Ventura County 2040 GENERAL PLAN

Chapter 8
Natural Resources

8 NATURAL RESOURCES

INTRODUCTION

This chapter summarizes the natural resources for the County of Ventura. It is organized into the following sections:

- Air Quality (Section 8.1)
- Biological Resources (Section 8.2)
- Scenic Resources (Section 8.3)
- Mineral Resources (Section 8.4)
- Energy Resources (Section 8.5)
- Cultural, Historical, Paleontological, and Archaeological Resources (Section 8.6)
- Appendices (Section 8.7)

SECTION 8.1 AIR QUALITY

Introduction

This section summarizes the existing air quality conditions and regulatory framework within Ventura County. Air quality is described as the concentration of various pollutants in the atmosphere for a specific location or area. Air quality conditions at a particular location are a function of the type and amount of air pollutants emitted into the atmosphere, the size and topography of the regional air basin, and the prevailing weather conditions. Air quality is an important natural resource that influences public health and welfare, the economy, and quality of life. Air pollutants have the potential to adversely impact public health, the production and quality of agricultural crops, native vegetation, visibility, buildings, and other structures and materials.

Regarding public health impacts from poor air quality, some people are more sensitive to poor air quality than others. These people include children, the elderly, and persons with asthma and other respiratory conditions. Land uses where these people are likely to be located are termed “sensitive receptors.” as sensitive receptors. Sensitive receptors include long-term healthcare facilities, hospitals, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds. Sensitive receptors are located throughout Ventura County.

Climate change and sources of greenhouse gas (GHG) emissions often are associated with air quality. These topics are addressed in Chapter 12 (Climate Change).

Major Findings

- Ventura County's air quality continues to improve towards the 2008 federal 8-hour (0.075 ppm) ozone standard, the county's most serious and pervasive air quality problem. In 1990, the county exceeded that standard 117 times but only seven times in 2014 and four times in 2015 and 2016. These improvements have occurred despite a 28 percent increase in county population from 1990 through 2016 and should continue as local, state, and federal clean air programs continue to reduce air emissions responsible for ozone formation. Likewise, the county is making similar progress towards the more the more stringent 2015 federal 8-hour (0.070 ppm) ozone standard.
- Ventura County is located in the South Central Coast Air Basin (SCCAB) and is under the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD). The VCAPCD is currently designated as a nonattainment area for ozone under the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS); additionally, Ventura County is listed as a nonattainment area for the CAAQS for respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}). A nonattainment area is defined as an area or air basin that does not meet the CAAQS or NAAQS for a given pollutant.
- Within Ventura County, mobile sources (e.g., cars and trucks) are the largest contributor of ozone precursor emissions, which include ROG and NO_X. Area-wide sources (e.g., paved road dust, agriculture, construction and demolition activities) in Ventura County are the largest contributor of PM_{10} and fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$) emissions.
- There are several hundred stationary sources in Ventura County that emit toxic substances and are subject to the Air Toxics"Hot Spots" Information and Assessment Act (AB 2588). The majority of locations are concentrated in incorporated or developed areas, including the cities of Oxnard, Camarillo, Thousand Oaks, Simi Valley, Ventura, Ojai, Santa Paula, and Fillmore. The primary purpose of the Hot Spots Act is to notify the public of facilities that have routine and predictable emissions of toxic air pollutants that may pose a significant health risk to nearby residents and workers. The Hot Spots Act also encourages those facilties to reduce the health risk to below the level of significance.
- Ventura County is not classified as having the potential to contain serpentine bedrock. Thus, there is no potential for naturally-occurring asbestos (NOA) in the unincorporated county.

Existing Conditions

In addition to the presence of existing air pollution sources, air quality is determined by a number of natural factors, such as topography, climate, and meteorology. These factors are discussed below.

Topography, Climate, and Atmospheric Conditions

Ventura County is located in the South Central Coast Air Basin, which comprises all of San Luis Obispo, Santa Barbara, and Ventura counties. The air above Ventura County often exhibits weak vertical and horizontal dispersion characteristics, which limit the dispersion of emissions and cause increased ambient air pollutant levels. Persistent temperature inversions prevent vertical dispersion. The inversions act as a

"ceiling" that prevent pollutants from rising and dispersing. The county's mountain ranges act as "walls" that inhibit horizontal dispersion of air pollutants.

The diurnal land/sea breeze pattern common in Ventura County recirculates air contaminants. Air pollutants are pushed toward the ocean during the early morning by the land breeze, and toward the east during the afternoon, by the sea breeze. This creates a "sloshing" effect, causing pollutants to remain in the area for several days. Residual emissions from previous days accumulate and chemically react with new emissions in the presence of sunlight, thereby increasing ambient air pollutant levels.

This pollutant sloshing effect happens most predominantly from May through October (smog season). Air temperatures are usually higher and sunlight more intense during the smog season. This explains why Ventura County experiences the most exceedances of the CAAQS and NAAQS for ozone during this six-month period (VCAPCD 2003).

Existing Sources of Criteria Air Pollutant and Precursor Emissions

The California Air Resources Board (CARB) developed a 2015 emissions inventory projection for Ventura County (CARB 2017). The county emissions inventory is projected from the 2012 base year emissions inventory used for the 2016 State Implementation Plan (SIP), last updated in February 2017 and is representative of the types of emissions sources that are included in the county. The county emissions inventory is summarized in Figure 8-1. A detailed breakdown of the county inventory is provided in Appendix 8B.

According to the CARB inventory, mobile sources, such as cars and trucks, are the largest contributor to the estimated air pollutant levels of ROG, sulfur oxides (SO_X), carbon monoxide (CO), and NO_X, accounting for approximately 41 percent, 80 percent, 83 percent, and 90 percent, of total respective emissions in Ventura County. Area-wide sources, such as the household, commercial and institutional use of solvents, agricultural pesticides and fertilizers, architectural coatings, consumer products, and other activities, account for about 33 percent of ROG emissions, while stationary sources, such as industrial and manufacturing activities, contribute about 26 percent of ROG emissions. Outer Continental Shelf sources (e.g., ocean going vessels, commercial harbor craft and offshore oil and gas production platforms) also contribute approximately 43 percent of total NO_x emissions (CARB 2017).

Area-wide sources account for approximately 83 percent and 66 percent of the county's PM_{10} and $PM_{2.5}$ emissions, respectively, most of which resulted from construction and demolition, vehicle travel on unpaved roads, vehicle travel on paved roads, residential fuel combustion activity, and fugitive windblown dust (CARB 2017).

FIGURE 8-1
CRITERIA AIR POLLUTANTS AND PRECURSORS (TONS PER DAY)

Ventura County
2015

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamicdiameter of 2.5 micrometers or less; ROG = reactive organic gases; SO_x = sulfur oxides. [Includes OCS emission sources]
Source: California Air Resources Board (CARB). 2015 Estimated Annual Average Emissions – Ventura County. 2016 SIP Emission Projection Data 2015 Estimated Annual Average Emissions by region https://www.arb.ca.gov/ei/emissiondata.htm]

Air Quality Monitoring and Existing Pollutant Concentrations

There are currently five active air quality monitoring stations in Ventura County as shown in Figure 8-2. Table 8-1 summarizes the stations and the pollutant concentrations measured at each station. Table 8-10 through Table 8-17 in Appendix 8C summarize the pollutant concentrations measured from these stations from 2009 to 2014. EPA and CARB use these monitoring data to designate areas according to attainment status for criteria air pollutants established by the agencies (see further discussion on attainment with the CAAQS and NAAQS under the Regulatory Setting section below). Notably, due to the differing geographical characteristics surrounding the air quality monitoring stations, concentrations of air pollutants and their achievement or violation of the CAAQS and NAAQS will be site-specific. Each pollutant is described further below.

TABLE 8-1 AIR QUALITY MONITORING IN VENTURA COUNTY[1]					
Monitoring Station	**Active**	**Ozone**	**$PM_{2.5}$**	**PM_{10}**	**NO_2**
Ojai - East Ojai Ave	Yes	Yes	Yes	No	No
Simi Valley - Cochran Street	Yes	Yes	Yes	Yes	Yes
Thousand Oaks-Moorpark Road	Yes	Yes	Yes	No	No
El Rio-Rio Mesa School #2	Yes	Yes	Yes	Yes	Yes
Simi Valley - Upper Air[2]	Yes	No	No	No	No
Piru - Pacific	Yes	Yes	Yes	No	No

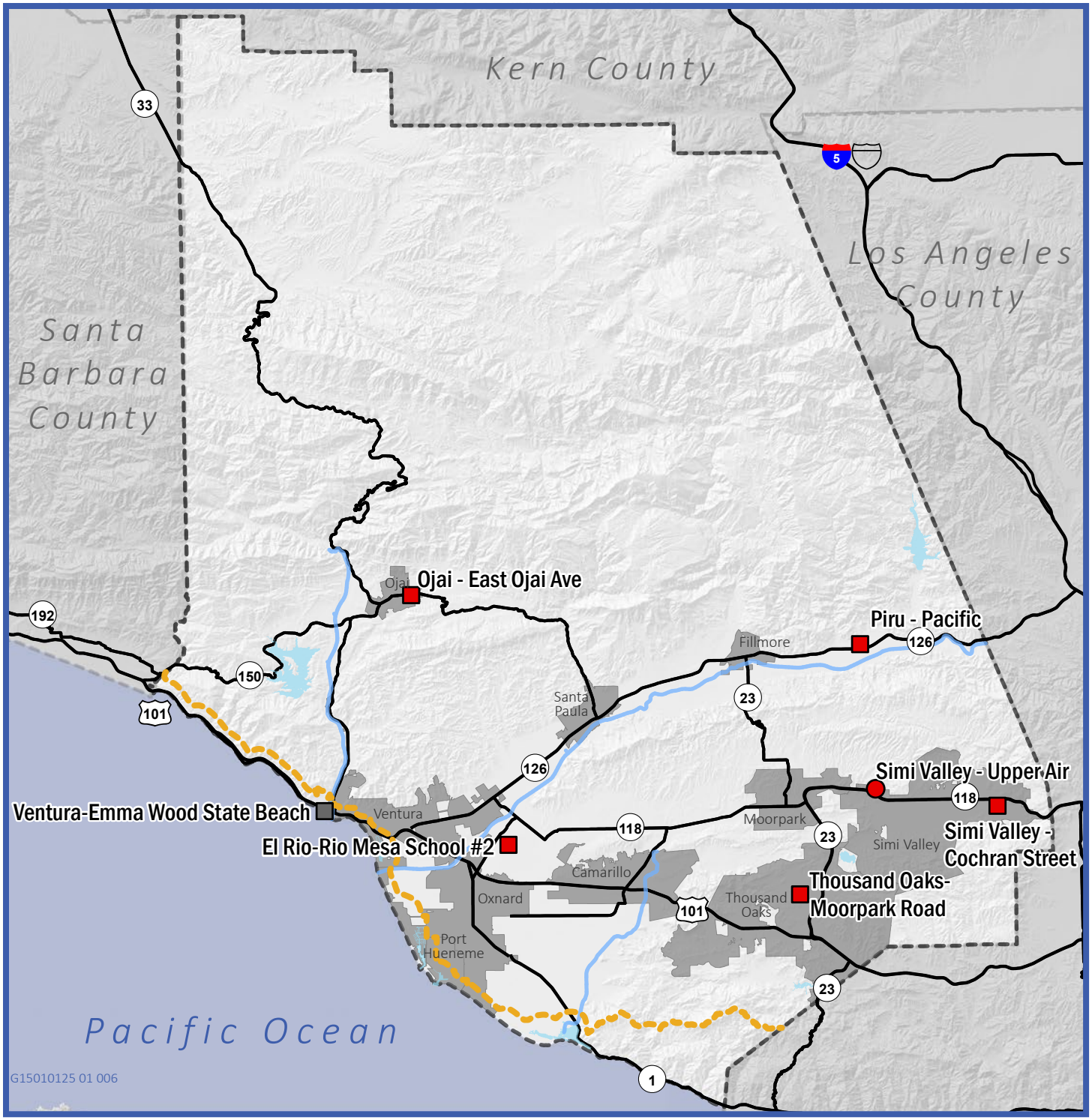
[1] CO data are not collected at any monitoring station in Ventura County.
[2]*Source: California Air Resources Board (CARB). iADAM Top 4 Summary. http://www.arb.ca.gov/adam/topfour/topfour1.php, Accessed March 22, 2016e. Data compiled by Ascent Environmental 2016.*

Ozone/Smog

Ozone, a photochemical oxidant and the main constituent of smog, is the most serious and widespread air pollution problem in the country and Ventura County's primary air pollution problem. Ozone is a pungent, colorless, toxic gas formed in the atmosphere through a complex series of chemical reactions and transformations involving reactive organic gases (ROG) and nitrogen oxides (NOx) in the presence of sunlight. These "ozone precursor" pollutants come from a wide variety of sources such as gasoline vapors, fuel combustion, chemical solvents, and household products such as hairsprays, deodorants, and cleaners.

Ozone is hazardous to human health. Ozone damages cells in the lungs, making the passages inflamed and swollen. Ozone also causes shortness of breath, nasal congestion, coughing, eye irritation, sore throat, headache, chest discomfort, breathing pain, throat dryness, wheezing, fatigue, and nausea. It can damage alveoli, the individual air sacs in the lungs where oxygen and carbon dioxide exchange occurs. Ozone also has been associated with a decrease in resistance to infections.

People most affected by ozone include the young, elderly, and athletes. Ozone may pose the worst health threat to people who already suffer from respiratory diseases such as asthma, emphysema, and chronic bronchitis, and those with cardiovascular diseases. It also diminishes the yield and quality of many agricultural crops, reduces atmospheric visibility, degrades soils and materials, and damages native vegetation.



Ventura County 2040 GENERAL PLAN

Figure 8-2
Air Quality Monitoring Stations

Map Date: June 16, 2016

Source: California Air Resources Board (ARB), 2016d; Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 7.5 15 Miles

N

- Coastal Zone Boundary
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

Monitoring Station

Active
- Pollutant Data
- Weather Data

Inactive
- Pollutant Data

Particulate Matter

Particulate matter (PM), also known as particle pollution, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Dust and other particulates exhibit a range of particle sizes. The size of particles is directly linked to their potential for causing health problems. PM_{10} is made up of dust and particulates that are 10 microns in diameter or smaller. $PM_{2.5}$ is made up of dust and particulates that are 2.5 microns in diameter or smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries, and automobiles react in the air. Fine particulate matter is considered a toxic air contaminant (see below for further discussion), and creates the greatest health problems because it can get deep into lung tissue, and may even get into the bloodstream (EPA 2016b).

As shown in Appendix 8C's Tables 8-14 and 8-16, Ventura County exceeded the CAAQS for PM_{10} 24-hour at the Simi Valley station from 2013 to 2015 and at the El Rio station from 2010 to 2015. Additionally, one exceedance of the NAAQS for $PM_{2.5}$ 24-hour at the Thousand Oaks station occurred in 2012 (see Table 8-12).

Toxic Air Contaminants

Toxic air contaminants (TACs), or hazardous air pollutants (HAPs), are regulated in California primarily through the Tanner Air Toxics Act of 1983 (AB 1807, Chapter 1047, Statutes of 1983), as well as the Air Toxic Hot Spot Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 set forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB identified 23 TACs and adopted EPA's list of HAPs as TACs. CARB added diesel PM ($PM_{2.5}$) to the list of TACs in 1998. Internal combustion engines are the primary source of diesel PM in Ventura County.

The goals of AB 2588 are to collect air toxics emissions data, identify facilities having localized effects, and to ascertain the health risks. TACs may include diesel, formaldehyde, benzene, acetaldehyde, and polycyclic aromatic hydrocarbons. Figure 8-3 shows the locations of the AB 2588-identified facilities, which include gasoline service stations, dry cleaning facilities, County-owned facilities, water treatment plants, and generators. Appendix 8D provides a complete summary of all the AB 2588-identified facilities locations within Ventura County.

Other sources of TACs in California include mobile sources, such as freeways and urban roadways with more than 100,000 vehicles per day, and rural roadways with more than 50,000 vehicles per day. Based on 2014 traffic data, several interstate and route segments located within or adjacent to Ventura County include annual average daily traffic volumes (AADT) in excess of 100,000 vehicles per day on State Route 23, State Route 118, and U.S. Highway 101. There are no segments along State Routes 1, 33, 34, 150, or 232, that exceed an AADT of 50,000 vehicles per day. There are two segments along Route 126 that have an AADT of 50,000. There are no rural roadways in Ventura County with volumes that exceed 50,000 vehicles per day (Caltrans 2016).

Methane

Methane is a VOC and a potent greenhouse gas. It is produced through anaerobic (without oxygen) decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and

distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion (EPA 2016c). It can also from naturally from oil seeps originating from the ocean floor.

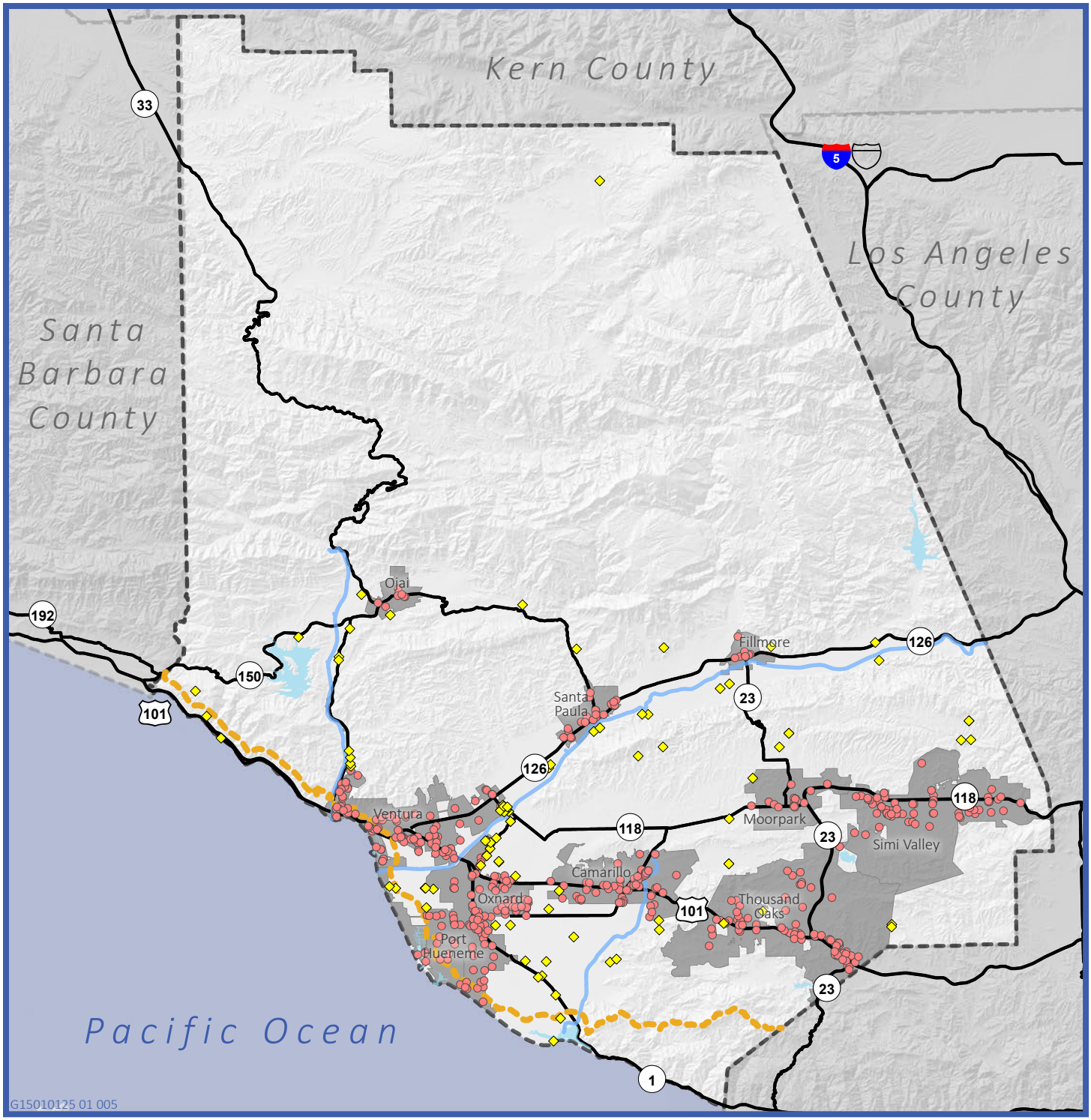
Odors

VCAPCD identifies typical land uses that have the potential to result in increases in odorous emissions and provides recommendations for siting new sensitive land uses in close proximity to these land uses. Examples of land uses that have the potential to generate considerable odors include, but are not limited to, wastewater treatment and pumping facilities, landfills, recycling and composting stations, greenwaste processing, food manufacturing and services, refineries, and chemical plants (VCAPCD 2003).

Naturally Occurring Asbestos

Asbestiform minerals (asbestos) occur naturally in rock and soil as the result of natural geologic processes, often in veins near earthquake faults in the coastal ranges and the foothills of the Sierra Nevada Mountains. Naturally occurring asbestos (NOA) is also found in other areas of the country. NOA can take the form of long, thin, separable fibers. Natural weathering or human disturbance can break NOA down to microscopic fibers, easily suspended in air. There is no health threat if asbestos fibers in soil remain undisturbed and do not become airborne. When inhaled, these thin fibers irritate tissues and resist the body's natural defenses. Asbestos, a known carcinogen, causes cancers of the lung and the lining of internal organs, as well as asbestosis and other diseases that inhibit lung function (Van Gosen and Clinkenbeard 2011).

The unincorporated county is not classified as having the potential to contain ultramafic bedrock, which can be associated with certain forms of serpentine rocks near the surface that could contain NOA (California Dept. of Conservation 2010). Ventura County is one of five counties in California with no reported asbestos occurrences, fibrous amphibole occurrences, and (or) ultramafic rock/serpentinite (Van Gosen and Clinkenbeard 2011). Thus, there is no potential for NOA in the unincorporated county.



Ventura County 2040 General Plan

Figure 8-3
Air Toxics 'Hot Spots' in Ventura County for 2014

Map Date: June 15, 2016

Source: California Air Resources Board (ARB), 2016d; Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 7.5 15 Miles

N

- Coastal Zone Boundary
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

AB 2588 Air Toxic Facilities

- Unincorporated Areas
- Incorporated Areas

Regulatory Setting

Air quality within Ventura County is regulated by EPA, CARB, and VCAPCD. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, State and local regulations may be more stringent.

Federal

U.S. Environmental Protection Agency

EPA is in charge of implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), enacted in 1970. Congress made the most recent major amendments to the CAA in 1990.

Criteria Air Pollutants

The CAA required EPA to establish the NAAQS. EPA established primary and secondary NAAQS for several different pollutants, expressed in maximum allowable concentrations generally defined in units of parts per million (ppm) or in micrograms per cubic meter ($\mu g/m^3$). The primary standards protect the public health and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP).

The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the basin. The Ventura County Air Pollution Control District has an approved SIP.

Toxic Air Contaminants/Hazardous Air Pollutants

Air quality regulations also focus on TACs, which are also referred to as HAPs by Federal agencies. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. (By contrast, for the criteria air pollutants, acceptable levels of exposure are determinable; Table 8-11 shows the established ambient standards). Instead, EPA and, in California, CARB, regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum achievable control technology or best available control technology for toxics to limit emissions. (See the discussion of TACs in the "State" section below for a description of CARB's efforts.) These, in conjunction with additional rules set forth by VCAPCD, described below under "Ventura County Air Pollution Control District," establish the regulatory framework for TACs.

Conformity

Conformity is a federal regulatory process required in nonattainment areas by the CAA Section 176(c) to ensure that federal funding and approvals will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. Section 176(c) prohibits federal agencies, departments, or instrumentalities from engaging in, supporting, providing financial assistance for, licensing, permitting or approving any action which does not conform to an approved state or federal clean air implementation plan. It is called conformity because federal agencies, such as the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and Federal Aviation Administration (FAA), must show that their actions "conform with" (i.e., do not undermine or hinder) approved SIPs.

A conformity determination is a formal demonstration that the subject federal action is consistent with the respective SIP. Federal agencies make such demonstrations by performing a conformity analysis of their proposed federal actions. The conformity analysis evaluates and documents project-related air pollutant emissions, local air quality impacts, and the potential need for emissions mitigation.

In 1993, EPA promulgated two sets of conformity regulations to implement Section 176(c): 1) transportation conformity and, 2) general conformity. Transportation conformity is applicable to highway and mass transit projects and to transportation plans, programs, and projects funded under the Federal Highway and Transit Act. General conformity is applicable to other non on-road federal actions and approvals such as, airport expansion projects or new water treatment facilities. The VCAPCD currently has two conformity rules, Rule 221, *Transportation Conformity*; and, Rule 220, *General Conformity*.

Transportation conformity is a CAA and FAST Act (Fixing America's Surface Transportation Act) regulatory process that coordinates air quality planning and transportation planning to help ensure that highway and transit projects will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. Conformity applies to transportation plans, transportation improvement programs, and highway and transit projects funded or approved by the FHWA and FTA. Both the RTP/SCS and FTIP must demonstrate conformity with the clean air plans covering the SCAG region, including Ventura County.

General conformity is a CAA regulatory process that applies to most federal actions other than transportation actions (see transportation conformity). Examples of federal actions subject to general conformity include issuance of Army Corps of Engineers permits, water and wastewater projects funded by EPA, and other federal projects impacting harbors, airports, and reservoirs. Certain federal projects are exempt from general conformity. Those include projects whose air pollutant emissions would be below specified de minimis emission levels (based on the area's nonattainment classifications) and certain projects presumed to conform, such routine maintenance activities, activities at Superfund sites, and activities conducted in response to national emergencies.

State

California Air Resources Board

Criteria Air Pollutants

CARB is responsible for preparing and enforcing the federally-required SIP to achieve and maintain NAAQS, as well as the CAAQS (Table 8-11, *see appendix*). CAAQS for criteria pollutants are equal to or more stringent than the corresponding NAAQS, and include other pollutants for which there are no NAAQS. Air basins are designated as being in nonattainment if the levels of a criteria air pollutant meet the CAAQS or NAAQS for the pollutant, and are designated as being in nonattainment if the concentration of a criteria air pollutant excceds the CAAQS or NAAQS.

CARB is the oversight agency responsible for regulating statewide air quality, but except for mobile sources, consumer products, and pesticides, (for which responsibility rests with CARB), implementation and administration of the CAAQS are delegated to 35 regional air pollution control districts and air quality management districts. These districts have been created for specific air basins, and have principal responsibility for: developing plans for their areas to comply with the NAAQS and CAAQS; developing control measures for non-vehicular sources of air pollution necessary to achieve and maintain NAAQS and CAAQS; implementing permit programs established for the construction, modification, and operation of air pollution sources; enforcing air pollution statutes and regulations governing non-vehicular sources; and developing employer-based trip reduction programs. CARB develops and implements control measaures for mobile sources, fuels, and consumer products. The California Department of Pesticide Regulation implements regulations to minimize air pollutants from agricultural pesticides.

Toxic Air Contaminants/Hazardous Air Pollutants

TACs in California are regulated primarily through the Tanner Air Toxics Act (AB 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB identified more than 21 TACs and adopted EPA's list of HAPs as TACs. CARB added diesel PM to the list of TACs in 1998.

Once a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Air Toxic Hot Spots Information and Assessment Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors and generators). In February 2000, CARB adopted a new public-transit bus fleet rule and emissions standards for new urban buses. These rules and standards included more stringent emission standards for some new urban bus engines, beginning with the 2002 model year; zero-emission-bus demonstration and

purchase requirements for transit agencies; and reporting requirements, under which transit agencies must demonstrate compliance with the public-transit bus fleet rule. Recent milestones included the low-sulfur diesel fuel requirement, and tighter emissions standards for heavy-duty diesel trucks (effective in 2007 and subsequent model years) and off-road diesel equipment (2011) nationwide. Over time, replacing older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) in California have been reduced significantly over the last decade; such emissions will be reduced further through a progression of regulatory measures (e.g., Low Emission Vehicle/ Clean Fuels and Phase II reformulated-gasoline regulations) and control technologies.

With implementation of CARB's risk reduction plan, it is expected that concentrations of diesel PM will be reduced statewide by 85 percent by 2020 from the estimated year-2000 level. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

Recommended Setback Distances from Sources of Air Toxics

CARB research substantiates the health risks to sensitive populations from exposure to high levels of TACs. CARB recommends local jurisdictions adopt land use policies to separate sensitive land uses a minimum of 500 to 1,000 feet from air toxic sources (CARB 2005). CARB's recommendations for siting new sensitive land uses for both mobile and stationary sources of air toxics is presented in Table 8-2 and published in "Air Quality and Land Use Handbook: A Community Health Perspective." The recommended setback distances in Table 8-2 are advisory and should not be interpreted as defined "buffer zones." CARB recognizes the opportunity for more detailed site-specific analyses and that land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues (CARB 2005).

TABLE 8-2
RECOMMENDATIONS FOR SITING NEW SENSITIVE LAND USES

Source Category	Advisory Recommended Setback Distance
Freeways and High-Traffic Roads	500 feet from a freeway or urban road with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	1,000 feet. Avoid location new sensitive land uses near entry and exit points.
Rail Yards	1,000 feet. Within 1 mile, consider siting limitation and mitigation approaches.
Ports	Immediately Downwind. Consult local air district.
Refineries	1,000 feet
Chrome Platers	1,000 feet
Dry Cleaners Using Perchloroethylene	300 to 500 feet
Gasoline Dispensing Facilities	300 feet

Source: California Air Resources Board (CARB). Air Quality and Land Use Handbook: A Community Health Perspective. 2005.

Ventura County Attainment Status

As described above, EPA and CARB adopted NAAQS and CAAQS (see Appendix 8A) to regulate air quality within air basins in the state and nation. Both agencies make determinations about the status of each air basin relative to these standards, known as attainment designations. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassifiable." Nonattainment areas are areas that do not meet air quality standards, whereas attainment areas meet air quality standards. "Unclassifiable" is used in areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS or CAAQS.

The most current National and California attainment designations for Ventura County are shown in Table 8-3 for each criteria air pollutant. Ventura County is in nonattainment status for Ozone (CAAQS and NAAQS standards) and PM10 (CAAQS standard).

TABLE 8-3
ATTAINMENT STATUS DESIGNATIONS
Ventura County

Pollutant	California Designation	National Designation
Ozone	Nonattainment	Nonattainment (serious)
PM_{10}	Nonattainment	Unclassifiable
$PM_{2.5}$	Attainment	Unclassifiable / Attainment
Carbon Monoxide	Attainment	Unclassifiable/ Attainment
Nitrogen Dioxide	Attainment	Unclassifiable / Attainment
Lead	Attainment	Unclassifiable / Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	No National Standard
Hydrogen Sulfide	Unclassifiable	No National Standard
Visibility Reducing Particles	Unclassifiable	No National Standard

[1] Notes: PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less.
Sources: California Air Resources Board (CARB). Area Designation Maps / State and National. http://www.arb.ca.gov/desig/adm/adm.htm#state, Accessed March 22, 2016e. United States Environmental Protection Agency (EPA). Criteria Pollutant Nonattainment Summary Report as of October 1, 2015. https://www3.epa.gov/airquality/greenbook/ancl3.html, Accessed March 22, 2016a.
Data compiled by Ascent Environmental 2016.

Regional

Ventura County Air Pollution Control District

VCAPCD, the local lead air quality regulatory agency for Ventura County, maintains air quality conditions through comprehensive programs of planning, regulation, enforcement, technical innovation, incentive programs and promotion of the understanding of air quality issues.

VCAPCD has primary responsibility for regulating stationary sources, including some area sources, within Ventura County. CARB regulates on-road motor vehicles, some off-road mobile sources, and consumer products, and sets motor vehicle fuel specifications in California. EPA regulates emissions

from locomotives, aircraft, heavy-duty trucks used in interstate commerce, and some off-road engines exempt from state authority or best regulated at the national level. State and federal laws prohibit local air districts from regulating mobile sources.

The 2016 Ventura County Air Quality Management Plan (AQMP), adopted by the Ventura County Air Pollution Control Board on February 14, 2017, presents Ventura County's strategy for attaining the federal 8-hour ozone standard as required by the CAAA of 1990.

VCAPD also inspects stationary sources to ensure they abide by permit requirements and applicable rules, responds to citizen complaints, monitors local ambient air quality and meteorological conditions, and implements other programs and regulations required by the CAA and the CCAA.

Criteria Air Pollutants

VCAPCD implements emissions rules and regultions to improve air quality in Ventura County. Examples of such rules and regulations are listed below:

- **Regulation II: Permits.** Specifies the air permit requirements for stationary sources of air pollutant emissions subject to VCAPCD permit authority. Examples of such pertinent rules included under this regulation are listed below:
    - **Rule 10 Permits Required.** Specifies the general air permit requirements for new and modified stationary sources of air pollutants.
    - **Rule 17 Disclosure of Air Toxics Information.** Lists the requirements and exemptions to the Air Toxics "Hot Spots" Information and Assessment Act.
    - **Rule 26 New Source Review.** Specifies the New Source Review provisions that are applicable to new, replacement, modified or relocated emissions units in Ventura County. Contains requirements for Emission Banking (Rule 26.4), Community Bank (26.5), and Power Plants (26.9). Also, it implements Federal major modifications (Rules 26.12) and Prevention of Significant Deterioration (Rule 26.13) requirements.
    - **Rule 36 New Source Review – Hazardous Pollutants.** Specifies requirements for construction or reconstruction of a major source of HAPs.
- **Regulation IV: Prohibitions.** Provides general and source-specific regulations. Examples of pertinent rules included under this regulation are listed below:
    - **Rule 51 Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. This rule covers the emission of odors.
    - **Rule 52 Particulate Matter – Concentration.** Sets limits for discharging particulate matter based on concentration.

- **Rule 53 Particulate Matter – Process Weight.** Sets limits for discharging particulate matter based on process weight.
- **Rule 55 Fugitive Dust.** The provisions of this rule shall apply to any operation, disturbed surface area, or man-made condition capable of generating fugitive dust, including bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations. Two sub-rules cover specific regulations pertaining to paved roads and public unpaved roads (Rule 55.1) and street-sweeping equipment (Rule 55.2).
- **Rule 56 Open Burning.** Specifies the requirements for open burning, including when open burning is allowed, the permissible purposes for open burning, and details regarding the approved process for burning materials.
- **Rule 62 Hazardous Materials and Airborne Toxics.** Details provisions applying to the discharge of any hazardous material or airborne toxic from any affected source.
- **Rule 71 Crude Oil and Reactive Organic Compound Liquids**. Establishes standards for oil production and processing facilities. These are five rules, including those pertaining to crude oil production and separation (Rule 71.1), storage (Rule 71.2), and Transfer (Rule 71.3) or reactive organic compound liquids.
- **Rule 72 New Source Performance Standards.** Establishes emission and/or performance standards for new plants and other sources. The rules are incorporated by reference to the provisions of Part 60, Chapter 1, Title 40, of the Code of Federal Regulations.
- **Rule 73 National Emission Standards for Hazardous Air Pollutants (NESHAPS).** Establishes emission and/or performance standards for sources of HAPs. The rules are incorporated by reference to the provisions of Part 61, Chapter 1, Title 40, of the Code of Federal Regulations.
- **Rule 74 Specific Source Standards.** Establishes standards for specific sources of pollution. There are thirty-three rules, including those pertaining to architectural coatings (Rule 74.2), cutback asphalt (Rule 74.4), fugitive emissions of ROCs at petroleum refineries and chemical plants (Rule 74.7), oilfield drilling operations (74.16), and wood product coatings (Rule 74.30).

Toxic Air Contaminants/Hazardous Air Pollutants

At the regional or local level, air pollution control or management districts may adopt and enforce CARB's control measures. VCAPCD Regulation 4, Rule 62 ("Hazardous Materials and Airborne Toxics") details provisions applying to the discharge of any hazardous material or airborne toxic from any affected source. Regulation 4, Rule 73 ("National Emission Standards for Hazardous Air Pollutants") sets emission and/or performance standards for hazardous pollutants. Sources of fugitive dust are regulated under VCAPCD Regulation 4, Rule 55 ("Fugitive Dust") (VCAPCD 2016).

Odors

VCAPCD developed Rule 51 ("Nuisance") to place general limitations on "...such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable

number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property" (VCAPCD 2016).

The VCAPCD Air Quality Assessment Guidelines include guidance on identifying and mitigating potential odor impacts that could result from siting a new odor source near sensitive receptors, or siting a new sensitive receptor near an existing odor source. Examples of land uses that have the potential to generate considerable odors include, but are not limited to, wastewater treatment and pumping facilities, landfills, recycling and composting stations, food manufacturing and services, refineries, and chemical plants (VCAPCD 2003).

Ventura County 2016 Air Quality Management Plan

The 2016 Air Quality Management Plan (AQMP) presents Ventura County's:

1) strategy to attain the 2008 federal 8-hour ozone standard;

2) attainment demonstration for the 2008 federal 8-hour ozone standard;

3) reasonable further progress demonstration for the 2008 federal 8-hour ozone standard; and

4) transportation emissions budget to ensure consistency with the federal transportation conformity rule (as explained below in the Regulatory Setting section).

Building on previous Ventura County AQMPs, the 2016 AQMP control strategy consists of a local component implemented by the VCAPCD and a combined state and federal component implemented by the CARB and U.S. EPA. The local strategy includes emission control measures carried forward from previous Ventura County clean air plans plus new and further study emission control measures. It also includes a transportation conformity budget that sets the maximum amount of on-road motor vehicle emissions produced while continuing to demonstrate progress towards attainment.[1]

The new control measures are proposed new rules and revisions to existing VCAPCD rules that District staff has found practicable for Ventura County. The further study measures are proposals that may help Ventura County achieve the federal and state ozone standards but need additional air quality, feasibility, and environmental scrutiny before VCAPCD staff can recommend them for adoption as District rules. They will become District rules and be implemented only if the District's governing board finds them to be practicable and appropriate for Ventura County. Both the new control measures and those further study measures recommended for adoption by VCAPCD staff will also serve to meet the "every feasible measure" requirement of the California Clean Air Act.

[1] The 2016 AQMP is available on VCAPCD's website at http://www.vcapcd.org/AQMP-2016.htm.

Several of the local control measures from the 2007 AQMP are not in the 2016 AQMP. In each case, VCAPCD staff determined that the measure is either obsolete or infeasible for Ventura County based on technological or economic considerations. However, no control measures from previous AQMPs would be deleted from the 2016 AQMP that would slow the county's progress towards attaining either the 2008 federal 8-hour ozone standard or the state ozone standards.

The 2016 AQMP includes a new transportation conformity budget for Ventura County. Transportation Conformity is a federal CAA regulatory process that coordinates air quality planning and transportation planning to help ensure that highway and transit projects will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS.

The 2016 AQMP contains an attainment demonstration (photochemical modeling and weight of evidence analyses) showing that Ventura County will attain the federal 2008 8-hour ozone by, July 20, 2020, the attainment date for serious ozone nonattainment areas under the 2008 fedeal ozone standard. Ventura County met the 1997 federal 8-hour ozone standard in 2012. However, the US EPA promulgated stricter ozone standards in 2008 and 2015 so Ventura County remains a serious Federal nonattainment area for ozone.

Ventura County's strategy for attaining the 2008 federal 8-hour ozone standard also relies on CARB's 2007 State Implementation Plan. The 2007 State Strategy, adopted by CARB on September 27, 2007, is a comprehensive and far-reaching set of emission reduction programs that focuses on reducing emissions from mobile sources, consumer products, and pesticides to significantly improve air quality throughout California and meet federal clean air standards for ozone and fine particulate matter (PM2.5).[2]

The most recent 2015 Triennial Assessment shows that Ventura County is still making significant progress towards meeting the CAAQS for ozone. Furthermore, the 2015 Triennial Assessment did not identify any deficiencies regarding meeting progress goals towards the state one-hour ozone standard. The "every feasible measure" analysis conducted for the 2015 Triennial Assessment did, however, identify three existing VCAPCD rules with potential for enhancement. It also identified one possible new control measure that would help Ventura County continue its progress towards attaining the CAAQS for ozone. This prospective new rule would reduce NO_x emissions from miscellaneous sources based on the South Coast Air Quality Management District Rule 1147 and Rule 1153.1. The purpose of this rule would be to reduce NO_x emissions from a variety of sources not currently regulated. It would require equipment with rated heat input of one million British Thermal Units per hour (MMBtu/hr) or greater to meet NO_x emissions limits in the range of 30 ppm to 60 ppm depending upon the process and process temperature.

Ventura County remains in attainment of the CAAQS for CO, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) (VCAPCD 2015).

[2] http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm#state.

VCAPCD Air Quality Assessment Guidelines

The Ventura County Air Quality Assessment Guidelines (Guidelines) is an advisory document that provides lead agencies, consultants, and project applicants with a framework and uniform methods for preparing air quality evaluations for environmental documents. The Guidelines, first adopted by the Ventura County Air Pollution Control Board in 1989 and last revised in 2003, are used by most jurisdictions in Ventura County.

Central to the Guidelines are specific air emissions significance criteria for determining whether a proposed development project would have a significant adverse impact on air quality. The Guidelines also provide mitigation measures that may be useful for mitigating the air quality impacts of proposed projects. It should be noted, however, that these are guidelines only, and their use is not required or mandated by the VCAPCD. The final decision of whether to use these Guidelines rests with the lead agency responsible for approving the project (VCAPCD 2003). The cities of Ventura, Oxnard, Ojai, Santa Paula, Fillmore, Thousand Oaks, Moorpark, and Camarillo use the VCAPCD Guidelines when assessing air quality impacts under CEQA. Table 8-4 outlines the recommend significance criteria outlined in the Guidelines.

TABLE 8-4
VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT RECOMMENDED SIGNIFICANCE CRITERIA[1]

Pollutant	Recommended Significance Criteria
Ozone	**Ojai Planning Area[2]** • ROG: 5 lb/day • NO_X: 5 lb/day **Remainder of Ventura County[3]** • ROG: 25 lb/day • NO_X: 25 lb/day
Ozone (Cumulative Impacts)	**Project-Specific Air Quality Management Plan (AQMP) Consistency:** A project with emissions of two pounds per day or greater of ROG, or two pounds per day or greater of NO_x that is found to be inconsistent with the AQMP will have a significant cumulative adverse air quality impact. A project with emissions below two pounds per day of ROG, and below two pounds per day of NO_x, is not required to assess consistency with the AQMP. **General Plan AQMP Consistency:** Any General Plan Amendment or revision that would provide directly or indirectly for increased population growth above that forecasted in the most recently adopted AQMP will have a significant cumulative adverse air quality impact.

TABLE 8-4
VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT RECOMMENDED SIGNIFICANCE CRITERIA[1]

Pollutant	Recommended Significance Criteria
Fugitive Dust	a) A project that may be reasonably expected to generate fugitive dust emissions in such quantities as to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property (see California Health and Safety Code, Division 26, §41700) will have a significant adverse air quality impact. b) A project for which an appropriate air dispersion modeling analysis shows a possible violation of an ambient particulate standard will have a significant adverse air quality impact.
Toxic Air Contaminants	Impacts from TACs may be estimated by conducting a health risk assessment (HRA). The HRA procedure involves the use of an air quality model and a protocol approved by the APCD. Following are the recommended significance criteria: a) The increase in lifetime probability of contracting cancer is greater than 10 in one million (as identified in an HRA). b) The increase in ground-level concentrations of non-carcinogenic toxic air pollutants would result in a Hazard Index of greater than 1 (as identified in an HRA).
Odors	A qualitative assessment indicating that a project may reasonably be expected to generate odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property (see California Health and Safety Code, Division 26, §41700) will have a significant adverse air quality impact.

[1] Notes: CO = carbon monoxide; lb/day = pounds per day; NO_x = nitrogen oxides; ROG = reactive organic gases; ROC = reactive organic compounds; SO_x = sulfur oxides; TAC = toxic air contaminants; TOG = total organic gases.
[2] The Ojai Planning Area is the area defined as the "Ojai Valley" in Ventura County Non-Coastal Zoning Ordinance, Article 12, Section 8112-2, plus the Ventura (Ojai) Non-growth Area (NGA) (as depicted in the 1987 Ventura County Air Quality Management Plan (AQMP), Appendix E-87, Figure E-1, "Map of Ventura County with Growth/Nongrowth Areas," page E-11). In the Guidelines, see Figure 3-1, "Ojai Planning Area." These thresholds are set in compliance with the Ojai Valley Area Plan Policy 1.1.2-1 (Ventura 2015).
[3] The City of Simi Valley uses a significance threshold of 13.7 tons per year of reactive organic compounds or nitrogen oxides, as directed by the City of Simi Valley City Council.
Sources: Ventura County Air Pollution Control District (VCAPCD). Ventura County Air Quality Assessment Guidelines. October 2003. Ventura, County of (Ventura). Ojai Valley Area Plan. March 2015. Data compiled by Ascent Environmental 2016.

Local

2005 Ventura County General Plan

The General Plan covers air quality in Chapter 1, Resources. Section 1.2 includes goals, policies, and programs related to air quality. The following Area Plans also contain applicable goals and policies related to air quality:

- El Rio/Del Norte Area Plan;
- Oak Park Area Plan;
- Ojai Valley Area Plan;
- Piru Area Plan;
- Saticoy Area Plan;
- Thousand Oaks Area Plan; and
- Lake Sherwood/Hidden Valley Area Plan.

2011 Initial Study Assessment Guidelines

The Initial Study Assessment Guidelines include criteria for evaluating environmental impacts for air quality. These can be found in Section 1. Air Quality.

2015 Ventura County Non-Coastal Zoning Ordinance

The Non-Coastal Zoning Ordinance regulates air quality through Article 12: Limitations on Issuance of Building Permits in the Ojai Valley to Protect Air Quality.

Key Terms

The following key terms used in this chapter are defined as follows:

Ambient Air Quality Standards. Maximum acceptable average concentrations of air pollutants during a specified period of time, calculated as described in the regulations specifying the standard.

Area-wide Source. Pollution where the emissions are spread over a wide area, such as consumer product use; fireplaces and wood stoves; natural gas-fueled space heaters and water heaters; road dust; landscape maintenance equipment; architectural coatings; solvents; and farming operations. Area-wide sources do not include mobile sources or stationary sources.

Mobile Source. On-road or off-road vehicles, boats, airplanes, lawn equipment and small utility engines.

Nonattainment Area. An area or air basin that does not meet California or National ambient air quality standards for a given pollutant.

Oxides of Nitrogen (NOx). A general term pertaining to compound of nitric oxide (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion

processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects.

Ozone. A strong smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy and ozone precursors such as hydrocarbons and oxides of nitrogen. Ozone exists in the upper atmosphere ozone layer (stratospheric ozone) as well as at the Earth's surface in the troposphere (ozone). Ozone in the troposphere causes numerous adverse health effects and is a criteria air pollutant. It is a major component of smog.

Ozone Precursors. Chemicals such a non-methane hydrocarbons and oxides of nitrogen, occurring either naturally or as a result of human activities, which contribute to the formation of ozone, a major component of smog.

Particulate Matter (PM). Any material, except pure water, that exists in the solid or liquid state in the atmosphere. The size of particulate matter can vary from coarse, wind-blown dust particles to fine particle combustion products.

Respirable Particulate Matter (PM_{10}). Dust and particulates that are 10 microns in diameter or smaller. PM_{10} is also referred to as respirable particulate matter.

Fine Particulate Matter ($PM_{2.5}$). Dust and particulates that are 2.5 microns in diameter or smaller. $PM_{2.5}$ is also referred to as fine particulate matter.

Reactive Organic Gas (ROG). A photochemically reactive chemical gas, composed on non-methane hydrocarbons that may contribute to the formation of smog.

Sensitive Receptors. Populations or uses that are more susceptible to the effects of air pollution than the general population, such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.

Stationary Source. A non-mobile source of air pollution such as a power plant, refinery, distribution center, chrome plating facility, dry cleaner, port, rail yard, or manufacturing facility.

Transportation Control Measures (TCM). As defined by Section 108(f)(1) of the Federal Clean Air Act (CAA), TCMs are strategies that reduce motor vehicle emissions by reducing vehicle trips, vehicle use, vehicle miles traveled (VMT), vehicle idling, and traffic congestion. The CAA requires TCMs, to meet progress milestones and demonstrate attainment of national air quality standards. Measures can include improved public transit, traffic flow improvements and high-occupancy vehicle lanes, shared ride services, pedestrian/bicycle facilities, and flexible work schedules.

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SECTION 8.2 BIOLOGICAL RESOURCES

Introduction

This section describes the existing conditions associated with biological resources within Ventura County, including vegetation and habitats, special-status species, and landscape-scale habitat linkages and wildlife corridors that ensure adequate habitat connectivity. The coastal location and varied topography of Ventura County provides the conditions for a rich and diverse ecosystem that includes nearshore marine, freshwater aquatic, and terrestrial habitats. Ventura County contains a range of elevations and habitats extending from beach and marshes, through chaparral and oak woodland, along riparian corridors of major rivers and tributaries, through agricultural and developed landscape, and into mountain ranges that support pinyon-juniper woodland. In turn, the diversity of habitats supports a diversity of plant and animal species, including special-status species (rare plants and animals that require special consideration and/or protection under state or federal law).

Major Findings

- Ventura County is home to unique and sensitive biological resources, including rare plant and animal species, coastal wetlands, extensive chaparral habitat, and riverine systems maintained mostly in a natural state.
- As of November 2016, there are 417 special-status plant and animal species known to occur in Ventura County, including species tracked by the California Department of Fish and Wildlife (CDFW) in their California Natural Diversity Data Base and those species that are on the Locally Important Plant and Wildlife Species lists maintained by Ventura County. As of November 8, 2016, 34 and 22 species in Ventura County are listed, proposed for listing, or candidates for listing by the federal government and State, respectively.
- Most of the northern half of Ventura County is within the boundary of the Los Padres National Forest. This is where the north-south trending Coastal Range transitions into the east-west Transverse Range. The Los Padres National Forest contains the majority of the Transverse Range in the county. These national forest lands contribute to habitat diversity and connectivity in the northwestern part of the county.
- The majority of development, both urban and agriculture, has occurred in the southern half of the county and in the lower elevations, and approximately nine percent of the county (which includes the unincorporated area and incorporated cities) is classified as developed.
- Three major riverine systems extend from the mountains to the ocean in the county: the Ventura River (watershed area is 227 square miles), the Santa Clara River, (watershed area is 1,634 square miles), and Calleguas Creek (watershed area is 343 square miles), and are habitat to many special-status species. Small portions of the Ventura River watershed occur in Santa Barbara County and small portions of the Santa Clara River and Calleguas Creek watersheds occur in Los Angeles County, however, the majority of these watersheds occur in Ventura County.
- Ventura County has one of the few major coastal to inland habitat connections remaining in the South Coast Ecoregion. It stretches from the Santa Monica Mountains at the coast to the Santa

Susana Mountains and the Sierra Madre Ranges of the Los Padres National Forest. This important network of habitat linkages has been identified as the Santa Monica-Sierra Madre Connection by South Coast Wildlands, as part of the South Coast Missing Linkages Project (SCMLP). South Coast Wildlands is a non-profit organization that works to ensure functional habitat connectivity across diverse wildland networks. They work with conservation biologists, ecologists, wildlife agencies, land managers and planners, and other conservation organizations to develop and implement regional conservation strategies.

- Ventura County also recognizes the three major river systems as landscape scale linkages because they provide contiguous habitat that facilitates wildlife movement through large regional areas. Within Ventura County, State Routes 126, 23, and 118 represent substantial barriers to wildlife migration.

Existing Conditions

The topography of Ventura County varies from coastal marsh at the Pacific Ocean to the mountains of the western Transverse Ranges in the north. Elevations range from sea level in the southern coastal zone of the county to 8,830 feet on Mount Pinos in the north. The mean annual precipitation varies from 15 to 35 inches, and the mean annual temperature is 61 degrees Fahrenheit.

The diversity of topography and climate in Ventura County has resulted in a range of vegetation communities, as described below. The diversity in vegetation supports a diversity of wildlife, including rodents, insectivores, hares, fox, coyotes, raptors (such as hawks, falcon, owls, and eagles) and numerous perching birds, from hummingbirds to ravens. The upland plant communities, such as the oak woodlands, pinyon-juniper, and mixed-conifer, provide habitats for larger animals as well, and include populations of bobcat and mountain lion, mule deer, and black bear, in addition to a game population of quail, rabbit, tree squirrel, band-tailed pigeon, dove, and turkey. Reptiles are commonly found throughout the county.

Vegetation Communities and Land Cover Types

The diverse climate and topography in Ventura County support a wide range of plant communities. Native vegetation in Ventura County can be categorized into eight general plant communities as defined in the Natural Communities List, which is California's expression of the National Vegetation Classification: chaparral, sage scrub, coastal salt marsh, coastal strand, grasslands, forest, woodland, and riparian. In addition, a significant portion of land in the county is developed or cultivated (agriculture). Many subgroups or localized distinct groups can be discerned within these broader vegetation communities. The major vegetation communities and other land cover types present in the unincorporated county are summarized in Table 8-5 and Figure 8-4.

Some vegetation communities are considered special-status based on Conservation Status Rankings developed by NatureServe's Natural Heritage Network and the CDFW. One purpose of the vegetation community classification is to assist in determining the level of rarity and imperilment of these communities at a state, national, and global level. Ranking provides their degree of imperilment (as measured by rarity, trends, and threats) and each is given a G (global) and S (state) rank. Ranks of G1-G3 and S1-S3 are considered rare or sensitive for the purposes of impact assessment under CEQA.

TABLE 8-5
VEGETATION COMMUNITIES
Ventura County
2008

Vegetation Community	Approximate Acres
Chaparral	318,529
Coastal salt marsh	1,567
Coastal strand	398
Agriculture	118,834
Annual grassland/upland herbaceous	46,077
Perennial grassland	10,756
Evergreen forest	66,544
Pinyon-juniper woodland	154,005
Valley and foothill woodland	108,038
Sage scrub	197,504
Riparian	17,660
Streambed	4,984
Open water/wetland	5,944
Rock/sand	12,283
Developed areas	110,379
Total Land Acreage	**1,269,502**

Source: Ventura County GIS Data, 2008

Kern County

Santa Barbara County

Los Angeles County

33

5

150

101

126

23

118

1

Anacapa Island

Pacific Ocean

Ventura County 2040 GENERAL PLAN

Figure 8-4
Vegetation Communities

Map Date: July 21, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

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Vegetation Communities

- Agriculture
- Chaparral
- Coastal Salt Marsh
- Coastal Strand
- Developed
- Evergreen Forest
- Native Perennial Grassland
- Pinyon Juniper Woodland
- Riparian
- Rock/Sand
- Sage Scrub
- Streambed
- Upland Herbaceous
- Valley Foothill Woodland
- Water/Wetland

FIGURE 8-4
VEGETATION COMMUNITIES AND LAND COVER

BACK OF FIGURE

Upland Habitats

Chaparral and sage scrub are the most commonly occurring upland vegetation in Ventura County. The second most common is woodland habitat including Pinyon-juniper and valley and foothill woodland. Grasslands, both native and non-native also occur throughout the county and often as an understory below woodland communities. Evergreen forest generally includes mixed conifers and occurs in the mountains in the northern half of the county.

The northern half of the county encompasses the transition from the northwest trending coastal mountain ranges to the east-west trending Transverse Ranges of southern California. Dominant plant communities of these mountain ranges include scrub oak, mixed chaparral, coast live oak, and coastal sage scrub at lower elevations; small areas of big-cone Douglas fir and canyon live oak on north-facing slopes and in canyons; and mixed conifer and Ponderosa pine at higher elevations. The three highest peaks in these mountains are Mount Pinos (8,831 feet), Frazier Mountain (8,017 feet), and Reyes Peak (7,525 feet). The Los Padres National Forest encompasses the majority (90 percent) of these habitats in the northern half of the county. Most native vegetation in the National Forest has been relatively well preserved as a result of the low level of development in this area. Development in the Lockwood Valley area (a private in-holding in the National Forest) has impacted the pinyon-juniper community; however, the higher elevations surrounding the valley contain nearly undisturbed stands of oak and mixed conifer vegetation.

In the southern half of the county, a large portion of the native vegetation has been displaced as a result of urban and agricultural development. For the most part, this development is confined to the fertile valleys and plains formed by the Ventura River, Santa Clara River, and Calleguas Creek, and along the coastline. The more difficult-to-develop mountainous areas in the southern half, such as Rincon Mountain, Red Mountain, South Mountain, Sulphur Mountain, Santa Susana Mountain, Simi Hills, and the Santa Monica Mountains still support some measure of native plant communities. However, development (including large lot subdivisions, rural development, and expansion of orchards) continues to fragment these habitats and threaten the viability of native plant communities.

Chaparral is the most common plant community found in the mountains of Ventura County. It can be divided into the lower chaparral (from about 1,000-5,000 feet) and the upper chaparral (above 5,000 feet) and occurs on very steep, dry slopes where most other plants cannot grow. This community consists of densely growing evergreen scrub oak and other drought-resistant woody shrubs, such as ceanothus, chamise, redshanks, coffeeberry, laurel sumac, manzanita, and toyon. Large expanses of chaparral are found in the Santa Monica Mountains, including protected areas within the Santa Monica Mountains National Recreation Area. However, in unprotected areas, chaparral is threatened by rural development and brush clearing for fire protection. Chaparral is a fire-adapted plant community, and many plant species that are found in chaparral require fire for regeneration.

The coastal sage-scrub community is found on dry slopes, usually near the coast below 3,000 feet. It is composed of low-growing, aromatic, and drought-deciduous shrubs, such as California sagebrush, black sage, purple sage, white sage, California buckwheat, coast brittle-bush, and golden yarrow, mixed with larger shrubs, such as toyon and lemonade berry, and herbaceous plants, grasses, and in some places, cacti and succulents. The drought-deciduous leaves of most plants within this community are softer than the waxy, tough leaves of chaparral plants. Substantial areas of this community remain on South Mountain, in the Santa Paula area, and in the Simi Hills and Santa Susana Knolls areas; however, these areas are increasingly impacted by encroaching development.

Oak woodlands occur on foothills and in valleys throughout Ventura County. A study completed in 2007 to support the development of an Oak Woodland Management Plan for Ventura County (July 2007), identified 77,000 acres of oak woodlands in the county. Roughly half of this total lies within the Los Padres National Forest and the remaining acreage is privately owned. These communities are typically dominated by coast live oak (*Quercus agrifolia*), the predominant oak type in Ventura County, valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), or canyon live oak (*Quercus chrysolepis*). Oak savannas occur where oaks are more spread apart with extensive grassland in the understory. Oak woodlands correlate with both the Ventura River and Santa Clara River watersheds and important wildlife corridors, as they are a good source of food and shelter, and the understory is less dense than neighboring chaparral communities. The study also revealed that the majority of the oak woodlands in the county are in moderate to dense stands and only one percent of the total oak woodland acreage contains small trees, indicating a potential problem with oak regeneration and recruitment.

Annual grassland habitat occurs in open fields and rolling hills and as an understory below woodlands. It is dominated by non-native grasses with scattered native and non-native forbs. Common species include wild oats (*Avena spp*.), ripgut brome (*Bromus diandrus*) and Italian ryegrass (*Festuca perennis*). Patches of California native grassland are interspersed in the annual grassland, and include native perennial bunch grasses such as purple and foothill needlegrass. Pockets of native grasses remain in the La Jolla Valley in Point Mugu State Park in the Santa Monica Mountains.

Coastal Habitats

Ventura County occupies 42 miles of coastline (Ventura County Assessor's Office 2016). Coastal habitats in the county are categorized into coastal salt marsh and coastal strand habitat (sandy beach and dune habitat above the high tide line) in the County's GIS data. In addition, the County retains land use authority in certain areas up to the mean high tide line which also can encompass other nearshore habitat such as rocky intertidal zones and eelgrass beds. There are approximately 1,567 acres of coastal salt marsh in the county. Coastal salt marshes develop along the intertidal shores of bays and estuaries. Cordgrass (*Spartina foliosa*), occurs in the intertidal zone, characterized by lower salinity and periodic exposure to the air. Towards shore where conditions are drier, pickleweed species belonging to the genus *Salicornia* are common.

The coastal marsh area within the county with the richest biological diversity is the Mugu Lagoon, which shelters the remnants of many plant, bird, fish, and insect populations that once inhabited preexisting lagoons and extensive coastal habitat from the Ventura River to the Santa Monica Mountains. Other remaining coastal wetlands include the McGrath Lake (a natural fresh water lake formed by the dune system) and Ormond Beach areas, and the mouths of the Ventura and Santa Clara Rivers which are identified as important habitat for several bird species.

The coastal strand vegetation community extends from the high tide zone inward in a narrow band. Many of the plants in this community have adapted to shifting sands, with stems that lay prostrate over the sand, or leaves that curve downward and lay flat along the sand. Characteristic plants include sand verbena (*Abronia maritima*), silver beachweed (*Ambrosia chamissonis*), saltbush (*Atriplex* sp.), beach morning glory (*Calystegia soldanella*) and the non-native iceplant (*Mesembryanthemum* sp.). Coastal strand habitat provides a rich diversity of invertebrate species that serve as a food sources for a large number of shorebird species. Locally, coastal strand habitat also offers habitat for grunion spawning. Rocky intertidal habitat and eelgrass beds provide shelter, foraging, and breeding habitat for thousands of invertebrates and fish that serve as the base of the food web for marine mammals and birds.

Coastal habitats, particularly coastal wetlands, are significant biological resources that are threatened by competing land uses. The objectives and policies of the County's Coastal Area Plan require enhanced protection for Environmentally Sensitive Habitat Areas (ESHA). ESHA includes habitats that are either rare or especially valuable because of their special role in an ecosystem which could be easily disturbed or degraded by human activities or development. ESHA include, but are not limited to habitats such as coastal dunes, wetlands, creek corridors; habitats that are utilized during a critical life stage of a protected species (e.g., nesting or roosting areas); and identified habitats that serve as important species movement corridors between large protected areas (Ventura County Coastal Area Plan). Coastal habitat in Ventura County supports several special-status species such as tidewater goby, California least tern, and western snowy plover.

River Systems

Three major river systems flow through Ventura County to the Pacific Ocean. These river systems provide important riparian habitats, including mulefat scrub and southern willow scrub in areas that are frequently flooded, and riparian forests of willow, cottonwood, sycamore, alder, and coastal live oak along permanent streams that are less frequently or intensely flooded. Many tributaries to these rivers contain flowing water only seasonally or only after storm events, but nevertheless, these intermittent and ephemeral streams can provide habitat and seasonal water sources for special-status plants and animals, and serve as important wildlife corridors. A portion of the Malibu Creek watershed, which supports a population of southern steelhead, is also within Ventura County. Approximately 17,660 acres of riparian habitat occur within Ventura County. In addition to providing habitat for a variety of wildlife, riparian vegetation also provides riverbank protection, erosion control and improved water quality, and shading/cooling of river water.

The Ventura River begins at the confluence of Matilija Creek and North Fork Matilija Creek, 16 miles upstream from the Pacific Ocean in the Topa Topa Mountains just north of the Ojai Valley. San Antonio Creek and Coyote Creek join the Ventura River approximately halfway between the headwaters and the ocean. The Ventura River provides habitat for several special-status wildlife species, including, southern steelhead, least Bell's vireo, and California red-legged frog in the watershed, as well as western snowy plover, brown pelican, California least tern, and tidewater goby at the mouth of the river.

The Santa Clara River bisects the southern half of the county, starting on the north slope of the San Gabriel Mountains in Los Angeles County and flowing west along the north side of the Santa Susana Mountains and out to the Oxnard Plain where it meets the Pacific Ocean between the cities of Ventura and Oxnard. The Santa Clara River is a natural river and none of it is concrete-lined. Its waters support the majority of the county's agriculture from the river valley north of the Santa Susana Mountains to the Oxnard Plain. The endangered southern steelhead trout and locally important Pacific lamprey, both anadromous fish, use this river and its tributaries for spawning habitat; however, connectivity issues greatly impede spawning and migration through many sections. This is the largest river system in the county, and provides habitat for the unarmored three-spine stickleback, southwestern pond turtle, and least Bell's vireo.

Both the Ventura and Santa Clara River watersheds are important for the recovery of southern steelhead and are identified for priority recovery actions in the Recovery Plan for the species (NMFS 2012). Calleguas Creek flows through the southeast corner of the county from the Santa Susana Pass on the eastern county boundary southwest through Camarillo to the west side of the Santa Monica Mountains and out to the Mugu Lagoon on the Pacific Ocean. Calleguas Creek once flowed only seasonally from its headwaters near the City of Simi Valley onto the Oxnard Plain, but now flows perennially with input

from wastewater treatment plants, secondary surface flows originating from rising groundwater, agricultural and urban runoff, and periodic stormwater flows. Tributaries include Arroyo Simi in Simi Valley, Conejo Creek in Camarillo, and the Revlon Slough in the Oxnard Plain. This watershed provides habitat for more than 30 special status species, and is an important source of fresh water that directly affects water quality and the health of in Mugu Lagoon (Calleguas Municipal Water District 2004; Calleguas Municipal Water District 2005).

Many intermittent drainages lead straight to the ocean along the coast of Ventura County (e.g., Red Mountain area, barrancas leading to the beaches). These drainages directly affect ocean water quality and can be affected by adjacent land uses resulting in delivery of sediment and other pollutants to the ocean. Irrigation from adjacent land uses can also introduce a permanent or semi-permanent source of water into these drainages, where naturally there is none, thereby changing the water regime and habitat within these areas.

Special-Status Species

As of November 2016, there are 417 special-status plant and animal species that are known to occur in the county. A total of 169 species were identified from the California Natural Diversity Database (CNDDB), and a total of 286 plant species and 13 wildlife species are on the Ventura County's Locally Important Plant and Animal lists. One animal and 50 plant species on the Locally Important lists for Ventura County overlap with the CNDDB records, but most species are not recorded on the CNDDB lists. These sources were used to generate the table of special-status species.

Special-status species are species whose populations are limited and/or declining, and survival and reproduction is threatened by habitat loss or degradation. Federal and state agencies as well as conservation organizations maintain lists of these species. Those species that are officially listed as threatened or endangered under the federal Endangered Species Act or California Endangered Species Act are protected by law. Lists of special-status species used by the county to determine project impacts include the following:

- Species listed as Endangered, Threatened, or Rare under the federal or state Endangered Species Acts; state and federal Candidate species, and California Fully Protected species;
- Species tracked by the CNDDB, which are considered by the CDFW to be those species of greatest conservation concern and are listed on CDFW's lists of Special Plants and Special Animals (e.g., plant species on the California Native Plant Society's [CNPS] California Rare Plant Rank, NatureServe's Natural Heritage Network Conservation Status Rankings, CDFW Species of Special Concern etc.); and
- Ventura County Locally Important Species.

As of November 2016, a total of 34 federally listed, proposed listed, or candidate species occur in Ventura County. Federally listed endangered and threatened plant and wildlife species with recent (within the last 10 years) records of occurrence in Ventura County include, but are not limited to, California condor (*Gymnogyps californianus*), arroyo toad (*Anaxyrus californicus*), southwestern willow flycatcher (*Empidonax traillii extimus*), southern steelhead (*Oncorhynchus mykiss*), coastal California gnatcatcher (*Polioptila californica californica*), California red-legged frog (*Rana draytonii*), least bell's vireo (*Vireo bellii pusillus*), Braunton's milk-vetch (*Astragalus brauntonii*), Kern mallow (*Eremalche parryi*), and

Lyon's pentachaeta (*Pentachaeta lyonii*). A total of 22 State listed or candidate species occur in Ventura County.

Many of the endangered or threatened species in the county rely on marsh or river systems and associated riparian vegetation, such as least Bell's vireo, steelhead, and southwestern willow flycatcher. Others, such as California condor have extensive ranges and require large habitat corridors. Some special-status wildlife species have multiple habitat needs, and conservation and management of all habitats used throughout the animals' life is needed in order to sustain the species. For example, California red-legged frog requires aquatic habitat for breeding, and upland habitat for dispersal and aestivation. Steelhead require gravel-bottomed streams for spawning and also use estuarine and ocean waters during their life cycle. Specialstatus species identified by CDFW in Ventura County are listed in Table 8-6 (plants) and Table 8-7 (animals). The status and taxonomy of these species change frequently. The CDFW's CNDDB and associated lists should be consulted for the latest information. In addition, several species listed in Table 8-6 and Table 8-7 only have populations remaining on the Channel Islands, and no longer occur in inland areas within the county. The CDFW's CNDDB records, literature, and resource agencies should be consulted for the latest information. Finally, species on the Ventura County Locally Important Plant and Wildlife Species lists are not presented in Table 8-6 and Table 8-7 as these lists change frequently. The last update of the Locally Important Species List occurred in 2014, and the most recent update was initiated in 2017.

CRITICAL HABITAT IS A SPECIFIC GEOGRAPHIC AREA IDENTIFIED BY THE FEDERAL GOVERNMENT AS THE HABITAT THAT CONTAINS FEATURES ESSENTIAL FOR THE CONSERVATION OF A FEDERALLY-LISTED THREATENED OR ENDANGERED SPECIES AND THAT MAY REQUIRE SPECIAL MANAGEMENT AND PROTECTION. CRITICAL HABITAT GENERALLY HAS NO EFFECT ON SITUATIONS THAT DO NOT INVOLVE A FEDERAL AGENCY, AND ITS DESIGNATION REQUIRES THESE AGENCIES TO CONSULT WITH USFWS AND/OR NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA) NATIONAL MARINE FISHERIES SERVICE (NMFS) ON ACTIONS THEY CARRY OUT, FUND, OR AUTHORIZE TO ENSURE THAT THEIR ACTIONS WILL NOT DESTROY OR ADVERSELY MODIFY CRITICAL HABITAT. HOWEVER, THE LOSS OF CRITICAL HABITAT IS ALSO CONSIDERED A POTENTIALLY SIGNIFICANT IMPACT UNDER THE COUNTY'S CEQA THRESHOLDS. FIFTEEN FEDERALLY-LISTED SPECIES HAVE FINAL DESIGNATED CRITICAL HABITAT WITHIN VENTURA COUNTY, INCLUDING THE ARROYO TOAD, CALIFORNIA CONDOR, COASTAL CALIFORNIA GNATCATCHER, WESTERN SNOWY PLOVER, SOUTHWESTERN WILLOW FLYCATCHER, SOUTHERN STEELHEAD, TIDEWATER GOBY, CONSERVANCY FAIRY SHRIMP, RIVERSIDE FAIRY SHRIMP, VERNAL POOL FAIRY SHRIMP, CALIFORNIA RED-LEGGED FROG, LEAST BELL'S VIREO, AND PLANT SPECIES, LYON'S PENTACHAETA, BRAUNTON'S MILK-VETCH, AND VENTURA MARSH MILK-VETCH.

Figure 8-5 depicts critical habitat locations for plants and animal species in the county.

TABLE 8-6 SPECIAL-STATUS PLANT SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**CNPS Rare Plant Rank**
Acanthoscyphus parishii var. *abramsii* Abrams' oxytheca		G4?T1T2/S2	1B.2
Allium howelii var. *clokeyi* Mt. Pinos onion		G4T2/S2	1B.3
Aphanisma blitoides Aphanisma		G3G4/S2	1B.2
Astragalus brauntonii Braunton's milk-vetch	FE	G2/S2	1B.1
Astragalus didymocarpus var. *milesianus* Miles' milk-vetch		G2T2/S2	1B.2
Astragalus pycnostachyus var. *lanosissimus* Ventura marsh milkvetch	FE, SE	G2T1/S1	1B.1
Astragalus traskiae Trask's milk-vetch	SR	G3/S3	1B.2
Atriplex coulteri Coulter's saltbush		G3/S1S2	1B.2
Atriplex pacifica South coast saltscale		G4/S2	1B.2
Atriplex serenana var. *davidsonii* Davidson's saltscale		S1	1B.2
Berberis pinnata ssp. *Insularis* Island barberry	FE, SE	G5T1/S1	1B.2
Boechera hoffmannii Hoffmann's rockcress	FE	G1G2/S1S2	1B.1
California macrophylla Round leaved filaree		G3?S3?	1B.2
Calochortus clavatus var. *gracilis* Slender mariposa lily		G4T2T3/S2S3	1B.2
Calochortus fimbriatus Late-flowered mariposa lily		G3/S3	1B.3
Calochortus palmeri var. *palmeri* Palmer's mariposa lily		G3T3?/S3?	1B.2
Calochortus plummerae Plummer's mariposa lily		G4/S4	4.2
Castilleja hololeuca Island white-felted paintbrush		G3/S3	1B.2

TABLE 8-6 SPECIAL-STATUS PLANT SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**CNPS Rare Plant Rank**
Caulanthus lemmonii Lemmon's jewelflower		G3/S3	1B.2
Chaenactis glabriuscula var. *orcuttiana* Orcutt's pincushion		G5T1T2/S1	1B.1
Chloropyron maritimum ssp. *maritimum* Salt marsh bird's-beak	FE, SE	G4?T1/S1	1B.2
Chorizanthe blakleyi Blakley's spineflower		G2G3/S2S3	1B.3
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	FPT, SE	G2T1/S1	1B.1
Cryptantha traskiae Trask's cryptantha		G2/S2	1B.1
Deinandra minthornii Santa Susana tarplant	SR	G2/S2	1B.2
Delphinium parryi ssp. *blochmaniae* Dune larkspur		G4T2/S2	1B.2
Delphinium umbraculorum Umbrella larkspur		G3/S3	1B.3
Dithyrea maritima Beach spectaclepod	ST	G1/S1	1B.1
Dudleya blochmaniae ssp. *blochmaniae* Blochman's dudleya		G3T2/S2	1B.1
Dudleya cymosa ssp. *agourensis* Agoura Hills dudleya	FT	G5T2/S2	1B.2
Dudleya cymosa ssp. *marcescens* Marcescent dudleya	FT, SR	G5T2/S2	1B.2
Dudleya parva Conejo dudleya	FT	G1/S1	1B.2
Dudleya verityi Verity's dudleya	FT	G1/S1	1B.1
Dudleya virens ssp. *insularis* Island green dudleya		G3?T3/S3	1B.2
Eremalche kernensis Kern mallow	FE	G3G4T2T3/S2	1B.1
Eriogonum crocatum Conejo or Saffron buckwheat	SR	G1/S1	1B.2
Eriogonum grande var. *timorum* San Nicolas Island buckwheat	SE	G4T1/S1	1B.1
Eriogonum kennedyi var. *alpigenum* Southern alpine buckwheat		G4T3/S3	1B.3
Erysimum insulare Island wallflower		G3/S3	1B.3
Fritillaria ojaiensis Ojai fritillary		G2/S2?	1B.2

TABLE 8-6 SPECIAL-STATUS PLANT SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**CNPS Rare Plant Rank**
Heuchera maxima Island alumroot		S3	1B.2
Horkelia cuneata var. *Puberula* Mesa horkelia		G4T1/S1	1B.1
Imperata brevifolia California satintail		G4/S3	2B.1
Isocoma menziesii var. *decumbens* Decumbent goldenbush		G3G5T2T3/S2	1B.2
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields		G4T2/S2	1B.1
Lavatera assurgentiflora ssp. *assurgentiflora* Island mallow		G1T1/S1	1B.1
Layia heterotricha Pale-yellow layia		G2/S2	1B.1
Lepechinia rossii Ross' pitcher sage		G1/S1	1B.2
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass		G5T3/S3	4.3
Lomatium insulare San Nicolas Island lomatium		G3/S2S3	1B.2
Lycium verrucosum San Nicolas Island desert-thorn		GXQ/SX	1A
Malacothamnus davidsonii Davidson's bush-mallow		G2/S2	1B.2
Malacothrix foliosa ssp. *crispifolia* Wavy-leaved malacothrix		G4T1/S1	1B.2
Malacothrix junakii Junak's malcothrix		G1/S1	1B.1
Malacothrix similis Mexican malacothrix		G2G3/SH	2A
Malacothrix squalida Island malacothrix	FE	G1S1/S1	1B.1
Monardella hypoleuca ssp. *hypoleuca* White-veined monardella		G4T2T3/S2S3	1B.3

TABLE 8-6 SPECIAL-STATUS PLANT SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**CNPS Rare Plant Rank**
Monardella linoides ssp. *oblonga* Tehachapi monardella		G5T2/S2	1B.3
Monardella sinuata ssp. *gerryi* Gerry's curly-leaved monardella		G3T1/S1	1B.1
Navarretia ojaiensis Ojai navarretia		G2S2/S1	1B.1
Navarretia peninsularis Baja navarretia		G3/S2	1B.2
Nemacladus secundiflorus var. *robbinsii* Robbins' nemacladus		G3T2/S2	1B.2
Nolina cismontana Chaparral nolina		G3/S3	1B.2
Orcuttia californica California Orcutt grass	FE, SE	G1/S1	1B.1
Orobanche parishii ssp. *brachyloba* Short-lobed broomrape		G4?T4/S3	4.2
Orobanche valida ssp. *valida* Rock Creek broomrape		G4T2/S2	1B.2
Pentachaeta lyonii Lyon's pentachaeta	FE, SE	G1/S1	1B.1
Pseudognaphlium leucocephalum White rabbit-tobacco		G4/S2	2B.2
Quercus dumosa Nuttall's scrub oak		G3/S3	1B.1
Sagittaria sanfordii Sanford arrow-head		G3/S3	1B.2
Senecio aphanactis Chaparral ragwort		G3/S2	2B.2
Sidalcea neomexicana Salt Spring checkerbloom		G4/S2	2B.2
Streptanthus campestris Southern jewelflower		G3/S3	1B.3
Suaeda esteroa Estuary seablite		G3/S2	1B.2
Symphyotrichum greatae Greata's aster		G2/S3	1B.3
Texosporium sancti-jacobi Woven-spored lichen		G3/S1	3
Tortula californica California screw moss		G2G3/S2S3	1B.2
Viola pinetorum var. *grisea* Grey-leaved violet		G4G5T3?/S3?	1B.3

TABLE 8-6 SPECIAL-STATUS PLANT SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**CNPS Rare Plant Rank**

Status Key

Federal
FE: Federally-listed Endangered
FT: Federally-listed Threatened
FPT: Federally Proposed Threatened
FC: Candidate for federal listing

State
SE: California-listed Endangered
ST: California-listed Threatened
SR: California-listed Rare

Global NatureServe Rank:
G1: Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2: Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3: Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4: Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5: Secure – Common; widespread and abundant.
GH: All sites are historical; the species has not been observed for at least 20 years.
GX: All sites are extirpated; this species is extinct in the wild.
GXC: Extinct in the wild; exists in cultivation.
G1Q: The species is very rare, but there are taxonomic questions associated with it.
T-Rank refers to the status of only the subspecies.
GnGn: Range Rank - A numeric range rank (e.g., G2G3) is used to indicate any range of uncertainty about the status of the species or community.
?: Qualifier: Inexact or Uncertain - A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank.

State NatureServe Rank:
S1: Critically Imperiled - Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2: Imperiled - Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state.
S3: Vulnerable - Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4: Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5: Secure - Common, widespread, and abundant in the state.
SnSn: Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status

TABLE 8-6 SPECIAL-STATUS PLANT SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**CNPS Rare Plant Rank**
of the species or community. ?: Qualifier: Inexact or Uncertain - A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank. SNR: Unranked - State conservation status not yet assessed. SU: Unrankable - Currently unrankable due to a lack of information or due to substantially conflicting information about status or trends. SH: Possibly Extirpated (Historical) - Species or community occurred historically in the state, and there is some possibility that it may be rediscovered. All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists. SX: Presumed Extirpated - Species or community is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered. **California Native Plant Society (CNPS):** Rank 1A – Presumed extinct in California; Rank 1B – Rare, threatened, or endangered in California and elsewhere; Rank 2A – Plants presumed extirpated in California, but more common elsewhere; Rank 2B – Rare, threatened, or endangered in California, but more common elsewhere; Rank 3 – Plants for which more information is needed – A review list; and Rank 4 – Plants of limited distribution – A watch list. **Additional threat ranks endangerment codes are assigned to each taxon or group as follows:** .1 – Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat). .2 – Fairly endangered in California (20-80% occurrences threatened). .3 – Not very endangered in California (<20% of occurrences threatened or no current threats known).			

TABLE 8-7 SPECIAL-STATUS ANIMAL SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**Other**
Amphibians			
Anaxyrus californicus Arroyo toad	FE	G2G3/S2S3	SSC
Batrachoseps pacificus Channel Islands slender salamander		G4/S3S4	
Rana boylii Foothill yellow-legged frog		G3/S3	SSC
Rana draytonii California red-legged frog	FT	G2G3/S2S3	SSC
Spea hammondii Western spadefoot		G3/S3	SSC
Taricha torosa Coast Range newt		G4/S4	SSC
Reptiles			
Anniella pulchra pulchra *Silvery legless lizard*		G3G4T3T4Q/S3	SSC, USFS S
Aspidoscelis tigris stejnegeri Coastal whiptail		G5T5/S3	SSC
Charina umbratica Southern rubber boa	ST	G2G3/S2S3	USFS S
Diadophis punctatus modestus San Bernardino ringneck snake		G5T2T3Q/S2?	USFS S
Emys marmorata *Western pond turtle*		G3G4/S3	SSC
Gambelia sila Blunt-nosed leopard lizard	FE, SE	G1/S1	FP
Phrynosoma blainvillii Coast horned lizard		G3G4/S3S4	SSC
Salvadora hexalepis virgultea Coast patch-nosed snake		G5T4/S2S3	SSC
Thamnophis hammondii Two-striped garter snake		G4/S3S4	SSC, USFS S
Thamnophis sirtalis ssp. South coast garter snake		G5T1T2/S1S2	SSC, USFS S
Xantusia riversiana Island night lizard	F Delisted	G3/S3	
Fish			
Catostomus santaanae Santa Ana sucker	FT	G1/S1	
Eucyclogobius newberryi Tidewater goby	FE	G3/S3	SSC
Gasterosteus aculeatus williamsoni Unarmored threespine stickleback	FE, SE	G5T1/S1	FP
Gila orcuttii Arroyo chub		G2/S2	SSC, USFS S
Oncorhynchus mykiss irideus	FE	G5T1Q/S1	

TABLE 8-7 SPECIAL-STATUS ANIMAL SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**Other**
Steelhead - southern California DPS			
Invertebrates			
Bombus crotchii Crotch bumble bee		G3G4/S1S2	
Branchinecta conservatio Conservancy fairy shrimp	FE	G2S2	
Branchinecta lynchi Vernal pool fairy shrimp	FT	G3/S3	
Ceratochrysis longimala Desert cuckoo wasp		G1/S1	
Cicindela hirticollis gravida Sandy beach tiger beetle		G5T2/S2	
Cicindela senilis frosti Senile tiger beetle		G2G3T1T3/S1	
Coelus globosus Globose dune beetle		G1G2/S1S2	
Danaus plexippus pop. 1 Monarch - California overwintering pop		G4T2T3/S2S3	USFS S
Euproserpinus euterpe Kern primrose sphinx moth	FT	G1G2/S1	
Helminthoglypta ayresiana sanctaecrucis Ayer's snail		G1G2T1T2/S1S2	
Helminthoglypta traskii traskii Trask shoulderband		G1G2T1/S1	
Micrarionta feralis San Nicolas Island snail		G1/S1	
Micrarionta opuntia Prickly pear island snail		G1/S1	
Minymischa ventura Ventura cuckoo wasp		GU/SU	
Panoquina errans Wandering (=saltmarsh) skipper		G4G5/S2	
Plebulina emigdionis San Emigdio blue butterfly		G1G2/S1S2	USFS S
Sterkia clementina San Clemente Island blunt-top snail		G1/S2	
Streptocephalus woottoni Riverside fairy shrimp	FE	G1G2/S1S2	
Trimerotropis occidentiloides Santa Monica grasshopper		G1G2/S1S2	
Tryonia imitatormimic *tryonia* (=California brackishwater snail)		G2/S2	
Birds			
Accipiter cooperii Cooper's hawk		G5/S4	WL
Agelaius tricolor	SCT	G2G3/S1S2	SSC

TABLE 8-7 SPECIAL-STATUS ANIMAL SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**Other**
Tricolored blackbird			
Aimophila ruficeps canescens southern California rufous-crowned sparrow		G5T3/S2S3	WL
Aquila chrysaetos Golden eagle		G5/S3	FP, WL
Artemisiospiza belli belli Bell's sage sparrow		G5T2T4/S2?	WL
Athene cunicularia Burrowing owl		G4/S3	SSC
Buteo regalis Ferruginous hawk		G4/S3S4	WL
Charadrius alexandrinus nivosus Western snowy plover	FT	G3T3/S2S3	SSC
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FT, SE	G5T2T3/S1	USFS S
Dendragapus fuliginosus howardi *Mount Pinos sooty grouse*		G5T2T3/S2S3	SSC
Elanus leucurus White-tailed kite		G5/S3S4	FP
Empidonax traillii extimus Southwestern willow flycatcher	FE, SE	G5T2/S1	
Eremophila alpestris actia California horned lark		G5T3Q/S3	WL
Falco mexicanus Prairie falcon		G5/S4	WL
Gymnogyps californianus California condor	FE, SE	G1/S1	FP
Icteria virens Yellow-breasted chat		G5/S3	SSC
Oceanodroma homochroa Ashy storm-petrel		G2/S2	SSC
Passerculus sandwichensis beldingi Belding's savannah sparrow	SE	G5T3/S3	
Pelecanus occidentalis californicus California brown pelican	Delisted	G4T3/S3	FP, USFS S
Phalacrocorax auritus Double-crested cormorant		G5/S4	WL
Polioptila californica californica Coastal California gnatcatcher	FT	G4G5T2Q/S2	SSC
Rallus longirostris levipes Light-footed clapper rail	FE, SE	G5T1T2	FP
Riparia riparia Bank swallow	ST	G5/S2	
Setophaga petechia Yellow warbler		G5/S3S4	SSC
Sternula antillarum browni	FE, SE	G4T2T3Q/S2	FP

TABLE 8-7 SPECIAL-STATUS ANIMAL SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**Other**
California least tern			
Vireo bellii pusillus Least Bell's vireo	FE, SE	G5T2/S2	
Mammals			
Ammospermophilus nelsoni Nelson's antelope squirrel	ST	G2/S2S3	
Antrozous pallidus Pallid bat		G5/S3	SSC, USFS S
Arctocephalus townsendi Guadalupe fur-seal	FT, ST	G1/S1	FP
Chaetodipus californicus femoralis Dulzura pocket mouse		G5T3/S3	SSC
Choeronycteris mexicana Mexican long-tongued bat		G4/S1	SSC
Corynorhinus townsendii Townsend's big-eared bat	SCT	G3G4/S2	SSC, USFS S
Enhydra lutris nereis Southern sea otter	FT	G4T2/S2	FP
Eumops perotis californicus Western mastiff bat		G5T4/S3S4	SSC
Lasiurus cinereus Hoary bat		G5/S4	
Macrotus californicus California leaf-nosed bat		G4/S3	SSC
Microtus californicus stephensi South coast marsh vole		G5T1T2/S1S2	SSC
Myotis ciliolabrum Western small-footed myotis bat		G5/S3	
Myotis thysanodes Fringed myotis bat		G4/S3	USFS S
Myotis volans Long-legged myotis bat		G5/S3	
Neotamias speciosus callipeplus Mt. Pinos lodgepole chipmunk		G4T1T2/S2	USFS S
Neotoma lepida intermedia San Diego desert woodrat		G5T3T4/S3S4	SSC
Perognathus alticolus inexpectatus Tehachapi pocket mouse		G1G2T1T2/S1S2	SSC, USFS S
Perognathus inornatus San Joaquin pocket mouse		G2G3/S2S3	
Peromyscus maniculatus anacapae Anacapa Island deer mouse		G5T1T2/S1S2	SSC
Sorex ornatus salicornicus Southern California saltmarsh shrew		G5T1?/S1	SSC
Taxidea taxus American badger		G5/S3	SSC

TABLE 8-7 SPECIAL-STATUS ANIMAL SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**Other**
Urocyon littoralis dickeyi San Nicolas Island fox	ST	G1T1/S1	

Status Key

Federal:

FE – Federal Endangered;
FT – Federal Threatened;
FC – Candidate for federal listing;
USFS S – US Forest Service Sensitive

State:

SE – State Endangered;
ST – State Threatened;
SCT – State Candidate Threatened;
FP – CDFW Fully Protected;
SSC – CDFW Species of Special Concern
WL – CDFW Watch List

Global NatureServe Rank:

G1: Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2: Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3: Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4: Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5: Secure – Common; widespread and abundant.
GH: All sites are historical; the species has not been observed for at least 20 years.
GX: All sites are extirpated; this species is extinct in the wild.
GXC: Extinct in the wild; exists in cultivation.
G1Q: The species is very rare, but there are taxonomic questions associated with it.
T-Rank refers to the status of only the subspecies.
GnGn: Range Rank - A numeric range rank (e.g., G2G3) is used to indicate any range of uncertainty about the status of the species or community.
?: Qualifier: Inexact or Uncertain - A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank.

State NatureServe Rank:

S1: Critically Imperiled - Critically imperiled because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2: Imperiled - Imperiled because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state.
S3: Vulnerable - Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4: Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5: Secure - Common, widespread, and abundant in the state.
SnSn: Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status

TABLE 8-7 SPECIAL-STATUS ANIMAL SPECIES			
Scientific Name and Common Name	**Federal/State Status**	**Global/State NatureServe Rank**	**Other**
of the species or community. ?: Qualifier: Inexact or Uncertain - A question mark represents a rank qualifier, denoting an inexact or uncertain numeric rank. SNR: Unranked - State conservation status not yet assessed. SU: Unrankable - Currently unrankable due to a lack of information or due to substantially conflicting information about status or trends. SH: Possibly Extirpated (Historical) - Species or community occurred historically in the state, and there is some possibility that it may be rediscovered. All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists. SX: Presumed Extirpated - Species or community is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.			

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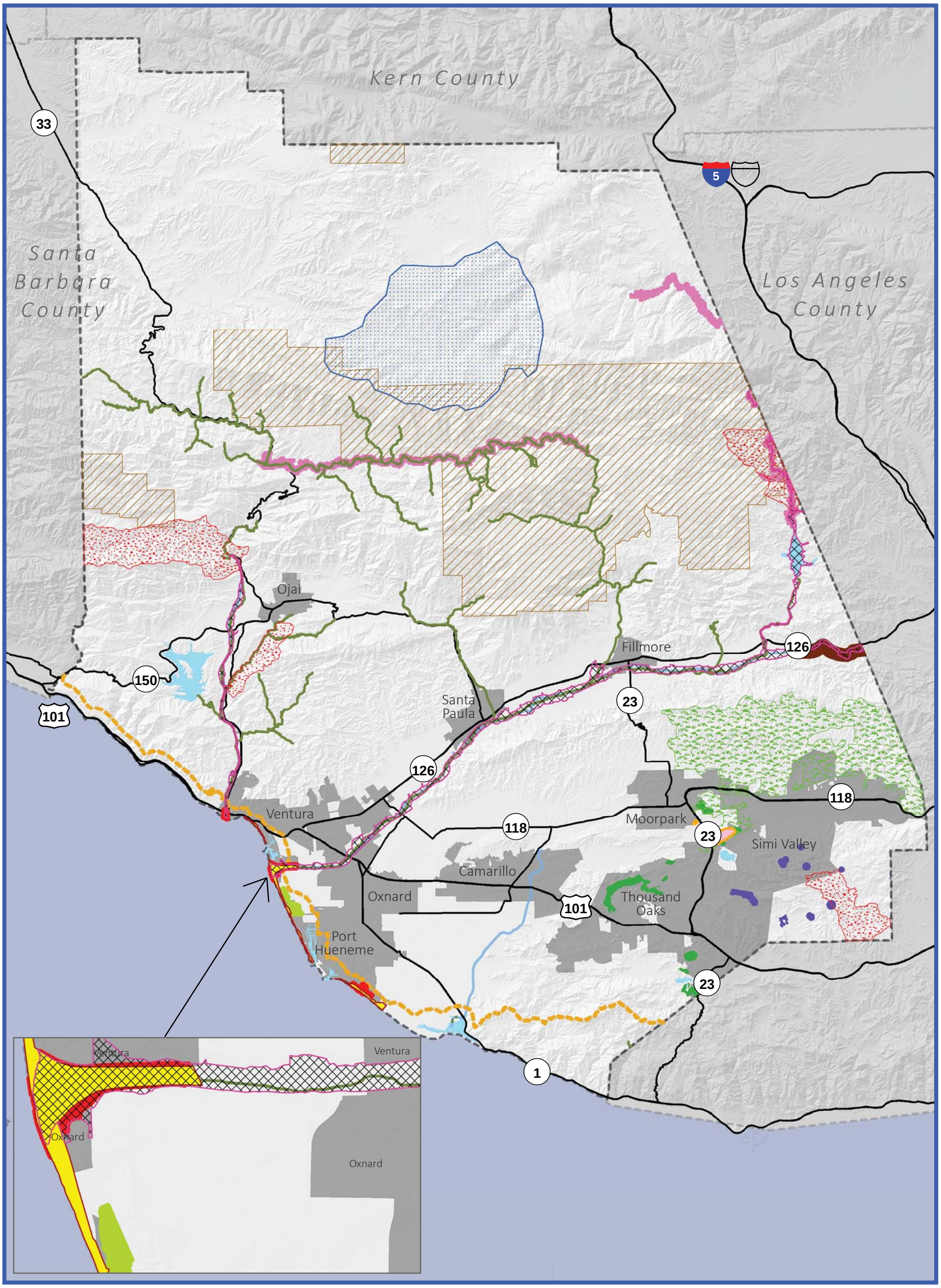


Ventura County 2040 General Plan

Figure 8-5
Critical Habitat

Map Date: July 20, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 5 10 Miles

N

USFWS Critical Habitat

- Braunton's milk-vetch
- CA condor
- CA red-legged frog
- Lyon's pentachaeta
- Riverside fairy shrimp
- S. CA steelhead
- Ventura marsh milk-vetch
- arroyo toad
- coastal CA gnatcatcher
- least Bell's vireo
- southwestern willow flycatcher
- tidewater goby
- vernal pool fairy shrimp
- western snowy plover

- Coastal Zone Boundary
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

FIGURE 8-5
CRITICAL HABITAT
BACK OF FIGURE

Habitat Connectivity/Wildlife Corridors

Habitat connectivity is defined as the degree to which the landscape facilitates or impedes movement of species among habitat areas. Movement is essential to the survival of biota because it allows seasonal migrations, access to resources, dispersal of offspring, genetic diversity, and allows for long-term changes in species' range in response to climate change. A high degree of connectivity among habitat types is also important for maintaining biodiversity and ecosystem functions. Loss of habitat connectivity or habitat fragmentation has occurred due to urban sprawl, roads, conversion of wildlands to intensive agricultural uses, installation of fencing that restricts or prevents wildlife movement, and other human and natural influences. Urbanization can result in the following effects on wildlife corridors:

- Decreased abundance and diversity of native species and replacement by non-native species.
- Removal and fragmentation of natural vegetation lowering habitat quality.
- Increased rates of roadkill and habitat fragmentation due to the development of a local road network.
- Spread of exotic plants through disturbance or introduction by humans that results in loss of biodiversity and habitat quality.
- Increase in perennial water which favors non-native aquatic organisms such as bullfrogs, and non-native terrestrial organism such as Argentinean ants which outcompete native species.
- Artificial night lighting which can impair the ability of nocturnal animals to navigate through a corridor.
- Increased noise, which disturbs or repels many animals and presents a barrier to movement.
- Disruption of the natural fire regime by either increasing the number of fires or suppressing fires that maintain natural ecosystem structure.

Habitat loss and fragmentation are the leading threats to biodiversity worldwide, including within Southern California. Biological diversity benefits both the natural and built environments in several ways. It benefits wildlife and plant species by fostering vigor and resiliency. In the built and agricultural environments, biological diversity provides a variety of pollinators to assure plants and crops persist, provides a variety of wildlife that includes predators that control population levels of high-producing wildlife such as rodents, and provides an interesting natural environment for human exploration.

Within Ventura County, several regional habitat connectivity corridors have been identified by South Coast Wildlands, as part of the South Coast Missing Linkages Project (SCMLP). [3] These corridors include: 1) connections between the Santa Monica Mountains to the Santa Susana and Sierra Madre

[3] http://www.scwildlands.org/

mountain ranges (**Santa Monica-Sierra Madre Connection)**; 2) connections between the Sierra Madre to the Castaic ranges (**Sierra Madre-Castaic Connection)**; and (3) linkages provided by the Ventura and Santa Clara Rivers (**River Linkages**). These regional habitat connectivity corridors identified in Ventura County are referred to as the "Habitat Connectivity Corridors."

These habitat connectivity corridors enable the migration and dispersal of wildlife and plant species, which are critical to the long-term survival of these species in an urbanizing environment. The linkages provide: (1) buffers to mitigate for "edge effects" where dissimilar habitats meet; (2) viable habitat for species needing multiple generations to achieve gene flow through the linkage; (3) needed resources (e.g, food, water, specific habitat, breeding partners, etc.); and (4) needed habitat to allow natural processes to operate and allow for species and natural communities to respond to climate change.

The Santa Monica-Sierra Madre Connection: Ventura County has one of the few major coastal to inland habitat connections remaining in the South Coast Ecoregion. The Santa Monica-Sierra Madre Connection within Ventura County includes natural habitats within the Los Padres National Forest, the Santa Monica Mountains National Recreation Area, state and regional parks, and open space preserves (which may have varying levels of protected status and access). It is comprised of a rich mosaic of oak woodland and savanna, chaparral, coastal sage scrub, annual grasslands, woodlands, and riparian corridors (Figure 8-4). These habitats accommodate diverse species, including mountain lion, bear, bobcat, coyote, mule deer, striped skunk, small mammals, amphibians, reptiles, and birds. The size of the Santa Monica-Sierra Madre Connection is 125,613 acres, which includes 43,249 acres of public lands that already protect natural habitats from development.

The Santa Monica-Sierra Madre Connection includes the Santa Clara River watershed (**Santa Clara River Linkage**), which, as stated above along with the Santa Clara River watershed and Calleguas Creek watershed, contains riparian corridors that provide a significant link between the coastal and inland habitats, and provide habitat for many special-status species (Figure 8-5). The Santa Monica-Sierra Madre Connection also includes three north-south linkages that connect the Santa Monica Mountains in the south to the Santa Susana and Topa Topa Mountains (both part of the Transverse Ranges) in the north and cross the Simi Hills and the Conejo Valley as well as the major cities of Thousand Oaks, Simi Valley, Camarillo, and Moorpark.

For most species, U.S. Highway 101 and State Routes (SR) 23, 118, and 126 are barriers between core habitats in the Santa Monica and Sierra Madre Mountains. The direct effects of highways include increased mortality (roadkill), habitat fragmentation, and reduced connectivity. Direct roadkill affects most species, with severe documented impacts on wide-ranging predators, such as mountain lion, in southern California. Highways also increase the spread of exotic plants, and create noise and vibration that affect the ability of species to communicate, detect prey, or avoid predators. Several existing structures facilitate various degrees of animal movement across these freeways. For example, Caltrans is working with the National Park Service to monitor wildlife movement at several culverts under SR-23, SR -118, and SR- 126. Caltrans has begun conducting improvements such as clearing tunnels and culverts and installing wildlife-proof fencing with escape gates to direct animals off the road and through underpasses on SR-23.

River Linkages: The Ventura and Santa Clara River corridors have been identified as important riparian and alluvial vegetation linkages from the Pacific coastal areas east to Los Padres Forest. These linkages intersect with the Sierra Madre-Santa Monica Connection near the City of Fillmore and Lake Piru (Santa Clara River Connection) and the Sierra Madre-Castaic Connection and Los Padres Forest. Like the

chokepoints associated with the Sierra Madre-Santa Monica Connections, these linkages are relatively narrow, but vital for many threatened and endangered wildlife species.

Sierra Madre-Castaic Connection: Ventura County also has a significant portion of the Sierra Madre-Castaic Connection that covers a large area in the Los Padres National Forest providing a large expanse of chaparral and woodland habitat, and includes Sespe Creek, a very important stream for fish and wildlife including the special-status arroyo toad, southern steelhead, and other special-status species.

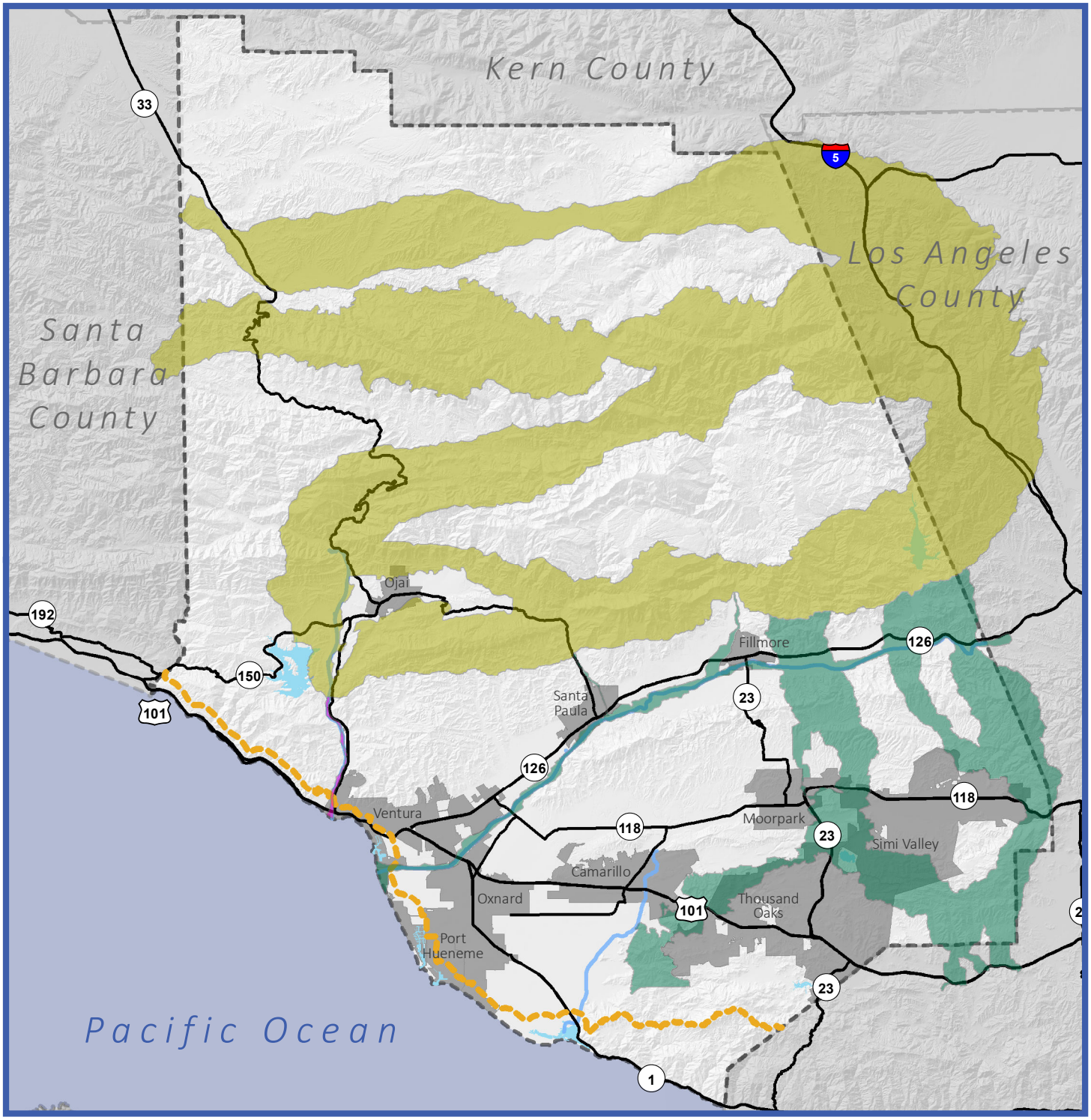
The corridor connections between Simi Valley and Thousand Oaks/Moorpark, between Thousand Oaks and Camarillo are more prone to disruption than the broader corridors across protected open space (which may have varying levels of protected status and access) such as the Los Padres National Forest. Disruption of narrow corridors such as these has potentially broad effects by preventing wildlife movement.

South Coast Wildlands developed the linkage designs based on input from a series of workshops at which 270 participants from 126 agencies, academic institutions, land managers, planners, conservation organizations, and community groups identified 109 focal species, including 26 plants, 25 insects, 4 fish, 5 amphibians, 12 reptiles, 20 birds and 17 mammals.

The mapped connectivity corridors described above have also been incorporated into the California Essential Habitat Connectivity Project, completed in 2010. The project, which included a comprehensive report, was completed for Caltrans and the California Department of Fish and Game. As explained in the report's Executive Summary, the project was commissioned, "…because a functional network of connected wildlands is essential to the continued support of California's diverse natural communities in the face of human development and climate change…"[4]

Ventura County recognizes that individual development projects have the potential to impact habitat connectivity and the County's Initial Study Assessment Guidelines include standards for assessing the impacts of discretionary projects on habitat connectivity. These are described in the Regulatory Setting section below. The County encourages development that enables wildlife migration through creation of preserves for areas containing significant habitat, clustering development to preserve larger intact areas, maintaining buffers between developed uses and natural habitat, and integrating design features to assist wildlife migration, such as wildlife overpasses and underpasses, well-designed and located culverts, and fencing that is permeable to wildlife, and use of nighttime lighting that is directed away from natural areas.

4 https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC



Ventura County 2040 GENERAL PLAN

Figure 8-6
Wildlife Corridors

Map Date: July 20, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 7.5 15 Miles

N

Regional Wildlife Corridors

- Ventura River
- Santa Monica - Sierra Madre
- Sierra Madre - Castaic

- Coastal Zone
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

Regulatory Setting

Biological resources in California are managed by a complex network of federal, state, and local regulations. The following discussion identifies federal, state, and local environmental regulations that serve to protect sensitive biological resources.

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plants and wildlife (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened by the USFWS and NMFS. The FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the USFWS and/or NMFS, (3) prohibitions against "taking" of listed species, and (4) provisions for permits that allow incidental "take". Specifically, Section 9 of the FESA prohibits the "taking" of federally listed wildlife. Taking is defined by the FESA as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct". For plants, this statute pertains to removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). Under section 7 of the FESA, federal agencies are required to consult with the USFWS and/or NMFS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion, the USFWS and/or NMFS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity provided the action will not jeopardize the continued existence of the species. Section 7 consultation would be triggered if a particular project within the county affects wetlands or waters of the U.S., requiring the U.S. Army Corps of Engineers (USACE) to issue a 404 permit. Section 10 of FESA provides for issuance of incidental take permits to private parties provided a Habitat Conservation Plan is developed.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 [U.S.C. 703 et seq.), 50 Code of Federal Regulations (CFR) Part 10, implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs and nests from a variety of activities such as hunting, pursuing, capturing, killing, selling and shipping, unless expressly authorized in the regulations or by permit. With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that cause nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA. As authorized by the MBTA, the USFWS issues some permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The state of California has incorporated the protection of birds in Sections 3800, 3513, 3503, and 3503.5 of the California Fish and Game Code (see below).

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) that was first passed in 1940 regulates take, possession, sale, purchase, barter, transport, import and export of any bald or golden eagle or their parts (e.g., nests, eggs, young) unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" was broadly defined to include shoot, wound, kill, capture, collect, molest, or disturb. In the 1972 amendments, penalties for violations were raised to a maximum fine of $250,000 for an individual or a maximum of two years in prison for a felony conviction, with a doubling of the penalties for organizations.

Federal Clean Water Act

The Clean Water Act's (CWA) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the U.S." without a permit from the USACE (33 U.S.C. 1344). The definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes and wetlands (33 CFR Part 328.3). Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (U.S. EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts on wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits.

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to also obtain a water quality certification from the state in which the discharge originates. The discharge is required to comply with the applicable water quality standards. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is issued by the State Water Resources Control Board and its nine Regional Water Quality Control Boards (RWQCBs). Required RWQCB certification would be under the jurisdiction of the Los Angeles RWQCB for southern portions of Ventura County and the Central Coast RWQCB for the northern portions of the county.

State

California Endangered Species Act

The California Endangered Species Act (CESA) of 1970 (California Code of Regulations [CCR] Title 14, Sections 670.2 and 670.51), as amended, is administered by the CDFW and generally parallels the main provisions of the FESA. Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this state." The NPPA is administered by the CDFW. The CDFW has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The CESA provides further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

Fully Protected Species and Species of Special Concern

The state of California first began to designate species as "Fully Protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, mammals, amphibians, reptiles, birds and mammals. Most fully protected species have since been listed as threatened or endangered under the CESA and/or FESA. The California Fish and Game Code sections (fish at Section 5515, amphibian and reptiles at Section 5050, birds at Section 3511, and mammals at Section 4700) dealing with fully protected species states that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species." Furthermore, the CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research. This language makes the fully protected species designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologist, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

California Fish and Game Code Section 1600-1603

Streams, lakes, and riparian vegetation, as habitat for fish and other wildlife species, are subject to jurisdiction by the CDFW under Sections 1600-1616 of the California Fish and Game Code. Any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake generally require a 1602 Lake and Streambed Alteration Agreement. Removal of riparian vegetation can also require a Section 1602 Lake and Streambed Alteration Agreement from the CDFW. The CDFW reviews the proposed actions and, if necessary, submits a proposal for measures to protect affected fish and wildlife resources to the applicant. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Lake and Streambed Alteration Agreement. Often, projects that require a Streambed Alteration Agreement also

require a permit from the USACE under Section 404 of the Clean Water Act. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne) imposes stringent controls on any discharges into the "waters of the state" (California Water Code § 13000, et seq.). Waters of the state are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code § 13050(e)). The State Water Resources Control Board protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the state are regulated by the RWQCBs under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the state, the RWQCBs have the option to regulate such activities under its state authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements. The Los Angeles RWQCB would have jurisdiction for southern portions of Ventura County and the Central Coast RWQCB would have jurisdiction for the northern portions of the county.

California Fish and Game Code Sections 3503, 3503.5, and 3800

According to Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrow (*Passer domesticus*), rock pigeon (*Columbia livia*), and European Starling (*Sturnus vulgaris*)). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MBTA, prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by the CDFW.

California Coastal Act

The California Coastal Act is administered by the California Coastal Commission. The California Coastal Act specifically calls for protection of “environmentally sensitive habitat areas (ESHA)”. ESHA is defined as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in the ecosystem and which could be easily disturbed or degraded by human activities and developments” (Section 30107.5). ESHA has been specifically identified in the Santa Monica Mountains in Ventura County.

Oak Woodland Conservation Act

The California Oak Woodlands Conservation Act was enacted in 2001. The Oak Woodlands Conservation Program constituted formal recognition on behalf of California lawmakers that oak woodlands are a vital statewide resource that provide benefits such as, crucial plant and wildlife habitat, reduced soil erosion, and enhanced water quality. The Oak Woodlands Conservation Act acknowledges that oak woodlands are being removed throughout California. In addition, to the legislative effort to protect oak woodlands provided by the Oak Woodlands Conservation Act, the state of California passed Senate Bill 1334 (Chapter 732, and Statutes of 2004) which required a modification to the Public

Resource Code regarding oak woodlands. As of January 2005, the Public Resource Code (Section 21083.4) required that when a county is determining the applicability of CEQA to a project, it must determine whether that project would result in a conversion of oak woodlands that would have a significant effect on the environment. If such effects (either individual impacts or cumulative) are identified, the law requires that they be mitigated. Acceptable mitigation measures include, but are not limited to, conservation of other oak woodlands through the use of conservation easements and planting replacement trees, which must be maintained for seven years. One notable exemption to this law is for the "conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes."

Local

2005 Ventura County General Plan

The General Plan covers biological resources in Chapter 1, Resources. Section 1.5 includes goals, policies, and programs related to biological resources. The following Area Plans also contain applicable goals and policies related to biological resources:

- Coastal Area Plan;
- El Rio/Del Norte Area Plan;
- Oak Park Area Plan;
- Ojai Valley Area Plan;
- Piru Area Plan;
- Saticoy Area Plan;
- Thousand Oaks Area Plan; and
- Lake Sherwood/Hidden Valley Area Plan.

Ventura County Oak Woodland Management Plan

In response to the California Oak Woodland Conservation Act of 2001, Ventura County prepared and adopted an Oak Woodland Management Plan that recommended, among other things, amending the County's Initial Study Assessment Guidelines to include an explicit reference to oak woodlands as part of its definition of locally important communities. The Ventura County Initial Study Assessment Guidelines defines a locally important community as one that is considered by qualified biologists to be a quality example characteristic of or unique to the county or region, with this determination being made on a case-by-case basis. The Ventura County Board of Supervisors approved this management plan and its recommendations.

The Ventura County Oak Woodland Management Plan includes the following goals to protect oak woodlands:

- Encouraging private landowners and conservation organizations to protect oak woodlands,
- Ensuring consistent consideration of oak woodlands during discretionary permit review,

- Considering appropriate amendments to Ventura County's regulatory plans and ordinances, as funding permits, and
- Supporting countywide biological data collection, analysis, and mapping.

Ventura County Land Conservation Act Guidelines

The California Land Conservation Act (also known as the Williamson Act) was adopted by the California State Legislature in 1965. In 1969, the County Board of Supervisors adopted "Guidelines for Implementation of the Land Conservation Act of 1965/the Williamson Act" (the LCA Guidelines). These Guidelines and subsequent revisions established criteria for eligibility for Agricultural Preserves (AGPs) and Land Conservation Act (LCA) Contracts in the unincorporated areas of the county. All land with a land use designation of Agricultural within the County of Ventura General Plan is considered an AGP.

Ventura County has three contract types, Land Conservation Contract (LCA), the Farmland Security Zone Area Contract (FSZA/LCA), and the Open Space (Wildlife Habitat) Contract (OS/LCA). The goal of LCA and FSZA/LCA contracts is to preserve agricultural land, and discourage its premature conversion to non-agricultural uses. The goal of OS/LCA contracts is to protect and enhance wildlife resources. To qualify for an OS/LCA contract the subject property must be located within an AGP as well as a designated Wildlife Habitat Area (WHA), which is defined in the LCA Guidelines as "an area of great importance for the protection or enhancement of the wildlife resources of the state. (Government Code Section 51201(j))." The criteria from the County Initial Study Assessment Guidelines for Significant Biological Resources is used to determine if a subject property qualifies for the WHA designation. In exchange for agreeing to restrict the use of the property by entering into a Contract, participating property owners receive a reduction of property taxes which is generally limited to the agricultural value of the property. This reduction of property taxes remains until the property owner or the County files for a Non-Renewal or terminates the contract. Subject properties eligible for either of the contract types must be designated Agriculture or Open Space under the County General Plan or Coastal Program.

As of 2017, Ventura County had 1,074 LCA contracts totaling 127,820 acres. This total includes three Wildlife Habitat Area contracts totaling approximately 340 acres.

2011 Initial Study Assessment Guidelines

The Initial Study Assessment Guidelines include criteria for evaluating environmental impacts for biological resources. These can be found in Section 24. Biological Resources.

2015 Ventura County Non-Coastal Zoning Ordinance

The Non-Coastal Zoning Ordinance regulates biological resources, including Article 7, Section 8107-25 Tree Protection Regulations.

Key Terms

Biodiversity Hotspot. A biodiversity hotspot is a biogeographic region that is both a significant reservoir of biodiversity and is threatened with destruction. The term biodiversity hotspot specifically refers to 25 biologically rich areas around the world that have lost at least 70 percent of their original habitat.

California Endangered Species Act **(CESA).** The state endangered species act protects plants and wildlife listed as endangered, threatened, or as candidates for listing. The act is administered by the California Department of Fish and Wildlife.

California Natural Diversity Database (CNDDB). The CNDDB is a program that inventories the status and locations of rare plants and animals in California. The CNDDB is used frequently in planning projects to determine if special status species occur within a particular project area. Using information from CNDDB queries is often the first step in determining whether or not a project or plan may impact habitat for a certain species.

Critical Habitat. Critical habitat is a term defined and used in the Endangered Species Act. It is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery.

Environmentally Sensitive Habitat Area (ESHA). Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development.

Federal Endangered Species Act (FESA). The federal endangered species act protects plants and wildlife that are listed as endangered or threatened by the federal government. The act is administered by the U.S. Fish and Wildlife Service (USFWS) for terrestrial and aquatic/terrestrial species and by the National Marine Fisheries Service (NMFS) for fish and marine mammal species.

Habitat Connectivity. The degree to which the landscape facilitates or impedes movement of wildlife among habitat patches.

Information for Planning and Research (IPaC). IPaC is a project planning tool developed by the USFWS which streamlines the USFWS environmental review process. IPaC Trust Resource Reports list federally-listed species, Critical Habitat, migratory birds, wildlife refuges and fish hatcheries, and wetlands in the National Wetland Inventory.

Least Cost Union. Best potential movement route for all focal species within the South Coast Missing Linkage Project.

Santa Monica-Sierra Madre Connection. The Santa Monica-Sierra Madre Connection within Ventura County includes natural habitats linking the Los Padres National Forest, Santa Monica Mountains National Recreation Area, state and regional parks, and open space preserves(which may have varying levels of protected status and access), and provides a significant link between the coast and inland habitats.

South Coast Missing Linkage Project (SCMLP). The South Coast Missing Linkages Project (SCMLP) is a collaborative effort among scientists, state and federal agencies, academic institutions, land managers, conservation organizations, and community groups that has developed a comprehensive regional network of habitat linkages between existing reserves.

South Coast Ecoregion. The South Coast Ecoregion is identified in the SCLMP as an area extending from the Tehachapi Mountains and the San Bernardino Mountains in the north to Baja California in the south and the Sonoran and Mojave Deserts in the east.

Special-status species. Plant and animal species that are listed by federal, state, local governments, or recognized on organization lists (such as the California Native Plant Society or Audubon Society) and sufficiently rare that they require special consideration and/or protection. All special-status species are considered under CEQA; impacts to state/federally listed species require permits from state/federal agencies.

Vegetation community. A group of plant species that occupy the same area at the same time, and are associated with a particular group of animal species.

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SECTION 8.3 SCENIC RESOURCES

Introduction

This section describes the existing conditions and regulatory framework related to scenic resources in the County of Ventura. Aesthetic surroundings are an important determinant in quality-of-life considerations. Evaluating aesthetic resources in a planning context is influenced by their scenic beauty elements, the distances from which they can be seen, and the sensitivity of the observer (BLM Visual Resource Handbook 1986). From the coastline to the forested mountains of the north, the county contains aesthetic features that continue to attract visitors and provide pleasure to residents. Conservation of these resources, and visual access to them, is a goal of the County. Conservation of aesthetic resources is most critical where they will be frequently viewed, such as in proximity to a highway or a residential area. From panoramic views of the Santa Monica Mountains in the south to northern vistas of the Topa mountain range in the Los Padres National Forest and scenic views of coastal beaches and cliffs in the west, Ventura County offers a variety aesthetic resources.

Major Findings

- The diversity of scenic resources is reflected in the four physiographic provinces that occur in the county, which include: Coastal Plain and Valleys, the Western Transverse Ranges, the Cuyama Badlands, and the Channel Islands.
- 54 percent of the county's lands are comprised of protected local, state, or federal open space areas (which may have varying levels of protected status and access).
- 62 percent of the county's roads are county eligible scenic highways, which require specific protection measures to maintain visual quality within each highway's scenic corridor.
- The majority of the eligible county and eligible and designated state scenic highways are located in the southern half of the county.
- The Ojai Area Plan includes the most designated Scenic Resource Areas, and the Piru Area Plan includes the second highest amount of scenic resource areas.
- The Ojai Area Plan has the most protective goals, policies, and programs among the County's area plans.

- Four of the County's eight (non-coastal) Area Plans include designated Scenic Resource Areas.

Existing Conditions

General Conditions

The aesthetic character of Ventura County includes many scenic areas and natural features that are recognized as unique aesthetic resources. Most of these are found in the varied topography, exposed rock formations, unique coastline, beaches, variety of vegetation communities, and lakes and rivers of the county. The physiographic (e.g., landform, relief, associated vegetation, water bodies) features of the county have a strong influence on the aesthetic features of the natural landscape. The county ranges in elevation from sea level on the southwest to 2,692 meters (8,831 feet) above sea level at its northern border on Mount Pinos, and is comprised of five physiographic regions, briefly described below. More than half (54 percent) of the county's lands are in some form of protected open space from either county, state park, or federal entities (which may have varying levels of protected status and access).

For purposes of evaluating potential impacts to scenic resources within the unincorporated areas, the county considers the aesthetic qualities associated with lakes, beaches, dunes, rivers, creeks, bluffs, mountains, ridgelines, hillsides, native habitat (e.g., wetlands, oak woodlands, and coastal sage chaparral habitat), and rock outcroppings. Furthermore, the scenic resource must be visible from a public viewing location as incorporated by the Scenic Resource Protection Overlay Zone of the Non-Coastal Zoning Ordinance. (ISAGs, 2011).

Coastal Plain and Valleys

The coastal plain and valleys physiographic region is a broad, flat distributary delta that has been extensively modified by agricultural and urban development for over 200 years. This region includes the Oxnard Plain, lower Ventura River Valley, Rincon Coast, and the Santa Clara River Valley. Long-range views of this region can be seen from Highway 126.

Western Transverse Ranges

This region includes the western portion of the Santa Monica Mountains, Santa Susana Mountains, and Simi Hills. These mountains are rugged and have high relief, ranging from sea level along their southern edge to 948 m (3,111 ft.) on Sandstone Peak, immediately south of Boney Mountain, both located within Ventura County. Sandstone Peak can be viewed from both Highway 1 and U.S. 101.

Cuyama Badlands

The Cuyama Badlands is a high desert region in northwestern Ventura County. The topography is rugged with steep eroding cliffs on which few plants grow, hence the name "badlands". The non-marine sedimentary strata are quite colorful, with the banding of the sedimentary rock layers providing strikingly stark and colorful natural displays, ranging from buff to red to blue and green. Views of the Cuyama Badland features can be seen from Highway 166, which is located outside of Ventura County to the northwest.

Channel Islands

Two of California's eight Channel Islands occur within Ventura County: Anacapa Island and San Nicolas Island. Anacapa Island is made up of three connected landmasses, which are referred to as West Anacapa (the tallest, largest, and most rugged of the three), Middle Anacapa (long and narrow with a generally flat mesa top), and East Anacapa (which is similar to Middle Anacapa). East Anacapa has a lighthouse and campground at its eastern end, near Arch Rock, a characteristic landmark. Anacapa Island is the easternmost of a chain of islands forming the northern Channel Islands, and occurs east of the largest of the four islands, Santa Cruz Island. The islands can be viewed from multiple locations along Highway 1.

Scenic Resource Areas

To protect some of the county's most distinctive aesthetic resources, the Area Plans for Lake Sherwood, Oak Park, the Ojai Valley, and Piru recognize the mountain ridgelines in these areas as worthy of conservation. Likewise, the viewsheds of Lake Sherwood, Lake Piru, Lake Casitas, and Lake Matilija have all been designated as Scenic Resource Areas. These viewsheds include the areas around the lake and extend to the highest ridgeline surrounding each of the lakes. Figure 8-7 depicts the Scenic Resource Protection Overlay Zone in Ventura County, which includes the visual resources in the Ojai and Thousand Oaks areas and around the prominent lakes.

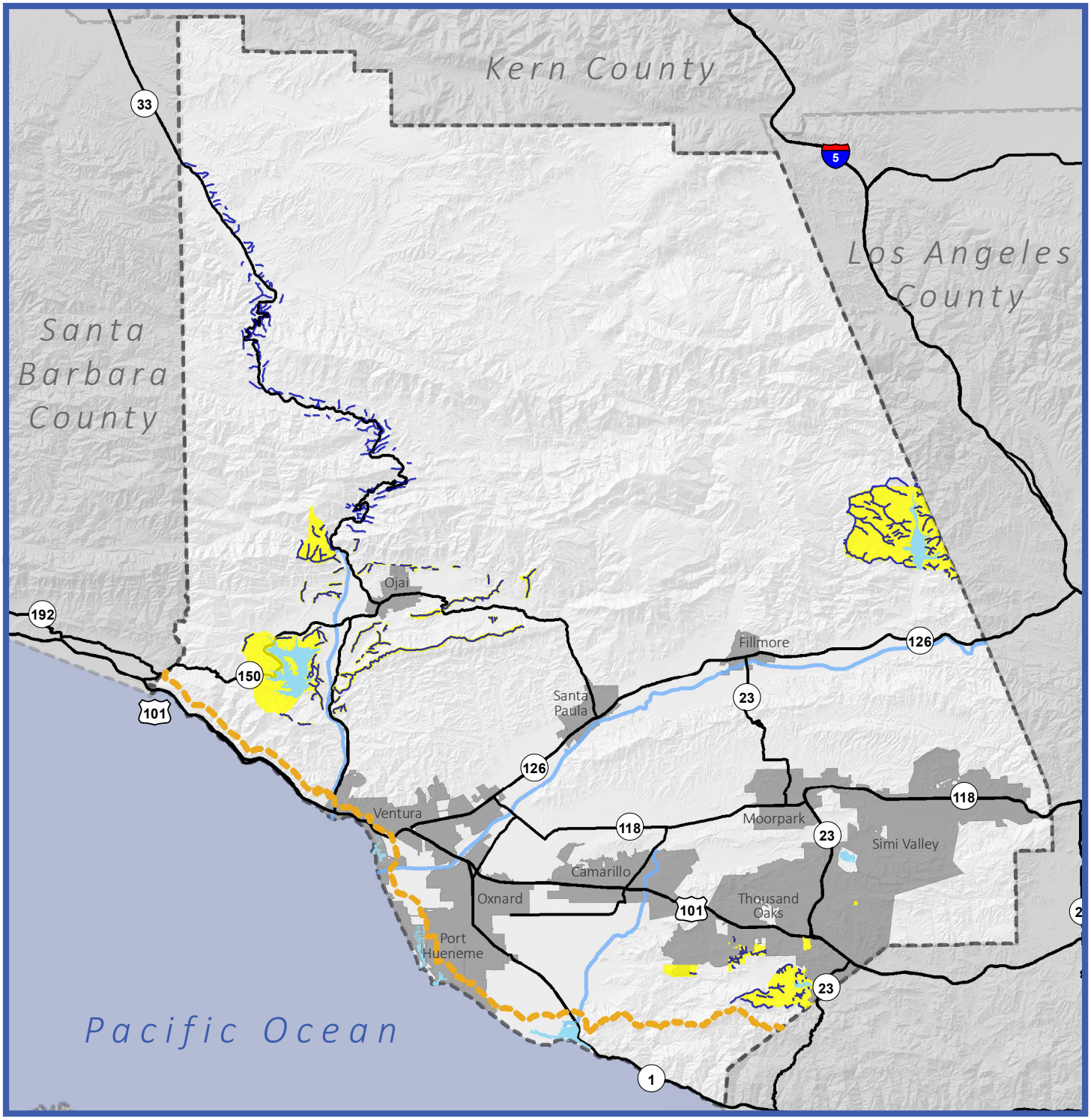
The criteria used to determine which areas are worthy of special consideration and regulation are set forth in the Scenic Resource Area Criteria Matrix (Ventura County General Plan Resources Appendix), and include the following:

- Viewable or accessible from a road
- Absence of major residential development
- Accessible for recreational use
- Percentage of land with steep slopes
- Watershed areas
- Dense vegetation cover (all types)
- Stands of trees
- Abundance of wildlife
- Open space designation
- Percentage of land in National Forest or other government ownership

Those areas which meet the criteria are known as Special Resource Areas and are depicted in Figure 8-7. Scenic Resource Areas consist of certain lakes and their viewsheds, and state and county designated scenic highway corridors.

Lakes

The areas surrounding lakes often exhibit a variety of vegetation, and contain sensitive habitats where many oaks, alders, maple trees and many other native plants grow. Lakes are usually surrounded by steep slopes, which make them sensitive to the forces of nature if greatly disturbed by wildfire, severe weather, or earthquakes. Lakes are also thought of as central foci for people who enjoy these areas as recreational and educational areas. Based on the criteria referenced above, four lakes in Ventura County were determined to be worthy of special protection as a Scenic Resource Area. The four lakes are Lake Casitas, Lake Matilija, Lake Piru and Lake Sherwood. The Scenic Resource Area of these four lakes includes the area encompassing the lakes and the viewshed extending from the lakes to the highest ridgeline surrounding the lakes, excluding land designated as Existing Community.



Ventura County 2040 GENERAL PLAN

Figure 8-7
Scenic Resource Areas

Map Date: July 19, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 7.5 15 Miles

N

- Water
- Ridgelines Within Scenic Resource Protection Overlay Zones
- Scenic Area
- Coastal Zone
- Major
- Major
- Cities

Scenic Highways

There are many state and county highways eligible for official designation as "scenic" through the State of California Transportation Department (Caltrans) California Scenic Highway Program (see Figure 8-8). Examples of State eligible routes include Highway 126, located in the southern part of the county, and Highway 33, located in the northern half of the county. Highway 33 (Jacinto Reyes Scenic Byway) is in the Los Padres National Forest and was designated scenic by Caltrans in 1988. Portions of the highway had been previously designated scenic in 1972. The scenic designation applies to 40 miles of Highway 33 that wind through the coastal mountain range at Pine Mountain Summit, from 6.4 miles north of State Highway 150 to the Santa Barbara County line. The scenic vistas visible from this route include pine forests, semi-desert vegetation, and views of the Cuyama and Lockwood Valleys. In the southern half of the county, the sections of Highway 1 and U.S. 101 along the coast are state eligible and offer outstanding views of the Pacific Ocean, as well as the foothills and mountainous areas on the east side of these highways.

Eligible scenic highways in the southern portion of the county include Santa Ana Road and Creek Road, which occurs on the west and east sides of Highway 33, respectively. The southern portion of the County contains numerous eligible scenic highways; some of them include: Highway 23, Highway 118, and Highway 101.

Area Plan Scenic Resources

In addition to viewsheds of lakes and scenic highways designated as Scenic Resources Areas as discussed above, there are Scenic Resource Areas that are identified in some area plans. The criteria used to determine these scenic resources and the policies governing development vary from area to area.

Piru Area Plan

The Piru Area Plan includes the area in the northeastern corner of the county. State Highway 126, Main Street and Center Street, Piru Canyon Road, Guiberson Road, and Torrey Road, are designated as Local Scenic Roads. Discretionary projects located within the viewshed of a Local Scenic Road are required to comply with development standards related to scenic roadways as set forth in the Area Plan. The viewshed to the highest ridgeline surrounding Lake Piru is designated as a Scenic Resource Protection Zone. The area immediately surrounding Lake Piru includes steep slopes with a variety of vegetation, and geologic features. Piru Canyon Road follows and offers views of Piru Creek, which flows southwest from the Lake and flows along the east side of the community of Piru. The community of Piru is located in a valley, from which views of ridgelines can be seen to the north and south.

Thousand Oaks Area Plan

The area covered by the Thousand Oaks Area Plan is located west of the Oak Park Plan area, and North of the Santa Monica Mountains. It contains multiple local scenic highways and one highway (U.S. 101) that is an "Eligible County Scenic Highway" under the State Scenic Highways Program.

Lake Sherwood/Hidden Valley Area Plan

The Lake Sherwood/Hidden Valley Area Plan is located south of the City of Thousand Oaks and is bounded on the east by the Los Angeles County borderline. It includes views of the area surrounding Lake Sherwood and the Santa Monica Mountains.

Ojai Valley Area Plan

The lands included in the Ojai Valley Area Plan are located in the western part of the county, bordering Santa Barbara County on the west. This Area Plan includes a Scenic Overlay Protection Zone, and the ridgelines to the north of Ojai are considered part of the Scenic Resource Protection areas identified in the County's General Plan. Lake Casitas is included in the Protection Zone and can be seen from Highways 33 and 150.

Other Scenic Resources by Area Plans

The Saticoy, Coastal, North Ventura Avenue, El Rio/Del Norte and Oak Park Area Plans have no Scenic Resource Areas designated within their Planning Area boundaries. However, they all contain references and policies related to the protection of scenic resources.

Regulatory Setting

Scenic resources in the county are managed by a complex network of state and local regulations. At the state level, scenic resource protection is regulated by the State Scenic Highways Program, for highway corridors that are eligible or classified as scenic resources. Along the coast, scenic resources are regulated by the Coastal Act and the Local Coastal Plan. At the local level, management of scenic resources is regulated by the County's General Plan and, where applicable, County Area Plans.

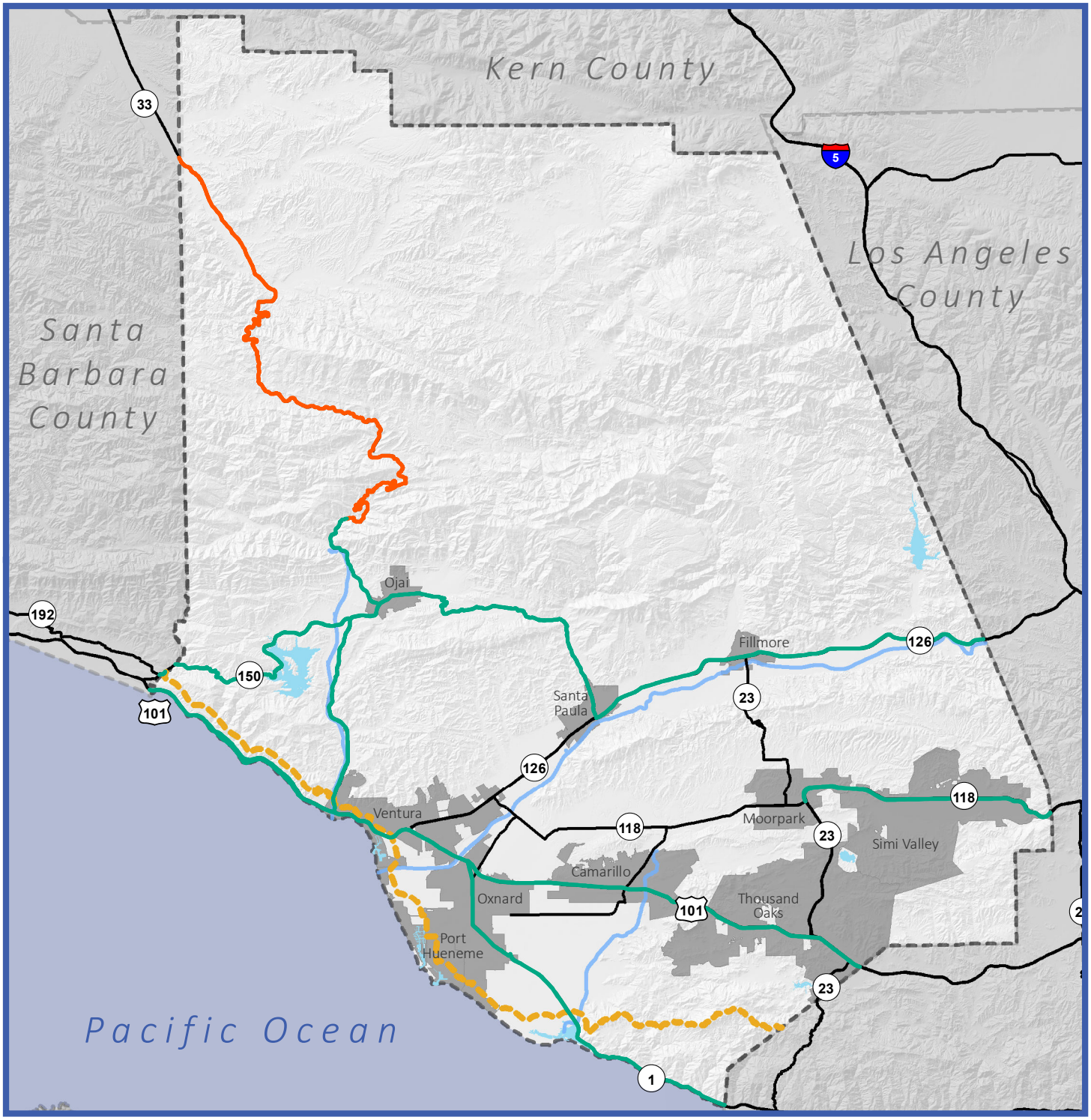
State

State Scenic Highways Program

The State has adopted legislation (Division 1, Chapter 2, Article 2.5 of the Streets and Highways Code) governing the application of the designation "State Scenic Highway." In order to receive that designation, the local jurisdiction must follow the process described below. County Scenic Highways can achieve State recognition by following the same process, save for appearing on the Master Plan of State Highways Eligible for Official Scenic Highway Designation. This program is administered by the California Department of Transportation (Caltrans).

The criteria below were used in selecting the prospective scenic highway routes depicted on the Scenic State Highway Map (Figure 8-8).

- The highway transects areas of extraordinary scenic value,
- The highway offers typical views that represent the variation in scenic factors available within the jurisdiction.
- If possible, all principal landscape and topographical type areas should be represented in the system.
- Routes of historic significance which connect places of interest should be considered even though the route is of marginal scenic value.
- The number of times a route has been suggested as a scenic highway in other plans and studies.
- The degree to which a route can be integrated into a system of "loops" or continuous scenic drives.



Ventura County 2040 GENERAL PLAN

Figure 8-8
Scenic State Highways

Map Date: July 19, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 7.5 15 Miles

N

Scenic Highway Status

- Official State
- Eligible State

- Coastal Zone
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

- Whether a route connects the scenic highway systems of adjoining jurisdictions.
- The general attractiveness of the route, including the variety and diversity of its viewscape.
- The extent to which the route supports other General Plan elements or plans, such as the open space, conservation, recreation, circulation, bicycle, and parks plans.

Figure 8-8 depicts the county's eligible and designated scenic highways. The State Scenic Highways, both "Designated" and "Eligible," are as depicted on the Master Plan of State Highways Eligible for Official Scenic Highway Designation.

Coastal Act

§ 30251. "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of the surrounding area and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the [State] Department of Parks and Recreation and by local government shall be subordinate to the character of its setting."

§ 30254. "New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state or nation, public recreation, commercial recreation and visitor-serving land uses shall not be precluded by other development."

Local

2005 Ventura County General Plan

The General Plan covers scenic resources in Chapter 1, Resources. Section 1.7 includes goals, policies, and programs related to scenic resources. The following Area Plans also contain applicable goals and policies related to scenic resources:

- Coastal Area Plan;
- El Rio/Del Norte Area Plan;
- North Ventura Avenue Area Plan;
- Oak Park Area Plan;
- Ojai Valley Area Plan;
- Piru Area Plan;
- Saticoy Area Plan;
- Thousand Oaks Area Plan; and
- Lake Sherwood/Hidden Valley Area Plan.

2011 Initial Study Assessment Guidelines

The Initial Study Assessment Guidelines include criteria for evaluating environmental impacts for scenic resources. These can be found in Section 6. Scenic Resources.

2016 Coastal Zoning Ordinance

The Coastal Zoning Ordinance contains multiple provisions that require a coastal development permit, as well as a development plan for develop that occurs in highly scenic areas.

2015 Ventura County Non-Coastal Zoning Ordinance

The Non-Coastal Zoning Ordinance regulates scenic resources through Section 8109-4.1 Scenic Resource Overlay Protection Zone

Local Scenic Highway Protection Program

The procedure for achieving official designation of scenic highways includes the requirement that the local jurisdiction(s) prepare and adopt a program to protect and enhance the appearance of the scenic corridor. The elements of that program are described as follows:

- Regulation of land use and density of development.
- Detailed land and site planning.
- Control of outdoor advertising.
- Careful attention to and control of earthmoving and landscaping.
- County design review for the design and appearance of structures and equipment.
- The above referenced protection measures, which are to be in the form of ordinances or included in the general or specific plans, shall apply to the area of land within the scenic corridor boundaries and route limits.
- These ordinances can be new or existing, but must meet the five criteria in Section 261 of Streets and Highways Code as listed above.

Scenic Resource Areas

The area within ½ mile of an adopted County or State Scenic Highway that is designated Open Space, Agricultural or Rural on the Land Use Map of the Goals, Policies and Programs, or the parcels that are contiguous to an adopted County or State Scenic Highway that are designated Urban, Existing Community, or State and Federal Facilities on the Land Use Map of the Goals, Policies and Programs, are deemed Scenic Resource Areas and are depicted on the Scenic Resource Areas Map (Figure 8-7). Scenic Resource Areas are subject to the provisions and standards of the Scenic Resource Overlay Zone set forth in the Non-Coastal Zoning Ordinance.

Scenic Resources Areas are subject to the Scenic Resource Overlay Zone of the Non-Coastal Zoning Ordinance, which is designed to preserve, protect and enhance the county's scenic resources through the regulation of discretionary development that may adversely affect these resources. The provisions of the

overlay zone apply to Scenic Resource Areas depicted on the Resource Protection Map (Figure 8-7) of the Resources Chapter of the General Plan Goals, Policies and Programs, or Scenic Resource Areas identified in an Area Plan.

Key Terms

Barranca. A deep gully or arroyo with steep sides.

County Eligible Scenic Highway. The scenic corridor through which the highway passes has consistent scenic, historic or aesthetic value during all seasons based on evaluation criteria established by Caltrans.

Local Scenic Road. As designated within the Piru Area Plan, roads with this designation shall be reviewed for compliance with specific criteria of Policy 1.3.2.4 of the Piru Area Plan.

Physiographic region. A geographic region in which climate and geology have given rise to an array of landforms different from those of surrounding regions. Those landforms influence the amount of visual quality inherent in a natural landscape**.**

Scenic Corridor. Lands adjacent to eligible or designated county or state scenic highways that are within view of the subject road.

Scenic Resource Areas. Areas that are designated to protect distinctive scenic resources in the county, and are based on established criteria in the current Ventura County General Plan Resource Appendix.

State Eligible/Designated Scenic Highways. Scenic highways are established to protect and enhance the natural scenic beauty of California state highways and adjacent corridors, through special conservation treatment. To be eligible state highways must be nominated and subjected to an evaluation process. Highways that meet those criteria are officially designated after a local government adopts a scenic highway corridor protection program.

Viewshed. The total landscape seen, or potentially seen from a logical part of a travel route, use area, or waterbody.

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SECTION 8.4 MINERAL RESOURCES

Introduction

This section summarizes known and potential mineral and petroleum resources in Ventura County.

Major Findings

- The per-capita demand for aggregate in the Ventura County Production Consumption Region is approximately 6 tons per year and similar to the Statewide average.
- The 50-year (2011-2050) demand for aggregate in Ventura County Production Consumption Region is estimated to be 298 million tons.
- The permitted aggregate reserves in the Ventura County Production Consumption Region are currently 168 million tons (56% of the 50-year demand).
- In 2015, Ventura County produced 8,101,140 barrels of oil.
- In 2015, Ventura County produced 8,064,384 thousand cubic feet of natural gas.
- In 2015, Ventura County ranks third in State petroleum production.

Existing Conditions

Mineral Resources

Minerals are defined as a naturally occurring, inorganic elements (single or compound) that serve as the elementary units (ingredients) for rocks. Ore is the naturally occurring material from which mineral or minerals of economic value can be extracted. Mineral resources in Ventura County consist of aggregate resources, more commonly known as construction grade sand and gravel. The county also contains petroleum resources in the form of oil and gas deposits (discussed below). There are other mineral resources extracted in Ventura County, but they are not designated as significant by the state nor do they play a major role in the county's economy.

The State Geologist investigates and identifies lands in California underlain by mineral resources. Some of these lands are referred to the State Mining and Geology Board (SMGB) for designation as a Mineral Resource Zone (MRZ) based upon the known or inferred presence of mineral resources. . The following MRZ categories are used by the State Geologist in classifying the state's lands. The geologic and economic data and the arguments upon which each unit MRZ assignment is based are presented in the mineral land classification report transmitted by the State Geologist to the SMGB.

- MRZ-1: Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas underlain by mineral deposits where geologic data show that significant measured or indicated resources are present (2a) or where such resources are inferred (2b).
- MRZ-3: Areas containing known mineral deposits that may qualify as mineral resources (3a) or areas containing inferred mineral deposits that may qualify as mineral resources (3b). Further

exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category.

- MRZ-4: Areas where geologic information does not rule out either the presence or absence of mineral resources. The distinction between the MRZ-1 and MRZ-4 categories is important for land-use considerations. It must be emphasized that MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding mineral occurrence. Further exploration work could well result in the reclassification of land in MRZ-4 areas to MRZ-3 or MRZ-2 categories.

Figure 8-9 delineates the MRZ lands designated in Ventura County.

Priority is given to construction-related materials and in particular those minerals used in making Portland Cement Concrete (PCC). The reason for this is the role that construction grade aggregate (sand, gravel, and crushed rock) plays in the economy, particularly the building and paving industries. PCC grade aggregate is emphasized because of its demand and scarcity.

Aggregates (sand and gravel) and petroleum (oil and gas) are the primary geological resources in Ventura County. Asphalt, clay, expansive clay, gypsum, limestone and phosphate are other resources with commercial value, but do not contribute significantly to the physical development or economy of the county. The State classifies aggregate mineral resources into Production Consumption (P-C) Regions Ventura County constitutes a single P-C Region.

The Oak Ridge Hills extend westward from the Los Angeles County line from Simi Valley to the area between the cities of Moorpark and Fillmore. Several areas along this trend have been designated as MRZ-2 lands by the SMGB. Aggregate is extracted from the ancient streambed deposits that crop out in theses hills at several existing mining facilities. These mining facilities are the primary source of aggregate in Ventura County.

The County has determined that lands classified MRZ-2 (or otherwise designated as areas of statewide or regional significance for mineral resources) should be protected from incompatible land uses that would inhibit extraction of or access to the available mineral resources. The MRZ-2 lands are identified in the County Non-Coastal Zoning Ordinance with a Mineral Resource Protection (MRP) Overlay.

In 2013, total California production of construction aggregate (sand and gravel and crushed stone) was 132.0 million tons, valued at $1.24 billion. The two top-producing minerals were construction grade sand and gravel and Portland cement. The per-capita demand for aggregate in the Ventura County P-C Region is approximately 6 tons per year and similar to the statewide average. The 50-year (2011-2050) demand for aggregate in the Ventura County P-C Region is estimated to be 298 million tons. The permitted aggregate reserves in the Ventura County P-C Region are currently 168 million tons (56% of the 50-year demand).

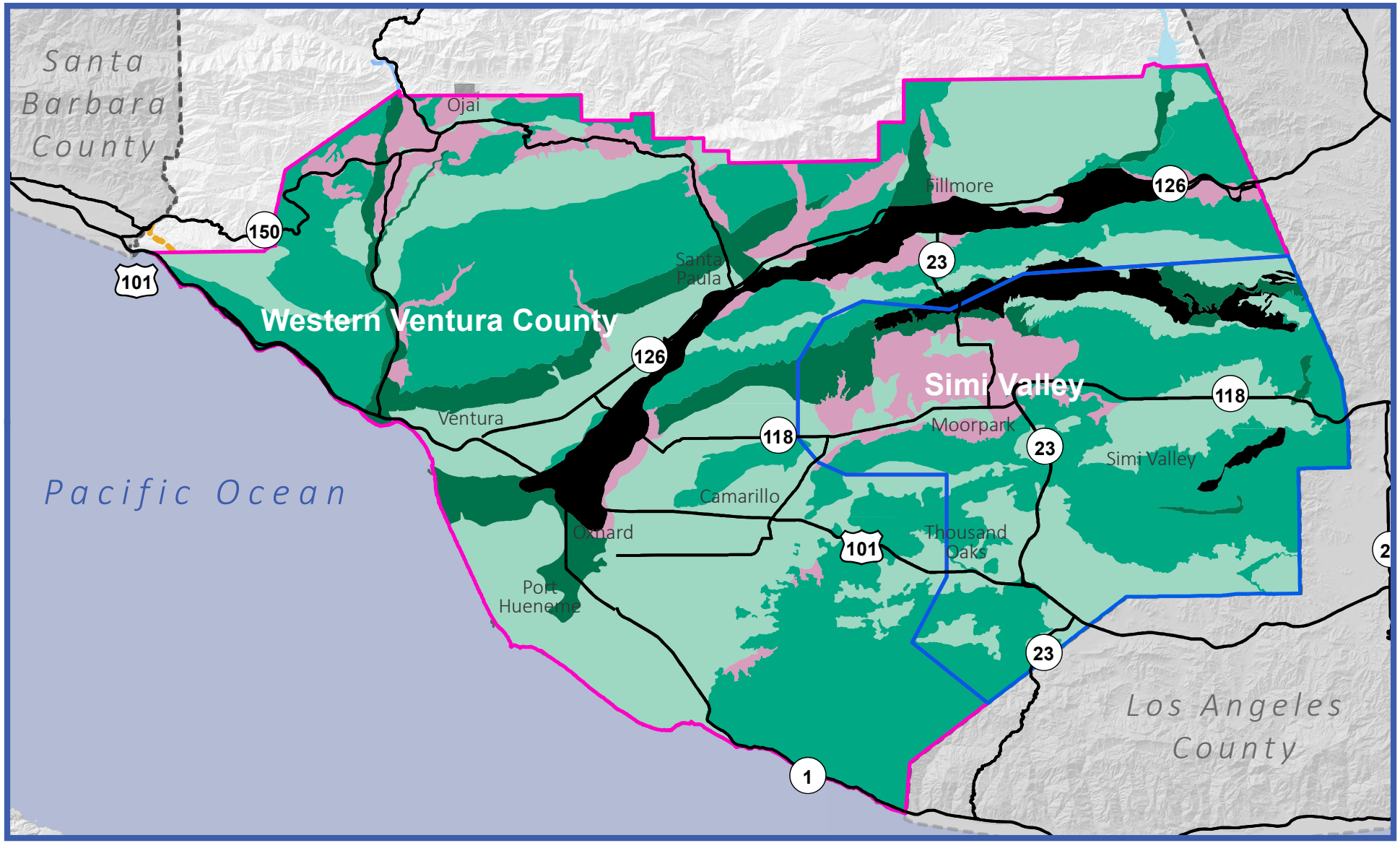


Figure 8-9
Mineral Resource Zones

Map Date: July 19, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 5 10 Miles

N

Production Consumption Regions

- Simi Valley
- Western Ventura County

Aggregate Resource

- MRZ - 1
- MRZ - 2
- MRZ - 3
- MRZ - 3a
- MRZ - 4

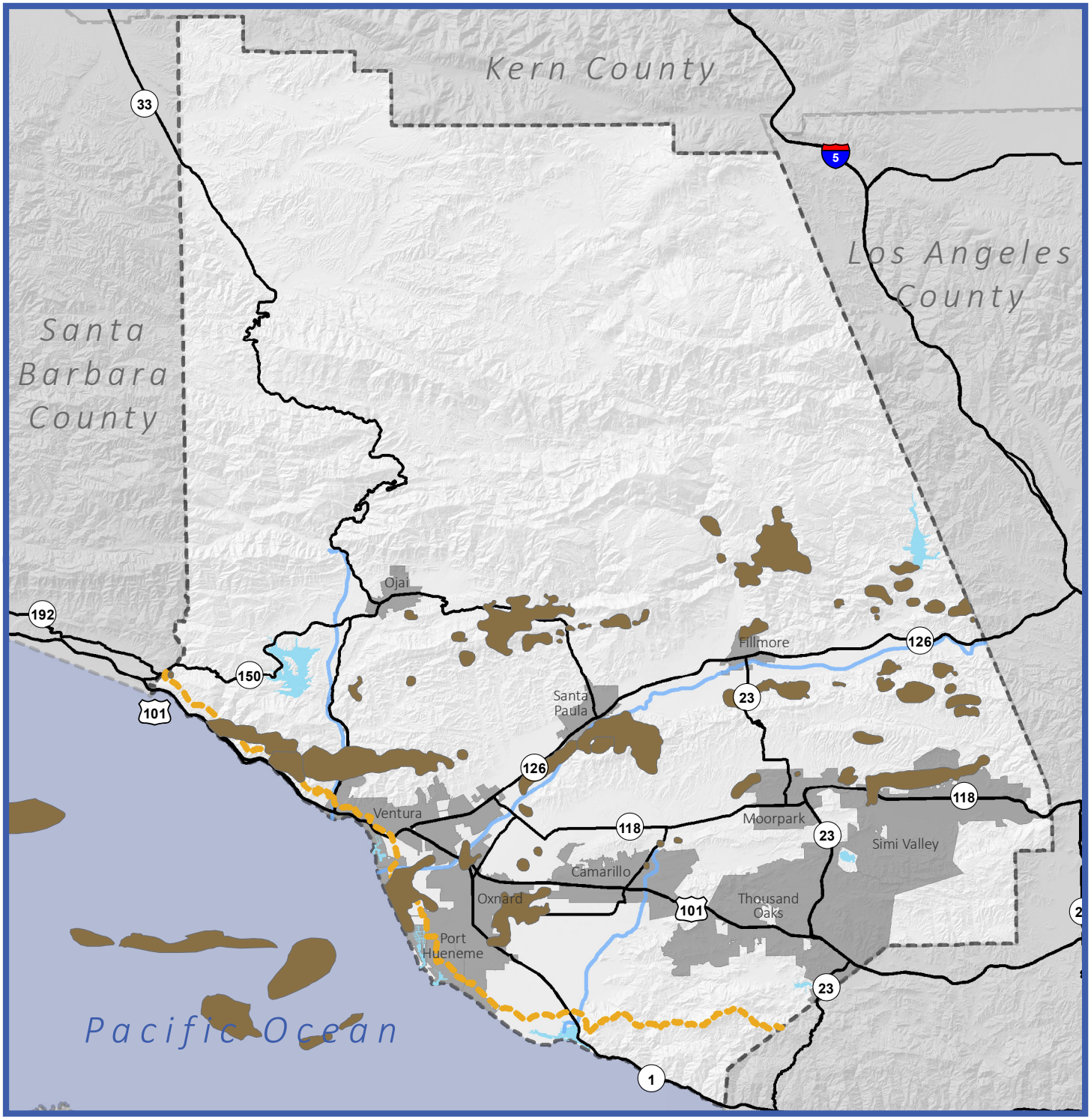
- Major Roadways
- Coastal Zone Boundary
- Major Waterways
- Water Bodies
- Cities

Petroleum Reserves

Petroleum reserves are defined as quantities of petroleum that are anticipated to be commercially recovered from known accumulations from a given date forward. Petroleum production accounts for approximately 75 percent of the total dollar value of mineral production of Ventura County. In 1988, petroleum production activities constituted 2.7 percent of the county's total economy, but by 2000 had decreased to 1.0 percent due to growth of other sectors in the county economy. In 2015, oil production in Ventura County reached 9,121,781 barrels. This level of production represents a 42 percent decrease in production from 1987 levels (15,659,398 barrels). The county's oil reserves are estimated by the State Division of Oil and Gas and Geothermal Resources (DOGGR) at 246,141,000 barrels.

The county's petroleum reserve areas are located in the northwest, northeast, central and south-coastal quadrants of the county, as well as offshore (see Figure 8-10). Production within three miles of the coast is under the jurisdiction of the State; beyond three miles, production is under federal jurisdiction. Crude oil prices influence the level of production and well-drilling activity in the county's oil fields. When prices are low, wells are placed in idle status (i.e. not in operation) and few or no new wells are drilled.

Ventura County has a number of oil reserves that are known as "heavy oil" where normal pumping methods are insufficient to bring the crude up to the surface. These heavy oil reserves require enhanced oil recovery (EOR) methods of production. The primary method of producing heavy oil is from cyclic steaming. The heat from injected steam lowers the viscosity of the heavy crude and allows it to be pumped to the surface. Another EOR method used in Ventura County is water flooding. This method (primarily used in the Ventura Avenue Oil Field) involves injection of water into an oil reservoir to increase or maintain reservoir pressure.



Ventura County 2040 GENERAL PLAN

Figure 8-10
Petroleum Resources

Map Date: July 19, 2016

Source: Ventura County, 2016; California Department of Transportation, 2007; USGS, 2013.

0 7.5 15 Miles

N

- Petroleum Fields
- Coastal Zone
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

Regulatory Setting

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) was enacted by the California legislature to promote the conservation of the state's mineral resources, ensure adequate reclamation of mined lands, and prevent or minimize the negative impacts of surface mining to public health, property and the environment. Among other provisions, SMARA requires the State Geologist to classify land in California into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of the land as determined by geological study. Upon completion of each study, the State Geologist submits the mineral land classification report to the State Mining and Geology Board (SMGB). The SMGB designates certain lands as MRZ-2 where they are underlain by mineral deposits of Statewide significance. The designation information is transmitted to local governments for incorporation into general plans and implanting zoning ordinances. Local agencies can serve as a "Lead Agency" under SMARA if they have adopted a surface mining ordinance in conformance with SMARA requirements. As a Lead Agency, a local government can approve Reclamation Plans and conduct inspections of mining facilities.

SMARA applies to anyone engaged in surface mining operations in California, including government agencies, and also applies to federally managed lands that disturb more than one acre or remove more than 1,000 cubic yards of material cumulatively from one site. Regulated mining activities include prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials.

The California Department of Conservation, Division of Mines and Geology (DMG) "Mineral Land Classification Project" publishes mineral resource maps for land use planning and mineral conservation, with updates approximately every 10 years.

The four MRZ categories are:

- MRZ-1: Areas of No Mineral Resource Significance
- MRZ-2: Areas of Identified Mineral Resource Significance
- MRZ-3: Areas of Undetermined Mineral Resource Significance
- MRZ-4: Areas of Unknown Mineral Resource Significance

The distinction between the MRZ-1 and MRZ-4 categories is important because MRZ-4 does not imply little likelihood for the presence of mineral resources, but rather a lack of knowledge regarding mineral occurrence. Further study could determine the reclassification of land in MRZ-4 areas to another category.

Reclamation Plans

Under SMARA, there are three requirements to operate a mining facility in California including:

1. A permit to mine granted by local land use permitting authority

2. A Reclamation Plan approved by the SMARA Lead Agency

3. A Financial Assurance adequate to reclaim the mining site in conformance with the approved Reclamation Plan.

A Reclamation Plan must delineate the configuration of the final reclaimed surface of the mining site, describe the measures taken to revegetate the site, and how the site will be restored to an alternate end use in conformance with the SMGB Reclamation Regulations. All reclamation plans must be prepared in conformance with the provisions of the SMARA (Section 2772 and Section 2773) and state regulations (CCR Sections 3500-3505 and 3700-3713).

The State requires that a Mining Report be submitted annually by each mine operator and include information about the amount of land disturbed during the previous year, acreage reclaimed during the previous year, and any amendments to the mine's reclamation plan.

Local

2005 Ventura County General Plan

The General Plan covers mineral resources in Chapter 1, Resources. Section 1.4 includes goals, policies, and programs related to mineral resources. The following Area Plans also contain applicable goals and policies related to mineral resources:

- El Rio/Del Norte Area Plan;
- Ojai Valley Area Plan; and
- Piru Area Plan.

2011 Initial Study Assessment Guidelines

The Initial Study Assessment Guidelines include criteria for evaluating environmental impacts for mineral resources. These can be found in Sections 3a. Mineral Resources-Aggregate and 3b. Mineral Resources-Petroleum.

2015 Ventura County Non-Coastal Zoning Ordinance

The Non-Coastal Zoning Ordinance regulates mineral resources through Section 8104-7.2 - Mineral Resources Protection (MRP) Overlay Zone.

Key Terms

Minerals. Minerals are defined as naturally occurring, inorganic, homogenous solids with a definite chemical composition and an ordered atomic arrangement.

Ore. Ore is the naturally occurring material that mineral or minerals of economic value can be extracted**.**

SMARA. The Surface Mining and Reclamation Act of 1975 was enacted to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property and the environment.

Mineral Resource Zone (MRZ). A Mineral Resource Zone indicates the significance of mineral deposits present or the likelihood of their presence. Zones are designated 1-4 according to their known or inferred mineral potential**.**

PCC. Portland Cement Concrete.

Mineral Resources. Aggregates **(**sand, gravel, and crushed rock).

PCR. A Production Consumption Region is one or more aggregate production districts (a group of producing aggregate mines) and the market area they serve, and sometimes cross county boundaries.

Petroleum Resources. Petroleum resources are defined as those quantities of petroleum which are anticipated to be commercially recovered from known accumulations from a given date forward.

DOG. California Department of Oil and Gas DOGGR. Division of Oil, Gas and Geothermal Resources.

EOR. Enhanced oil recovery methods, such as pressure, heat or chemicals used to release oil.

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Persons Contacted

Brian R. Baca. County of Ventura, Resource Management Agency Planning Division, Commercial and Industrial Permits Manager.

SECTION 8.5 ENERGY RESOURCES

Introduction

This section describes the existing conditions and regulatory framework related to energy resources in Ventura County. Energy resources are important natural resources that support the expansion of the region's economic base, its agricultural sector, and infrastructure capacity. Energy resources described in this section are limited to: onshore and offshore oil and gas production and electrical generation from renewable sources within Ventura County.

Major Findings

- No new offshore oil and gas development is anticipated within Ventura County or nearby federal waters due to regulation and opposition from the California State Lands Commission (SLC);
- Onshore oil production in Ventura County accounts for four percent of overall crude oil production in California;
- Offshore oil production in Ventura County accounts for 0.1 percent of overall crude oil production in California;
- Onshore natural gas production in Ventura County accounts for four percent of overall natural gas production in California;
- Offshore natural gas production in Ventura County accounts for 0.1 percent of overall natural gas production in California;
- According to the California Energy Commission, hydroelectric and biomass facilities are the only current sources of renewable energy generation in Ventura County.

Existing Conditions

Oil

There are currently 57 oil companies operating in Ventura County under the authority of 135 conditional use permits granted by the County to authorize oil and gas activities. According to the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR), 9,121,781 barrels (bbl) of oil were produced onshore, and 260,943 bbls were produced offshore in Ventura County in 2015). This accounts for four percent of overall crude oil production onshore within the State of California and 0.1 percent of offshore production (Energy Information Administration [EIA], 2016). According to the U.S. Census Bureau, there were 431 employees working in Ventura County for the oil and gas extraction establishment in 2014.

According to DOGGR, 8,369 oil and gas wells have been drilled in Ventura County, and there are 2,450 active and 1,208 idle oil and gas wells in the couny. There are also 614 active water injection wells in the county. It is illegal to inject water into drinking water aquifers with less than 3,000 Total Dissolved Solids (TDS) without an exemption from the Environmental Protection Agency (EPA). In aquifers with a TDS of 3,000 to 10,000 an EPA exemption is required where it is demonstrated that the water in question has no potential for future beneficial use. DOGGR identifies *active* oil and gas wells as those that have been

drilled and completed, whereas an *idle* well is one that is not producing at a certain period but is capable of being reactivated. DOGGR classifies wells as *new* if they are recently permitted and still in the process of being drilled. Figure 8-11 shows the locations of active, idle, and new oil and gas wells in Ventura County as of May 2017.

Oil and gas is produced in Ventura County using both traditional and enhanced recovery techniques. In all cases, oil is recovered by collecting the fluid (oil and water) that flows into a wellbore through perforations in the well casing. In almost all wells in the county, the reservoir pressure is insufficient to cause this fluid to flow to the surface. Thus, most oil is brought to the surface through the use of a pumping unit. Enhanced recovery techniques serve to increase the flow of the fluid into the wellbore. These techniques include steam injection, water injection, and hydraulic fracturing. Steam injection is typically utilized in reservoirs considered to contain heavy crude oil.

There are several federal and state oil and gas leases offshore of Ventura County. Oil and gas produced from these leases are transported by pipeline to several onshore facilities within the county. These leases were developed with the construction of offshore platforms and a manmade drilling island. The facilities that send oil and gas onshore to Ventura County are:

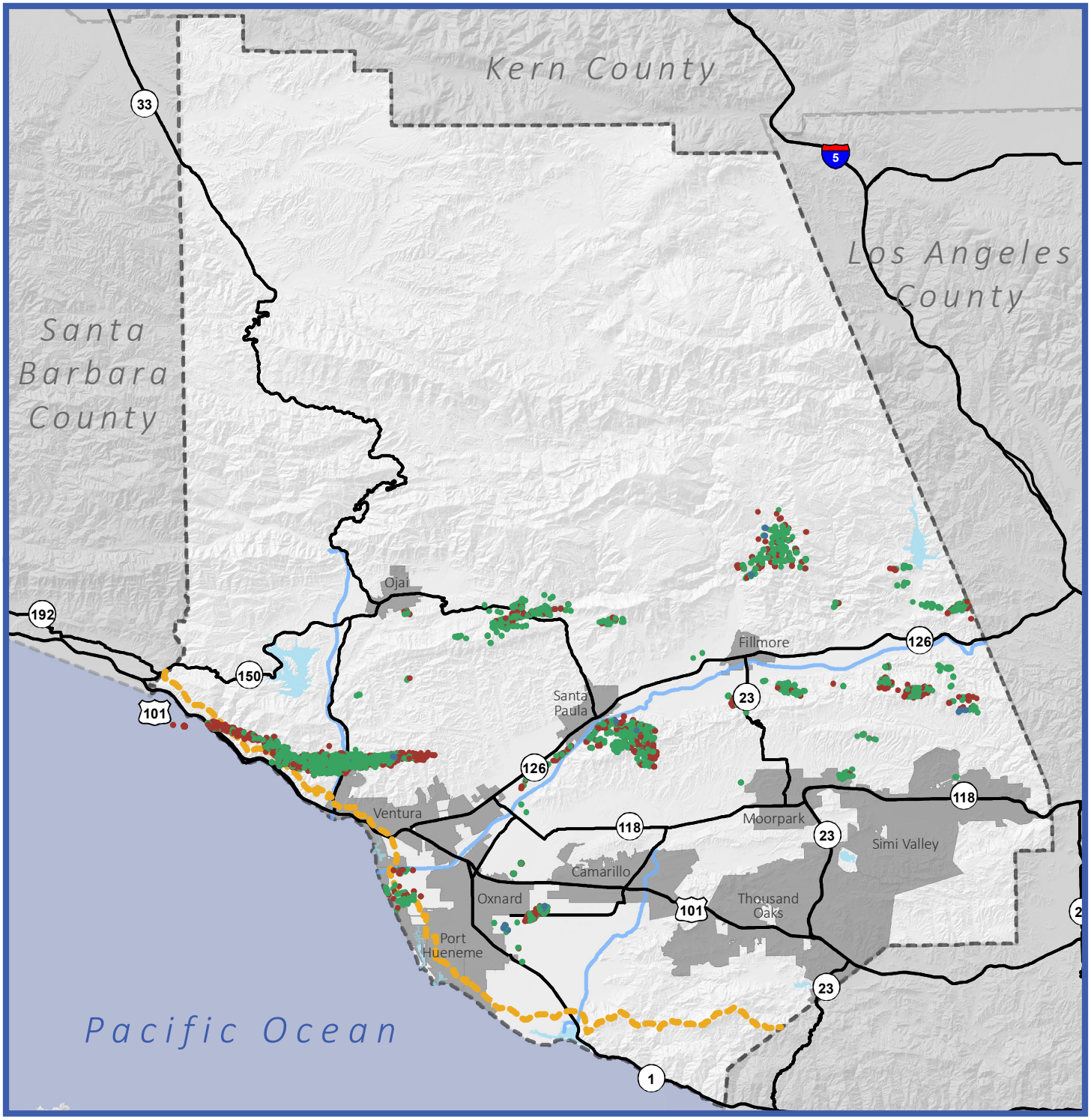
- Platform Gina
- Platform Gilda
- Platform Grace (currently not producing)
- Platform Henry
- Platform Hogan
- Platform Houchin
- Platform Hillhouse and its neighbors “A”, “B”, and “C”
- Rincon Drilling Island

The facilities listed above, with the exception of the Rincon Drilling Island, are located greater than three miles offshore within the federal Outer Continental Shelf (OCS). Due to the location of these offshore facilities, they are under the jurisdiction of the U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement and are not considered to be within the boundaries of Ventura County. The Rincon Drilling Island is a man-made island located within Ventura County and is under the jurisdiction of various state and local agencies.

Production from platforms Gina and Gilda is conveyed to the Mandalay Onshore Separation Facility located in the City of Oxnard. This facility processes the crude oil sent from the two platforms and sends any gas directly to the Mandalay Beach Electric Generating Station owned by Reliant Energy.

Production from Platforms Henry, Hillhouse, and “A”, “B”, and “C” is sent to the Rincon Oil and Gas Processing Facility. This facility exclusively processes oil and gas from OCS leases.

Production from Platforms Hogan and Houchin goes to the Pacific Offshore Operators Inc. facility in La Conchita. This facility exclusively processes oil and gas from OCS leases.



Ventura County 2040 GENERAL PLAN

Figure 8-11: Oil and Gas Wells

Map Date: September 01, 2017

Source: California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), DOGGR Wells Metadata (Table), May 15, 2017.

0 7.5 15 Miles

N

- Coastal Zone Boundary
- Major Roadways
- Major Waterways
- Water Bodies
- Cities

Status

- New (38)
- Active (2,484)
- Idle (1,266)

Production from the Rincon Island is connected to the mainland by an elevated 2,700-foot-long causeway. Production is then piped to a two-phase (gas/emulsion) separator. Oil and water are separated and the oil is sent through a lease automatic custody transfer (LACT) meter at which point it is sold, and the gas is sent to a sales gas scrubber where it is sold to the Rincon Onshore Facility owned by Dos Cuadros Offshore Resources, LLC.

There was one oil refinery (i.e., the Oxnard Refinery) located in Ventura County. This facility was closed in December 2011(CEC, 2015). There are no other oil refineries located within Ventura County.

Gas

Natural gas is produced along with crude oil in Ventura County. According to the State of California's Division of Oil and Gas and Geothermal Resources (DOGGR), 8,593,807 thousand cubic feet (mcf) of natural gas were produced in Ventura County in 2015. This accounts for 0.004 percent of overall onshore natural gas production within the State of California (EIA, 2016).

The U.S. has an integrated transmission and distribution natural gas pipeline network that spans the lower 48 states. This network includes natural gas pipelines, compressor stations, delivery, receipt, and interconnection points, underground natural gas storage facilities, and liquefied natural gas import facilities. There are no interstate natural gas pipelines within Ventura County, but there are several intrastate pipelines within the county that support the natural gas pipeline network.

Offshore natural gas production in the State of California was 34,206 million cubic feet (MMcf) in 2014, Ventura County contributed 156 MMcf to that total (about 0.5 percent of the total).

Renewables

Statewide renewable energy sources include solar/photovoltaic (PV), geothermal, hydroelectric, wind, and biomass facilities. In 2014, renewable energy generation in Ventura County accounted for 25,536 MWh, or approximately 1.9%, of the 1,372,930 MWh of total energy generation (California Energy Commission [CEC], 2016). Biomass energy generation occurred at the Toland Landfill (operated by the Ventura Regional Sanitation District), Oxnard Wastewater Treatment Plan (operated by the City of Oxnard Wastewater Division) and Simi Valley Landfill (operated by WM Energy Solutions Inc.) and accounted for 23,379 MHh of energy generation. Hydroelectric energy generation occurred at the Springville Reservoir in Camarillo (operated by Calleguas Municipal Water District) and Santa Felicia Dam (operated by United Water Conservation District) and accounted for 2,157 MWh in energy generation. There are currently no large-scale solar/PV plants in Ventura County and the county does not have areas that are well-suited for such facilities (according to the National Renewable Energy Laboratory [NREL]). The County's "Build It Smart" program does, however, encourage installation of solar panel/PV systems on residential, commercial, and commercial projects. This includes providing references to incentives for existing building retrofits and new construction (e.g., California Solar Initiative, California New Solar Homes Partnership, federal tax credits, property tax exemptions).

Regulatory Setting

Federal

The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC also reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines as well as licensing non-Federal hydropower projects. Licensing of hydroelectric under the authority of FERC includes input from State and Federal energy, environmental protection, fish and wildlife, and water quality agencies. The CECs Systems Assessment and Facilities Siting Division provides coordination to ensure that needed energy facilities are authorized in an expeditious, safe, and environmentally acceptable manner.

State

All Ventura County oil and gas wells (development and prospect wells) located onshore or offshore within three nautical miles of the coast line, located on state and private lands, are permitted, drilled, operated, maintained, plugged and abandoned under requirements and procedures administered by DOGGR. Additionally, DOGGR is the state agency responsible for issuing well stimulation technique permits to oil and gas operators utilizing hydraulic fracturing, acid fracturing, and/or acid matrix stimulation treatments. Currently, there are no active well stimulation permits for any wells located in Ventura County. Under the requirements of the California Public Resources Code, the California Energy Commission in conjunction with DOGGR is required to assess oil and natural gas resources on an annual basis or as necessary.

State tide and submerged lands include the area from mean high tide seaward to the three-mile boundary with the federal OCS. Development of oil and gas resources on existing leases in this area is subject to the regulatory authority of the State Lands Commission. The issuance of new oil and gas leases on state tide and submerged lands is currently restricted by the 1994 California Coastal Sanctuary Act, which prohibits new leasing for oil and gas extraction in State waters except: (1) in the event of a severe national energy supply interruption; or (2) when the State determines that state-owned oil or gas deposits are being drained by producing wells located upon adjacent Federal lands and the lease is in the best interests of the State. The SLC has not granted an offshore development lease in approximately 50 years, and it is anticipated that no leases would be granted in the future.

Local

2005 Ventura County General Plan

The General Plan covers mineral resources in Chapter 1, Resources. Section 1.7 (Mineral Resources) includes goals, policies, and programs related to petroleum resources (oil and gas) and aggregate resources (sand and gravel).

2016 Non-Coastal Zoning Ordinance

Section 8107-5 of the County's Non-Coastal Zoning Ordinance addresses oil and gas exploration and production. It outlines limitations, safeguards, and controls for exploration and production facilities and operations, with the intent of ensuring that development activities will be conducted in harmony with other uses and that the rights of surface and mineral owners are balanced.

Key Terms

The following key terms used in this chapter are defined as follows:

API Gravity — a measure of how heavy or light petroleum liquid is compared to water. If API gravity is greater than 10, the liquid petroleum it is lighter than, and floats on water; if less than 10, it is heavier than water and sinks. It is used to compare the relative densities of petroleum liquids.

Associated Gas – natural gas produced in association with crude oil.

Barrel (bbl) — a measure of volume for petroleum products in the United States. One barrel is the equivalent of 42 Unites States gallons, or 0.15899 cubic meters.

Development Well - a well drilled to a known producing formation in a previously discovered field.

Field — an accumulation, pool, or group of pools of hydrocarbons or other mineral resources that are subsurface. A hydrocarbon field consists of a reservoir with trapped hydrocarbons covered by an impermeable sealing rock, or trapped by hydrostatic pressure.

Heavy Crude Oil – crude oil with high viscosity and high specific gravity relative to light crude oil.

Injection Well – Wells that inject fluid or gas deep underground, also referred to as Underground Injection Control (UIC) wells. Injection well types nclude water disposal, gas storage, gas disposalsteam flood, pressure maintenance, air injection, water flood, and cyclic steam wells.

Light Crude Oil – crude oil with low viscosity and a low specific gravity relative to heavy crude oil.

Non-Associated Gas – gas produced in a gas field, not associated with crude oil production.

Prospect Wells – any well drilled for the purpose of securing geological or geophysical information to be used in the exploration or development of oil, gas, geothermal, or other mineral resources.

Well Stimulation Technique — Any treatment of a well designed to enhance oil and gas production or recovery by increasing the permeability of the formation. Well stimulation treatments include, but are not limited to, hydraulic fracturing treatments and acid well stimulation treatments. Well stimulation treatments do not include steam flooding, water flooding, or cyclic steaming and do not include routine well cleanout work, routine well maintenance, routine removal of formation damage due to drilling, bottom hole pressure surveys, or routine activities that do not affect the integrity of the well or the formation.

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SECTION 8.6 CULTURAL, HISTORICAL, PALEONTOLOGICAL, AND ARCHAEOLOGICAL RESOURCES

Introduction

The term "cultural resources" is most frequently identified with prehistoric (archaeological) or historic items. These can include prehistoric and historic districts, sites, structures, artifacts and other evidence of human use considered to be of importance to a culture, subculture, or community for traditional, religious, scientific or other reasons. Cultural resources in Ventura County include prehistoric aboriginal Indian sites, historic areas of occupation and activity, and features of the natural environment. Cultural resources also include non-renewable, nonmaterial resources such as cognitive systems (including meanings and values attached to items of material culture, biota, and the physical environment), religion and world views, traditional or customary behavior patterns, kinship and social organization, folklore, and so on.

Archaeological resources refer to the material remains (artifacts, structures, refuse, etc.) produced by human beings, whether intentionally or accidentally. The scientific study of these remains can lead to identification of activities, types of adaptation to the environment, and changes in activities and organization groups of people in the past experienced. Furthermore, these remains often have special significance to Native Americans, ethnic groups, special interest groups (e.g., avocational archaeologists), as well as the general public.

Historical resources refer to the material and nonmaterial expressions of human adaptations that characterized the post-contact (historic) period. These resources include historic event or activity sites, historic archaeological sites, standing architecture and other significant properties, and documents and other sources of historical information, and objects of material culture. Also, more nonmaterial cultural qualities, such as folklore, social organization, and value systems, can be associated with these properties.

Paleontological resources refer to the fossilized remains of plant and animal life. In Ventura County, paleontological remains include examples from most of geological history, including the Paleozoic (600 to 225 million years ago), the Mesozoic (225 to70 million years ago), and the Cenozoic (70 million years ago to the present). Careful scientific study of fossilized life forms preserved in the sedimentary and metamorphic rocks of the Ventura County region can lead to identification of local paleo-environmental conditions and biological evolutionary trends. In addition, certain fossil remains are only found in isolated outcrops in Ventura County and are therefore of unique scientific interest.

Major Findings

- There are 1,637 prehistoric archaeological sites that have been documented within Ventura County, according to a 2016 Archaeological Records Search through the California Historical Resources Information System (CHRIS)-Southern Central Costal Information Center (SCCIC), at California State University, Fullerton.
- There are 282 historic sites that have been documented within Ventura County, according to a 2016 Historical Records Search through the CHRIS-SCCIC at California State University, Fullerton.

- There are 316 vertebrate fossil localities that have been documented within Ventura County, according to a 2016 Paleontological Record Search through the Natural History Museum of Los Angeles (NHMLAC).
- 36 historic sites are listed on the National Register of Historic Places. Among these, 10 are classified as districts, and 21 are buildings.
- One historic site is listed as a National Historic Landmark (Rancho Camulos).
- 46 historic sites are listed on the California Register of Historical Resources. Among these, 10 are classified as districts, and 25 are buildings.
- 14 historic sites are designated as California Landmarks.
- 177 historic sites are designated as Ventura County Historical Landmarks.
- Eleven historic sites are listed on the Ventura County Historical Points of Interest.
- 566 historic sites are listed asVentura County Sites of Merit.

Existing Conditions

Cultural/Historical/Paleontological/Archaeological Resources

Cultural resources in Ventura County includes an archaeological record encompassing at least 8,000 years of prehistoric settlement, from the rich Native American heritage of the Chumash people, to over two hundred years of history influenced by the Spanish, Mexican, Anglo-American, and many other immigrants who came to Ventura County.

Archaeological Resources

Ventura County is archaeologically and culturally significant and has one of the densest Native American populations in North America. Archaeological sites associated with the Ventureno Chumash exist throughout the county, particularly adjacent to existing and former natural water and food sources. Many Chumash sites have been located, and the potential for remaining undiscovered sites within the county is high (Ventura County General Plan: Goals, Policies and Programs 2015: 22).

Prehistoric Period

The Ventureno Chumash who have occupied the Ventura County area for at least 8,000 years, have a recognized chronology based on three time periods: The Early Period (ca. 8,000 B. C. - 1,200 B. C.), the Middle Period (1,200 B. C. - 1,100 A. D.), and the Late Period (1,100 A. D. – European Contact). The Chumash migrated to Ventura County around 8,000 B.C. and were linguistically distinct from their Chumash neighbors. They lived in matrilineal villages, called Rancherias by the Spanish (Grant Smith 1978:510).

The Early Period (ca. 8,000 B. C. - 1,200 B. C.) shows evidence of a well-developed hunter-gatherer subsistence and economic strategy, the utilization of land and marine resources, the gradual increase in population growth, and the implementation of social and behavioral practices (Grant 1978:519).

The Middle Period (1,200 B. C. - 1,100 A. D.) exhibited the sophisticated use of organizational technologies in the development of ocean-going vessels, the use of circular fishing hooks and fishing nets for the exploitation of marine resources. During this period, inland regions were becoming increasingly more populated, which brought about stable trade and ceremonial exchange between the coastal villages and the inland peoples (Grant1978:518).

Late Period (1,100 A. D. - Historic Chumash) indicates increase population and sophisticated refinements in the craftsmanship of basketry, stonework, beadwork, as well as seagoing craft and associated technologies. Chumash social and religious practices were also highly evolved. Large populations were supported by an abundance of varied local natural resources (Grant 1978:519).

Impacts to Archaeological Resources

The potential loss of archaeological resources means information that could be important to understanding the pre-history of Ventura County and its people would be lost. The County recognizes the significance of archaeological sites as a link to understanding human and environmental history, and has set policies and programs to protect these sites from destruction or damage to the extent feasible possible through the County's Initial Study Assessment Guidelines and General Plan (Ventura County General Plan: Goals, Policies and Programs 2015).

Historical Resources

The history of Ventura County encompasses the remains of the Spanish colonial empire, with the establishment of the Mission system from 1782 to1834, which brought an estimated 2,500 to 4,200 Ventureno Chumash Indians under Spanish control. The Rancho Era from 1835-1847 began the hacienda system of large land grants and economic organization to the area. Finally, the American Period from 1848 to the Present, saw the drafting of the California Constitution and statehood in 1849, which generated unprecedented economic growth and development to Ventura County.

Mission Period (1772-1834 A.D.)

San Buenaventura mission located in historic downtown Ventura was founded on March 31, 1782. The mission was the ninth and last mission consecrated by Father Junipero Serra during the California Mission Period from 1772 until 1834, when the missions were secularized by the Mexican Government (Dallas 2004:159). The traditional lifestyle of the Chumash people changed forever during this period with their removal from their established settlements onto the mission grounds. There the Chumash were required to work long hours at menial tasks under the strict supervision of the Spanish Missionaries. The Chumash routinely worked a 6-day work week, living in the cramped confines of the mission they were exposed to European diseases and their population dropped dramatically during this period. In 1770 there might have been over 8,000 people, but by 1852 only 1,107 Chumash are listed in the mission census. The Chumash were not equipped physiologically or mentally for the European diseases or the strict regimented life style demanded by the Spanish Missionaries (Grant 1978:507).

Rancho Period (1835 -1847A.D.)

In 1821, Mexico won independence from Spain and began to dismantle the mission system in California. The mission system was replaced by the "Rancho Period". The Rancho Period was an era in California history when the entire state was divided into large parcels of land equaling thousands of acres a piece.

These large estates were ruled over in a semi-feudal manner by men who had been deeded the land by first the Spanish crown, and later the Mexican government (Goldberg 2001:50-52). By 1882, the Mexican government had granted 19 ranchos in Ventura County (Ventura Weekly 2005). As the missions began to secularize, they were transformed into small towns and most Native Americans would later be marginalized into reservations or into American society. It was during this time that "Americans" began to enter California. Many of the American Californians married into the Rancho families, a development that would transform land ownership into American hands. By the time the United States annexed California after the Mexican-American War in 1850, much of the Rancho lands were already in the hands of Americans (Goldberg 2001:50-52).

American Period (1848-Present)

The Anglo-American Period displaced the original Spanish and Mexican rancho holders, and by the 1870s had emerged as the dominant economic class. The period saw the establishment of new local towns and economic growth as the results of the new railroad and oil exploration, which spurred development throughout Ventura County. During the oil boom of the 1920s, public and private economies flourished, though development was stalled by the Great Depression of 1929. Still, however, some vestiges of the urban and rural infrastructure developed during that time (roads, dams, farmlands, oilfields, etc.) are still evident in the county today.

Impacts to Historical Resources

There are many historical resources that are still largely intact in Ventura County. Examples include: adobe houses and structures, wharves, farms, ranches, diaries, the Mission San Buenaventura, the mission's aqueduct system, and other associated mission structures (chapel foundation, corrals and barns), or their remnants. There are many examples of historic architectural structures which showcases the county's rich history; Spanish Colonial, Mexican Rancho, Victorian and Revival, California Bungalow and California Ranch style homes and buildings. The County's Cultural Heritage Board regularly reviews historic properties and sites for listing as a Cultural Heritage Sites. The potential loss of historic resources would mean the loss of information important to an understanding of the history and development of Ventura County. The value of this information is not restricted solely to residents of the county, but to all Californians because it is part of the state's history, too. The County recognizes the significance of historic resources, sites and properties as a link to understanding human and environmental history, and has set policies and programs to protect these historic resources from destruction or damage to the extent feasible possible through the County's Initial Study Assessment Guidelines and General Plan (Ventura County General Plan: Goals, Policies and Programs 2015).

Paleontological Resources

Paleontological resources refer to the fossilized remains of plant and animal life. Examples of paleontological remains in the county are from most of geological history, including the Paleozoic (600 to 225 million years ago), the Mesozoic (225 to 70 million years ago), and the Cenozoic (70 million years ago to the present). Careful scientific study of fossilized life forms can help in understanding local paleo-environmental conditions and biological evolutionary trends. In addition, certain fossil remains are only found in isolated outcrops in the county and are therefore of unique scientific interest.

A wide variety of paleontological resources exist within the county. The coastal and interior zones of Ventura Country in particular contain areas with marine and terrestrial fossils that are among the best in Southern California. Paleontological resources are present in many of the geologic formations in the

county. The region is part of the Transverse Range, which is an east-west trending Tertiary (70 to 1 million years ago) sedimentary mountain corridor that encompasses many different kinds of fossil organisms. These fossil remains could provide a record of lifeforms over millions of years. Fossil remains are considered important if they are: 1) well preserved; 2) identifiable; 3) type/topotypic specimens; 4) age diagnostic; 5) useful in environmental reconstruction; 6) representative of rare and/or endemic taxa; 7) representative of a diverse assemblage; and/or 8) representative of associated marine and non-marine taxa. Vertebrate and Megainvertebrate fossils are considered highly important because they are comparatively rare and allow precise age determinations and environmental reconstructions for the strata in which they occur. Microinvertebrate fossils (microfossils) are much more abundant; for this reason and because of their small size, they would not be adversely impacted to the same degree as vertebrate and megainvertebrate fossils.

Impact to Paleontological Resources

Potential impacts to fossil sites from construction activities include the progressive loss of exposed rock, along with the unauthorized collection of fossil materials. Such losses would be irreplaceable. The California Environment Quality Act (CEQA) requires that impacts to paleontological resources be assessed and mitigated on all discretionary projects, public, and private under CEQA Guidelines Section 8.16.2.2. The County recognizes the significance of marine and terrestrial fossils by preserving these sites to the fullest extent possible through policies and programs set forth in the County's Initial Study Assessment Guidelines and General Plan to preserve any information these sites may yield (Ventura County General Plan: Goals, Policies and Programs 2015).

Regulatory Setting

Cultural resources are indirectly protected under the provisions of the Federal Antiquities Act of 1906 (16 U.S.C. §§ 431 et seq.) and subsequent related legislation, regulations, policies, and guidance documents (federal, state, and local) in California.

Federal

National Historic Preservation Act of 1966 (NHPA)

The NHPA establishes the nation's policy for historic preservation and a program for the preservation of historic properties, requiring federal agencies to consider effects to significant cultural resources (i.e., historic properties) prior to undertakings.

Section 106 of the Federal Guidelines

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the National Register of Historic Places (NRHP), and that the Advisory Council on Historic Preservation (ACHP) and State Historic Preservation Officers (SHPO) must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings.

National Register of Historic Places (NRHP)

The NRHP was established by the NHPA as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B: It is associated with the lives of persons who are significant in our past.

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Antiquities Act of 1906

The Antiquities Act of 1906 provides for the protection of historic, prehistoric, and scientific features located on federal lands. It authorizes the President to designate as National Monuments historic and natural resources of national significance located on federally owned or controlled land. The Secretaries of the Interior, Agriculture and Defense are authorized to issue permits for archaeological investigations on lands under their control to recognized educational and scientific institutions for the purpose of systematically and professionally gathering data of scientific value.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act of 1978 states that it is a policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.

State

California Environmental Quality Act (CEQA)

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR, or is not included in a local register or survey, does not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.

CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource or (2) the archaeological resource satisfies the definition of a "unique archaeological resource." A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1) The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

2) The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.

3) The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, recommended by the State Historical Resources Commission, or officially designated by the Director of California State Parks. The specific standards in use now were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California);
- Associated with an individual or group having a profound influence on the history of California; or
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Points) designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a

Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county)
- Associated with an individual or group having a profound influence on the history of the local area
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent state policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Senate Bill 18

Senate Bill (SB) 18 (California Government Code, Section 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time

frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is also a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requests in writing to the lead agency, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes these provisions applicable to projects that have a notice of preparation, a notice of negative declaration filed, or mitigated negative declaration on or after July 1, 2015.

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease and the County Coroner be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code, Section 622.5

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Local

2005 Ventura County General Plan

The General Plan covers cultural, historical, paleontological, and archaeological resources in Chapter 1, Resources. Section 1.8 includes goals, policies, and programs related to cultural, historical, paleontological, and archaeological resources. The following Area Plans also contain applicable goals and policies related to cultural, historical, paleontological, and archaeological resources:

- Coastal Area Plan;
- El Rio/Del Norte Area Plan;
- Oak Park Area Plan;
- Ojai Valley Area Plan;
- Piru Area Plan;
- Saticoy Area Plan;
- Thousand Oaks Area Plan; and
- Lake Sherwood/Hidden Valley Area Plan.

2011 Initial Study Assessment Guidelines

The Initial Study Assessment Guidelines include criteria for evaluating environmental impacts for cultural, historical, paleontological, and archaeological resources. These can be found in the following sections: 7. Paleontological Resources; 8a. Cultural Resources-Archaeological; and 8b. Cultural Resources-Historic.

2015 Ventura County Non-Coastal Zoning Ordinance

The Non-Coastal Zoning Ordinance regulates cultural, historical, paleontological, and archaeological resources through Section 8107-37 Cultural Heritage Sites and Section 8107-39 Historic Repositories.

2016 Coastal Zoning Ordinance

The Coastal Zoning Ordinance regulates cultural, historical, paleontological, and archaeological resources through Section 8178-3 Archaeological and Paleontological Resources.

County of Ventura County Cultural Heritage Ordinance

The purpose of Ventura County Cultural Heritage Ordinance No. 4225 is to promote the economic and general welfare of Ventura County by preserving and protecting public and private historic, cultural, and natural resources that are of special historical or aesthetic character or interest, or relocating or recreating such resources where necessary for their preservation and use, education, and view by the general public. All such efforts are taken to make sure the citizens of this county, and visitors, and tourists mindful of the rich historical, cultural, and natural heritage of the county (County of Ventura 2000).

Key Terms

Assembly Bill 52. Assembly Bill (AB) 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment.

Archaeological Resources. The material remains (artifacts, structures, refuse, etc.) produced purposely or accidentally by human beings.

California Historical Resources Information System (CHRIS). The California Historical Resources Information System (CHRIS) consists of the California Office of Historic Preservation (OHP), nine Information Centers (ICs), and the State Historical Resources Commission (SHRC). The nine ICs provide historical resources information, generally on a fee-for-service basis, to local governments, state and federal agencies, Native American tribes, and individuals with responsibilities under the National Environmental Policy Act, the National Historic Preservation Act, and the California Environmental Quality Act (CEQA), as well as to the general public.

California Register of Historical Resources. Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change.

California Landmarks. California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance.

Cultural Resources. Cultural resources include places, object, sites, features, districts, and settlements that are over 45 years old, which reflect group or individual religious, archaeological, architectural, or paleontological activities.

Historical Resources. Refers to the material and nonmaterial expressions of human adaptations that were produced during the post-contact or historic period, when Europeans first arrived in North America.

National Historic Landmark. National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States.

National Register of Historic Places. The National Register of Historic Places (NRHP) was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment.

Native American Sacred Site. Defined as an area that has been, and often continues to be, of religious significance to Native American peoples, such as an area where religious ceremonies are practiced or an area that is central to their origins as a people.

Paleontological Resources. Refers to the fossilized remains of plants and animal life.

Tribal Cultural Resources. A Tribal Cultural Resource as defined in AB 52 are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe(s).

Ventura County Historical Landmarks. Are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have historical County significance.

Ventura County Sites of Merit. Sites of historical, cultural, architectural or aesthetic merit which have not been officially designated, but have been surveyed according to Federal standards as required by Ventura County's Certified Local Government agreement. Said sites shall also be listed in a County approved survey with a National Register status code of 5 or above and have been so designated by the Ventura County Cultural Heritage Board or the Ventura County Board of Supervisors according to the provisions of this Ordinance.

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Persons Contacted

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SECTION 8.7 APPENDICES

Appendix 8A. Ambient Air Quality Standards

**TABLE 8-8
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards[1]	National Standards[2]
		Concentration[3,4]	Primary[3,5,7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	—
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 µg/m^3	150 µg m^3
	Annual Arithmetic Mean	20 µg/m^3	—
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	—	35 µg/m^3
	Annual Arithmetic Mean	12 µg m^3	12.0 µg/m^3
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	8 Hour (Lake Tahoe)	6 ppm (7 mg/ m^3)	—
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)
	3 Hour	—	—
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)[10]
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)[10]
Lead[12,13]	30 Day Average	1.5 µg/m^3	—
	Calendar Quarter	—	1.5 µg/ m^3 (for certain areas)[12]
	Rolling 3-Month Average	—	0.15 µg/m^3
Visibility Reducing Particles[14]	8 Hour	See footnote 13	—
Sulfates	24 Hour	25 µg/m^3	—
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	—
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	—

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide,and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard.

For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3, as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board (CARB). Ambient Air Quality Standards October 1, 2015. Data compiled by Ascent Environmental 2016.

Appendix 8B. Estimated Daily Emissions for Ventura County

TABLE 8-9 PROJECTED ANNUAL EMISSIONS (TONS PER DAY)[1] Ventura County 2015								
Category	**TOG**	**ROG**	**CO**	**NO_X**	**SO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**
Stationary Sources								
Fuel Combustion	1.3	0.2	2.5	1.7	0.1	0.2	0.2	0.2
Waste Disposal	9.3	0.1	0.3	0.1	0.0	0.0	0.0	0.0
Cleaning and Surface Coatings	5.8	4.0	-	-	-	0.0	0.0	0.0
Petroleum Production and Marketing	23.8	2.4	0.2	0.0	0.0	0.0	0.0	0.0
Industrial Processes	0.5	0.4	0.2	0.1	0.0	0.6	0.3	0.1
Subtotal	*40.7*	*7.1*	*3.2*	*1.8*	*0.2*	*0.8*	*0.6*	*0.4*
Area-wide Sources								
Solvent Evaporation	9.9	8.6	-	-	-	-	-	-
Miscellaneous Processes	6.1	2.2	14.4	1.3	0.1	26.8	14.2	3.9
Subtotal	*16.0*	*10.8*	*14.4*	*1.3*	*0.1*	*26.8*	*14.2*	*3.9*
Mobile Sources								
On-Road Motor Vehicles	6.7	6.2	58.6	13.7	0.1	-	1.2	0.6
Other Mobile Sources	7.7	7.0	46.5	8.6	0.2	0.8	0.8	0.7
Subtotal	*14.3*	*13.1*	*105.1*	*22.4*	*0.3*	*0.8*	*2.0*	*1.3*
TOTAL (ALL SOURCES)	**71.0**	**31.1**	**122.7**	**25.5**	**0.5**	**28.4**	**16.8**	**5.5**

[1] Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; ROG = reactive organic gases; SO_x = sulfur oxides; TOG = total organic gases.

Source: California Air Resources Board (CARB). 2015 Estimated Annual Average Emissions – Ventura County. The California Almanac of Emissions and Air Quality. 2013 Edition. http://www.arb.ca.gov/app/emsinv/2013/emssumcat.php, March 22, 2016a. Data compiled by Ascent Environmental 2016.

Appendix 8C. Summary of Air Pollutant Concentrations

TABLE 8-10
SUMMARY OF AIR POLLUTANT CONCENTRATIONS
Ojai – East Ojai Avenue (Ventura County)[1,2]
2010-2015

	2010	2011	2012	2013	2014	2015
Ozone – 1 Hour						
California Maximum Concentration (ppm)	0.099	0.101	0.099	0.101	0.087	0.086
# Days > State Standard	1	2	2	1	0	0
Ozone – 8 Hour						
California Maximum Concentration (ppm)	0.084	0.086	0.082	0.085	0.082	0.077
# Days > California Standard	10	12	24	5	9	7
National Maximum Concentration (ppm)	0.083	0.086	0.082	0.085	0.082	0.076
# Days > National Standard	7	4	9	2	4	1
Fine Particulate Matter ($PM_{2.5}$) – 24 Hour						
California Maximum Concentration ($\mu g/m^3$)	33.3	17.4	22.2	15.9	17.4	17.4
National Maximum Concentration ($\mu g/m^3$)	*	*	22.2	15.9	17.4	17.4
# Days > National Standard (measured[3])	*	*	0	0	0	0
Respirable Particulate Matter (PM_{10})[4] – 24 Hour						
California Maximum Concentration ($\mu g/m^3$)	44.9	27.7	17.4	*	*	*
# Days > California Standard (measured[3])	0	0	0	0	0	0
National Maximum Concentration ($\mu g/m^3$)	46.6	28.5	17.1	*	*	*
# Days > National Standard (measured[3])	0	0	0	0	0	0
Nitrogen Dioxide (NO_2) – 1 Hour						
California Maximum Concentration (ppb)	*No data collected at this monitoring station.*					
# Days > California Standard						
National Maximum Concentration (ppb)						
# Days > National Standard						

[1] Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; * = no data: data unavailable or insufficient for this location during time period.
[2] No monitoring station in Ventura County collects CO data.
[3] Measured days are those days that an actual measurement was greater than the level of the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standard (NAAQS). Estimated days are the estimated number of days that measurement would have exceeded the applicable CAAQS or NAAQS if measurements had been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.
[4] PM_{10} statistics may include data that are related to an exceptional event, which EPA defines as an event "for which the normal planning and regulatory process established by the Clean Air Act (CAA) is not appropriate" (CARB 2016c).
Source: California Air Resources Board (CARB). iADAM Top 4 Summary. http://www.arb.ca.gov/adam/topfour/topfour1.php, Accessed October 18, 2016c. Data compiled by Ascent Environmental 2016.

TABLE 8-11
SUMMARY OF AIR POLLUTANT CONCENTRATIONS
Simi Valley – Cochran Street (Ventura County)[1,2]
2010-2015

	2010	2011	2012	2013	2014	2015
Ozone – 1 Hour						
California Maximum Concentration (ppm)	0.0.95	0.108	0.106	0.104	0.97	0.096
# Days > State Standard	3	3	3	3	1	1
Ozone – 8 Hour						
California Maximum Concentration (ppm)	0.087	0.085	0.088	0.089	0.085	0.078
# Days > California Standard	15	13	14	11	16	14
National Maximum Concentration (ppm)	0.086	0.084	0.087	0.089	0.085	0.078
# Days > National Standard	8	7	14	4	7	2
Fine Particulate Matter ($PM_{2.5}$) – 24 Hour						
California Maximum Concentration (µg/m^3)	42.4	30.5	35.3	28.6	30.8	33.0
National Maximum Concentration (µg/m^3)	20.2	24.8	28.1	28.6	30.8	30.5
# Days > National Standard (measured[3])	0	0	0	0	0	0
Respirable Particulate Matter (PM_{10})[4] – 24 Hour						
California Maximum Concentration (µg/m^3)	35.2	45.8	37.9	122.3	57.2	62.8
# Days > California Standard (measured[3])	0	0	0	2	1	3
National Maximum Concentration (µg/m^3)	34.9	45.7	39.5	41.1	49.6	63.5
# Days > National Standard (measured[3])	0	0	0	0	0	0
Nitrogen Dioxide (NO_2) – 1 Hour						
California Maximum Concentration (ppb)	69	41	58	43	47	41
# Days > California Standard	0	0	0	0	0	0
National Maximum Concentration (ppb)	69.0	41.0	58.0	43.0	47.0	41.0
# Days > National Standard	0	0	0	0	0	0

[1] Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; * = no data: data unavailable or insufficient for this location during time period.

[2] No monitoring station in Ventura County collects CO data.

[3] Measured days are those days that an actual measurement was greater than the level of the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standard (NAAQS). Estimated days are the estimated number of days that measurement would have exceeded the applicable CAAQS or NAAQS if measurements had been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

[4] PM_{10} statistics may include data that are related to an exceptional event, which EPA defines as an event "for which the normal planning and regulatory process established by the Clean Air Act (CAA) is not appropriate" (CARB 2016c).

Source: California Air Resources Board (CARB). iADAM Top 4 Summary. http://www.arb.ca.gov/adam/topfour/topfour1.php, Accessed October 18, 2016c. Data compiled by Ascent Environmental 2016.

TABLE 8-12
SUMMARY OF AIR POLLUTANT CONCENTRATIONS
Thousand Oaks – Moorpark Road (Ventura County)[1,2]
2010-2015

	2010	2011	2012	2013	2014	2015
Ozone – 1 Hour						
California Maximum Concentration (ppm)	0.104	0.093	0.090	0.099	0.092	0.078
# Days > State Standard	2	0	0	1	0	0
Ozone – 8 Hour						
California Maximum Concentration (ppm)	0.091	0.079	0.076	0.081	0.082	0.069
# Days > California Standard	9	7	2	1	6	0
National Maximum Concentration (ppm)	0.090	0.079	0.075	0.081	0.081	0.069
# Days > National Standard	6	1	0	1	3	0
Fine Particulate Matter ($PM_{2.5}$) – 24 Hour						
California Maximum Concentration (µg/m^3)	21.7	27.5	41.9	28.7	33.1	32.2
National Maximum Concentration (µg/m^3)	21.7	19.7	41.9	28.7	33.1	32.2
# Days > National Standard (measured[2])	0	0	1	0	0	0
Respirable Particulate Matter (PM_{10})[4] – 24 Hour						
California Maximum Concentration (µg/m^3)	*No data collected at this monitoring station.*					
# Days > California Standard (measured[3])						
National Maximum Concentration (µg/m^3)						
# Days > National Standard (measured[3])						
Nitrogen Dioxide (NO_2) – 1 Hour						
California Maximum Concentration (ppb)	*No data collected at this monitoring station.*					
# Days > California Standard						
National Maximum Concentration (ppb)						
# Days > National Standard						

[1] Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; * = no data: data unavailable or insufficient for this location during time period.
[2] No monitoring station in Ventura County collects CO data.
[3] Measured days are those days that an actual measurement was greater than the level of the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standard (NAAQS). Estimated days are the estimated number of days that measurement would have exceeded the applicable CAAQS or NAAQS if measurements had been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.
[4] PM_{10} statistics may include data that are related to an exceptional event, which EPA defines as an event "for which the normal planning and regulatory process established by the Clean Air Act (CAA) is not appropriate" (CARB 2016c).
Source: California Air Resources Board (CARB). iADAM Top 4 Summary. http://www.arb.ca.gov/adam/topfour/topfour1.php, Accessed October 18, 2016c. Data compiled by Ascent Environmental 2016.

TABLE 8-13
SUMMARY OF AIR POLLUTANT CONCENTRATIONS
El Rio – Rio Mesa School #2 (Ventura County)[1,2]
2010-2015

	2010	2011	2012	2013	2014	2015
Ozone – 1 Hour						
California Maximum Concentration (ppm)	0.083	0.081	0.082	0.067	0.112	0.070
# Days > State Standard	0	0	0	0	1	0
Ozone – 8 Hour						
California Maximum Concentration (ppm)	0.073	0.069	0.065	0.063	0.077	0.066
# Days > California Standard	1	0	0	0	2	0
National Maximum Concentration (ppm)	0.072	0.068	0.065	0.062	0.077	0.066
# Days > National Standard	0	0	0	0	1	0
Fine Particulate Matter ($PM_{2.5}$) – 24 Hour						
California Maximum Concentration (µg/m^3)	27.8	28.7	30.8	22.2	22.2	25.5
National Maximum Concentration (µg/m^3)	21.4	18.3	30.8	19.9	22.3	25.5
# Days > National Standard (measured[3])	0	0	0	0	0	0
Respirable Particulate Matter (PM_{10})[4] – 24 Hour						
California Maximum Concentration (µg/m^3)	61.5	51.7	56.9	46.7	51.3	93.3
# Days > California Standard (measured[3])	1	1	1	4	7	6
National Maximum Concentration (µg/m^3)	59.9	50.6	56.3	45.9	51.1	92.0
# Days > National Standard (measured[3])	0	0	0	0	0	0
Nitrogen Dioxide (NO_2) – 1 Hour						
California Maximum Concentration (ppb)	60	90	57	40	39	36
# Days > California Standard	0	0	0	0	0	0
National Maximum Concentration (ppb)	60.0	90.0	57.0	40.0	39.0	36.0
# Days > National Standard	0	0	0	0	0	0

[1] Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; * = no data: data unavailable or insufficient for this location during time period.

[2] No monitoring station in Ventura County collects CO data.

[3] Measured days are those days that an actual measurement was greater than the level of the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standard (NAAQS). Estimated days are the estimated number of days that measurement would have exceeded the applicable CAAQS or NAAQS if measurements had been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

[4] PM_{10} statistics may include data that are related to an exceptional event, which EPA defines as an event "for which the normal planning and regulatory process established by the Clean Air Act (CAA) is not appropriate" (CARB 2016c).

Source: California Air Resources Board (CARB). iADAM Top 4 Summary. http://www.arb.ca.gov/adam/topfour/topfour1.php, Accessed October 18, 2016c. Data compiled by Ascent Environmental 2016.

TABLE 8-14
SUMMARY OF AIR POLLUTANT CONCENTRATIONS
Piru – Pacific (Ventura County)[1,2]
2010-2015

	2010	2011	2012	2013	2014	2015
Ozone – 1 Hour						
California Maximum Concentration (ppm)	0.087	0.100	0.087	0.092	0.097	0.085
# Days > State Standard	0	1	0	0	1	0
Ozone – 8 Hour						
California Maximum Concentration (ppm)	0.082	0.084	0.076	0.082	0.082	0.074
# Days > California Standard	4	6	14	3	9	4
National Maximum Concentration (ppm)	0.082	0.084	0.076	0.082	0.081	0.074
# Days > National Standard	1	2	1	2	5	0
Fine Particulate Matter ($PM_{2.5}$) – 24 Hour						
California Maximum Concentration (µg/m^3)	24.2	22.9	23.8	23.6	23.8	24.7
National Maximum Concentration (µg/m^3)	18.4	17.3	23.8	23.6	23.8	24.7
# Days > National Standard (measured[3])	0	0	0	0	0	0
Respirable Particulate Matter (PM_{10})[4] – 24 Hour						
California Maximum Concentration (µg/m^3)	*No data collected at this monitoring station.*					
# Days > California Standard (measured[3])						
National Maximum Concentration (µg/m^3)						
# Days > National Standard (measured[3])						
Nitrogen Dioxide (NO_2) – 1 Hour						
California Maximum Concentration (ppb)	*No data collected at this monitoring station.*					
# Days > California Standard						
National Maximum Concentration (ppb)						
# Days > National Standard						

[1] Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; * = no data: data unavailable or insufficient for this location during time period.
[2] No monitoring station in Ventura County collects CO data.
[3] Measured days are those days that an actual measurement was greater than the level of the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standard (NAAQS). Estimated days are the estimated number of days that measurement would have exceeded the applicable CAAQS or NAAQS if measurements had been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.
[4] PM_{10} statistics may include data that are related to an exceptional event, which EPA defines as an event "for which the normal planning and regulatory process established by the Clean Air Act (CAA) is not appropriate" (CARB 2016c).
Source: California Air Resources Board (CARB). iADAM Top 4 Summary. http://www.arb.ca.gov/adam/topfour/topfour1.php, Accessed October 18, 2016c. Data compiled by Ascent Environmental 2016.

Appendix 8D. Facilities Emitting Toxic Air Contaminants

TABLE 8-15 AB 2588 TOXIC AIR CONTAMINANT FACILITY INVENTORY Ventura County 2014			
Facility ID	**Name**	**Street**	**City**
Mapped Facilities			
5465	1ST NOOR LLC	1099 EAST LOS ANGELES AVENUE	SIMI VALLEY
7880	212 BODY AND RESTORATION	212 BRYANT ST.	OJAI
6436	7-ELEVEN #33159	1501 W. 5TH STREET	OXNARD
6433	7-ELEVEN #33162	609 RANCHO CONEJO BLVD.	THOUSAND OAKS
6414	7-ELEVEN #33513	903 VENTURA STREET	FILLMORE
6440	7-ELEVEN FACILITY #33399	2201 E. GONZALES RD.	OXNARD
5458	7-ELEVEN STORE #33567	255 N. CARMEN DRIVE	CAMARILLO
716	A & A AUTO COLLISION CENTER	730 MERCANTILE STREET	OXNARD
626	A & G AUTO PAINTER	142 NORTH 11TH STREET	SANTA PAULA
5529	A & I MINI MART & GAS	246 W. EL ROBLAR DR.	MEINERS OAKS
7612	A & R AUTO COLLISION CENTER	771 E. WOOLEY RD.	OXNARD
207	A-1 BODY SHOP	1691 LOS ANGELES AVE.	SATICOY
66	ABA ENERGY CORP	WOOLEY ROAD AND RICE AVENUE	OXNARD
5789	ADAR CHEVRON	983 E. HARVARD BLVD.	SANTA PAULA
5507	ADOLFO GAS & FOOD	4007 ADOLFO ROAD	CAMARILLO
7372	ADVANCED STRUCTURAL ALLOYS	950 RICHMOND AVE.	OXNARD
41	AERA ENERGY LLC	3382 NORTH VENTURA AVENUE	VENTURA
784	AFFORDABLE COLLISION CENTER	4773 ORTEGA STREET NO. A	VENTURA
1099	AHERN RENTALS	701 NORTH RICE AVENUE	OXNARD
1040	AIR NATIONAL GUARD 146 AW/EM	4146 NAVALAIR ROAD	PORT HUENEME
674	AL INNOCENTI	1175 INDUSTRIAL AVENUE	OXNARD
7401	ALEXANDER BUICK GMC CADILLAC/OXNARD	1600 AUTO CENTER DRIVE	OXNARD
606	ALLEN AUTO BODY SHOP, INC.	3400 SUNSET DRIVE	THOUSAND OAKS
5464	ALLIANCE	5803 EAST LOS ANGELES AVENUE	SIMI VALLEY
5599	ALLIANCE STATION	1861 N. VENTURA ROAD	OXNARD
26	ALUMINUM PRECISION PROD, INC	1001 MC WANE BLVD	OXNARD
7484	AMERICAN ANTIQUES & CLASSICS	1519 PALMA DRIVE	VENTURA
602	AMERICAN COLLISION CENTER	2957 LOS FELIZ DRIVE	THOUSAND OAKS
125	AMERON POLE PRODUCTS	1020 'B' STREET	FILLMORE
1381	AMGEN INC.	ONE AMGEN CENTER DR 19-2-B	THOUSAND OAKS

TABLE 8-15
AB 2588 TOXIC AIR CONTAMINANT FACILITY INVENTORY
Ventura County
2014

Facility ID	Name	Street	City
845	ANACAPA BERRY FARMS	4300 ETTING RD.	OXNARD
426	ANACAPAMIDDLE SCHOOL	100 SOUTH MILLS ROAD	VENTURA
1144	ANGELUS BLOCK COMPANY	4575 VINEYARD AV	OXNARD
5782	ANITA SPIRIT	415 E. THOMPSON BLVD.	VENTURA
52	ANTERRA ENERGY SERVICES INC.	1933 EAST WOOLEY ROADD	OXNARD
6444	APRO #10	108 COCHRAN ST.	SIMI VALLEY
797	AQUA CREATIONS	1607 #D LOS ANGELES AVE.	VENTURA
5665	ARCO #42054	2124 EAST HARBOR BLVD.	VENTURA
6450	ARCO AM/PM	5669 VALENTINE RD	VENTURA
6429	ARCO AM/PM #06516	3907 E. TELEGRAPH ROAD	PIRU
5485	ARCO FACILITY #83345	650 N. ARNEILL ROAD	CAMARILLO
5492	ARCO SMOG PROS	600 MOORPARK RD.	THOUSAND OAKS
6386	ARCO/AMPM	500 S. VICTORIA AVE.	OXNARD
244	ARCTURUS MANUFACTURING CO	6001 ARCTURUS ROAD	OXNARD
8086	ARMACEL ARMOR CORP	2255 PLEASANT VALLEY ROAD	CAMARILLO
5616	ARNEILL CHEVRON AND CARWASH	255 ARNEILL ROAD	CAMARILLO
9	ARNOLD MAGNETICS CORP	841 AVENIDA ACASO	CAMARILLO
7781	ASPEN CENTER	2750 N. SYCAMORE DR.	SIMI VALLEY
560	ASPEN HELICOPTER	2899 WEST FIFTH STREET	OXNARD
95	ASSOC. READY MIX CONCRETE	3555 VINEYARD AVE	OXNARD
7675	ASTRIUM SERVICES GOV'T, INC	7676 PINE GROVE RD.	SANTA PAULA
691	ASTROFOAM MOLDING COMPANY INC.	4117 CALLE TESORO	CAMARILLO
7512	AT&T	233 A ST.	FILLMORE
7916	AT&T (NBVC-PORT HUENEME)	BUILDING #1524	PORT HUENEME
7604	AT&T (SIMICA11-KD138)	2692 E. LOS ANGELES AVE.	SIMI VALLEY
7413	AT&T OXNARD	1050 SOUTH C STREET	OXNARD
7741	AURORA VISTA DEL MAR HOSPITAL	801 SENECA ST.	VENTURA
572	AUTO BODY INTERNATIONAL	932 EAST 5TH STREET	OXNARD
604	AUTO BODY UNLIMITED	4610 LOS ANGELES AVE #C	SIMI VALLEY
881	AUTO COLLISION CENTER, INC.	299 E THOUSAND OAKS BLVD.	THOUSAND OAKS
6287	AUTO FUELS INC	2460 AUTO CENTER DRIVE	OXNARD
7511	AUTO IMAGE RESTORATIONS & CUSTOMS	1183 CALLE SUERTE	CAMARILLO
5511	AUTO TECH GAS BUSTER MART	2157 LAS POSAS ROAD	CAMARILLO

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Facility ID	Name	Street	City
774	AVENUE BODY SHOP	378 NORTH VENTURA AVENUE	VENTURA
717	AZTLAN BODY SHOP	1520 CYPRESS STREET	OXNARD
575	B & B AUTO BODY	3043 THOUSAND OAKS BLVD.	THOUSAND OAKS
1078	BAXTER BIOSCIENCE	1700 RANCHO CONEJO BOULEVARD	THOUSAND OAKS
7279	BECKER BODY SHOP	1850 SUNKIST CIRCLE #A	OXNARD
1368	BELL POWDER COATING	4747 MCGRATH STREET	VENTURA
433	BELLPORT ANACAPA MARINE SERVICES	3203 S. VICTORIA AVE.	OXNARD
7047	BESTFORMS INC	1135 AVENIDA ACASO	CAMARILLO
7888	BLENDING STATION #1	251 S. HAYES AVE.	OXNARD
7869	BLENDING STATION #3	1700 SOLAR DRIVE	OXNARD
7897	BLENDING STATION #4	3637 N. ROSE AVE.	OXNARD
7921	BLENDING STATION #5	980 E. PLEASANT VALLEY RD.	OXNARD
488	BMW - VEHICLE PREPARATION CENTER	5650 ARCTURUS ROAD	OXNARD
1084	BODYMASTER U.S.A.	6401 VENTURA BOULEVARD	VENTURA
1028	BODYTECH LTD.	2920 SEABORG AVENUE	VENTURA
7978	BONES FAB	373 S. DAWSON DR.	CAMARILLO
5455	BORCHARD ARCO AM/PM	2305 BORCHARD RD.	NEWBURY PARK
5656	BORCHARD CHEVRON	2290 W. BORCHARD RD.	NEWBURY PARK
598	BRUE'S BODY SHOP	207 BRYANT STREET	OJAI
427	BUENA HIGHSCHOOL	5670 TELEGRAPH ROAD	VENTURA
578	BUENA VISTA COLLISION CTR OF VEN	3900 MARKET ST	VENTURA
1076	BUMP & SHINE	1544 MORSE AVENUE #C	VENTURA
7019	C.I COMPOSITES	1114 EAST FIFTH STREET	OXNARD
590	CALIBER BODYWORKS, INC.	6500 LELAND STREET	VENTURA
7475	CALIBER COLLISION CENTER	1101 STURGIS RD.	OXNARD
638	CALIBER COLLISION CENTERS	390 EAST EASY STREET	SIMI VALLEY
5672	CALIFORNIA CHEVRON	507 E THOMPSON BLVD.	VENTURA
7464	CALIFORNIA LUTHERAN UNIVERSITY	60 WEST OLSEN ROAD #3200	THOUSAND OAKS
8000	CALIFORNIA PROP. HOLDINGS III, LLC	4885 CALLE ALTO	CAMARILLO
984	CALIFORNIA RESOURCES PRODUCTION CORPORATION	BARDSDALE FIELD	FILLMORE

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Facility ID	Name	Street	City
330	CALIFORNIA RESOURCES PRODUCTION CORPORATION	3501 SANTA CLARA/FREIDRICH LSE	OXNARD
77	CALIFORNIA RESOURCES PRODUCTION CORPORATION	OAK PARK & BIG MOUNTAIN FIELD	SIMI VALLEY
48	CALIFORNIA RESOURCES PRODUCTION CORPORATION	5713 W. GONZALES RD.	OXNARD
53	CALIFORNIA RESOURCES PRODUCTION CR, S. MOUTAIN & W. MOUNTAIN	19424 SOUTH MOUNTAIN ROAD	SANTA PAULA
7097	CALIFORNIA WOOD RECYCLING	2801 MADERA ROAD	SIMI VALLEY
7843	CALLEGUAS MWD LAKE BARD WATER PLANT	2100 OLSEN RD.	THOUSAND OAKS
25	CALMAT CO.	6029 VINEYARD AVE.	OXNARD
92	CALMAT COMPANY	5596 BENNETT RD.	SIMI VALLEY
6	CALMATCOMPANY	6029 VINEYARD AVENUE	SATICOY
7469	CAMARILLO AUTO BODY	695 VIA ALONDRA	CAMARILLO
4047	CAMARILLO CLEANERS	52 ELM ST.	CAMARILLO
7959	CAMARILLO HUB	1925 DAILY DR.	CAMARILLO
445	CAMARILLO SANITARY DISTRICT	150 HOWARD RD	CAMARILLO
7944	CAMPBELL'S CUSTOM PAINT & BODY	619 FITCH AVE #4	MOORPARK
6441	CAMPUS PLAZA SHELL	6599 COLLINS DRIVE	MOORPARK
5284	CARDLOCK FUEL SYSTEM, INC	75 WEST EASY STREET	SIMI VALLEY
5666	CARMEN AUTO CENTER	256 CARMEN DRIVE	CAMARILLO
831	CASTLE OF MARBLE	1607 LOS ANGELES AVE	SATICOY
1425	CATHEDRAL MORTUARY ASSOCIATES	1810 SUNKIST CR #7	OXNARD
30	CEMEX, CALIF. AGGREGATES, INC.	9035 ROSELAND AVE.	MOORPARK
31	CEMEX, CONCRETE PRODUCTION	9035 ROSELAND AVE.	MOORPARK
7137	CEMEX,CONCRETE PROD INC.	1430 SANTA CLARA STREET	SANTA PAULA
5822	CENTRAL PLAZA UNION 76	700 N. ARNEILL RD.	CAMARILLO
7513	CERES, INC.	1535 RANCHO CONEJO BLVD.	THOUSAND OAKS
7068	CHANNEL ISLAND AUTO BODY	640 MOUNTAIN VIEW AVE #B	OXNARD
1391	CHANNEL ISLAND BOAT YARD	3615 VICTORIA AV	OXNARD
74	CHANNEL ISLANDS AVIATION	CAMARILLO AIRPORT FUEL FARM	CAMARILLO
5452	CHEVRON	877 S. VENTURA RD.	OXNARD
6257	CHEVRON #200209	4870 SANTA ROSA ROAD	CAMARILLO

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Facility ID	Name	Street	City
5673	CHEVRON #9-0576	920 S. SEAWARD AVE.	VENTURA
5745	CHEVRON #9-1024	2568 SYCAMORE DRIVE	SIMI VALLEY
5767	CHEVRON #9-7983	704 VENTURA STREET	FILLMORE
5764	CHEVRON CARWASH	1196 E. LOS ANGELES AVE.	SIMI VALLEY
7191	CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY	SCHOOL CANYON REMEDIATION	VENTURA
6422	CHEVRON SS#20-8020	1900 N. ROSE AVE.	OXNARD
5413	CHEVRON STATIONS INC. #202037	2395 ERRINGER ROAD	SIMI VALLEY
7692	CHUMASH PUMP STATION	2960 CHUMASH AVE.	SIMI VALLEY
1267	CI POWER COGENERATION PLANT	1947 WEST POTRERO ROAD	CAMARILLO
6418	CIRCLE K # 2709483	490 S. VICTORIA AVE	OXNARD
5467	CIRCLE K #2211092	855 NORTH WENDY DRIVE	NEWBURY PARK
5514	CIRCLE K #2211126	942 WESTLAKE BLVD.	WESTLAKE VILLAGE
5462	CIRCLE K #2211127	2340 N. KUEHNER DRIVE	SIMI VALLEY
5460	CIRCLE K #2211185	5195 EAST COCHRAN	SIMI VALLEY
5650	CIRCLE K #2211246	45 N. REINO ROAD	NEWBURY PARK
5419	CIRCLE K #2211330	3500 E. MAIN STREET	VENTURA
6406	CIRCLE K #2709460	2200 N. ROSE AVE.	OXNARD
6186	CIRCLE K STORES SITE #01045	11408 VENTURA AVENUE	OJAI
6203	CIRCLE K STORES SITE #05238	765 W. HARVARD BOULEVARD	SANTA PAULA
586	CITY AUTO BODY	2045 EASY WAY	SIMI VALLEY
576	CITY AUTO BODY	765 EAST EASY STREET	SIMI VALLEY
1401	CITY OF SIMI VALLEY PUBLIC SER	2929 TAPO CANYON ROAD	SIMI VALLEY
7657	CITY OF SIMI VALLEY TRANSIT	490 W. LOS ANGELES AVE.	SIMI VALLEY
180	CLARK ENGINEERING CONST INC.	2235 NORTH VENTURA AVENUE	VENTURA
4002	CLEANING & LAUNDRY BY FRANK	518 EAST MAIN STREET	SANTA PAULA
1164	CMP ONE-B & B BAILEY LEASE	12516 CREEK RD	OJAI
7245	COACHCRAFT	302 ORANGE GROVE AVENUE	FILLMORE
7082	COAST INDEX CO. INC.	850 LAWRENCE DR	NEWBURY PARK
5699	COLLEGE SHELL	4111 TELEGRAPH ROAD	VENTURA
4008	COLLEGE SQUARE CLEANERS	94 N. ASHWOOD AVE.	VENTURA
1483	COMMERCIAL AUTO BODY	1237 COMMERCIAL AVENUE	OXNARD
123	COMMUNITY MEMORIAL HOSPITAL	2800 LOMA VISTA & BRENT	VENTURA
564	CONDE'S AUTO BODY & PAINT	1221 COMMERCIAL AVENUE	OXNARD
72	CONEJO MTN. MEMORIAL PARK	2052 HOWARD	CAMARILLO

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Facility ID	Name	Street	City
607	CONEJO VALLEY AUTO BODY	102 CUNNINGHAM ROAD	THOUSAND OAKS
387	CONOCOPHILLIPS	SANTA PAULA PUMP STATION	SANTA PAULA
7	CONROCK CO.-REDI MIX	1000' EAST OF LA STREET	MOORPARK
5564	CONVENIENCE RETAILERS, LLC	1445 W. CHANNEL ISLANDS BLVD.	OXNARD
6413	COSTCO WHOLESALE CORP. #128	2660 PARK CENTER DRIVE	SIMI VALLEY
6399	COSTCO WHOLESALE CORP. #420	2001 E. VENTURA BLVD.	OXNARD
7400	COUNTY OF VENTURA	9550 LOS ANGELES AVE.	MOORPARK
210	CRAZY 'J' OIL COMPANY	11955 OJAI RD./KOENIGSTEIN RD/	SANTA PAULA
621	CREATIVE WOODWORKS	387 NORTH ZACHARY ST.	MOORPARK
82	CRIMSON PIPELINE HARBOR STATION	1200 SPINNAKER DRIVE	VENTURA
38	CRIMSON PIPELINE, LP	3504 NORTH VENTURA AVENUE	VENTURA
836	CROCKETT GRAPHICS	980 AVENIDA ACASO	CAMARILLO
7131	CROP PRODUCTION SERVICES	4075 DUFAU ROAD	OXNARD
7528	CSU - CHANNEL ISLANDS	ONE UNIVERSITY DR.	CAMARILLO
103	CUSTOM INDUSTRIAL FINISHES	5711 PERKINS RD	OXNARD
7243	CUSTOM PRINTING	2001 CABOT PLACE	OXNARD
7306	CUSTOM REFINISHERS	954 E. THOMPSON BLVD.	VENTURA
7868	DAEDALUS AUTO BODY SHOP	373 S. DAWSON DR., UNIT 4N	CAMARILLO
5643	DALEX CHEVRON	172 N. MOORPARK RD.	THOUSAND OAKS
650	DATA EXCHANGE CORPORATION	3600 VIA PESCADOR	CAMARILLO
5715	DAVE'S	1404 ANCHORS WAY	VENTURA
6417	DAWSON CARWASH	2911 PETIT ST.	CAMARILLO
4039	DIAMOND CLEANERS	361 AVE DE LOS ARBOLES	THOUSAND OAKS
1100	DIP N STRIP	512 DAWSON DRIVE	CAMARILLO
7256	DIVERSIFIED MINERALS	1135 EAST WOOLEY ROAD	OXNARD
597	DJ'S AUTO COLLISION CENTER	1501 SOUTH PINE STREET	OXNARD
622	DON & SONS BODY & PAINT	660 MOUNTAIN VIEW AVENUE	OXNARD
970	DOS CUADRAS OFFSHORE RESOURCES, L.	5775 W. PACIFIC COAST HIGHWAY	VENTURA
507	DRISCOLL STRAWBERRY ASSOCIATES	3939 E HUENEME RD	OXNARD
1478	E & I PAINT AND BODY	260 WEST WOOLEY RD.	OXNARD
214	E.F. OXNARD LLC	550 DIAZ AVENUE	OXNARD
7009	E.J. HARRISON & SONS, INC.	1589 LIRIO AVENUE	SATICOY
1255	EARL SCHEIB AUTO PAINT	141 E WOOLEY RD	OXNARD
789	EDDIE'S AUTO BODY AND PAINT	1275 SOUTH OXNARD BLVD	OXNARD

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Facility ID	Name	Street	City
7677	EDUCATION SERVICE CENTER (ESC)	255 W. STANLEY AVE.	VENTURA
7660	EL RIO CO. GC-515	1630 VENTURA BLVD.	OXNARD
6408	EL RIO VINEYARD SHELL & FOODMART	2778 VINEYARD AVENUE	OXNARD
7360	ELECTRA CRAFT	2251 TOWNSGATE ROAD	WESTLAKE VILLAGE
7431	ELITE METAL FINISHING	540 SPECTRUM CIRCLE	OXNARD
1280	ELLWOOD PIPELINE 12	301 WEST FRONT STREET	VENTURA
1278	ELLWOOD PIPELINE AVE. METERS	REAR 191 OTTOWA STREET	VENTURA
1279	ELLWOOD PIPELINE UNION MARINE	1200 SPINNAKER DR.	VENTURA
7353	EMERITUS AT CAMARILLO	6000 SANTA ROSA ROAD	CAMRILLO
771	EPR COLLISION	852 VIA ALONDRA	CAMARILLO
651	ERG INTERNATIONAL	361 NORTH BERNOULLI CIRCLE	OXNARD
4130	EVERGREEN CLEANERS	3900 THOUSAND OAKS BLVD.	WESTLAKE VILLAGE
1324	FACILITY 400 NATIONAL WAY	400 NATIONAL WAY	SIMI VALLEY
7290	FAUSSET PRINTING LLC	1799 EASTMAN AVENUE	VENTURA
722	FENDER MENDER BODY SHOP	1555 MORSE AVE UNITS E & F	VENTURA
6400	FILLMORE SHELL FOOD MART	1107 W. VENTURA ST.	FILLMORE
7560	FILLMORE TELEPORT	33 E. TELEGRAPH RD.	FILLMORE
7303	FINE LINE PRECAST INCORPORATED	215 ROCKLITE RD.	VENTURA
7814	FIRE STATION #45	790 PCIFIC AVE.	SIMI VALLEY
859	FIRST COLLISION CENTER	1001 COCHRAN STREET	SIMI VALLEY
5690	FLEET VENTURA	1457 FLEET STREET	VENTURA
7113	FLUID INK TECHNOLOGY	5360 NORTH COMMERCE AVE.	MOORPARK
601	FORD OF VENTURA BODY SHOP	3680 MARKET STREET	VENTURA
4133	FOUR SEASONS CLEANERS	1746 S. VICTORIA AVE #A	VENTURA
4018	FOXY FASHION CLEANERS, LLC	2361 MICHAEL DRIVE	NEWBURY PARK
5503	FRED'S GAS & FOOD MART	3211 SAVIERS RD.	OXNARD
1321	G & H TECHNOLOGY	750 WEST VENTURA BLVD.	CAMARILLO, CA
5439	G & M OIL CO./CHEVRON #256728	2314 E. THOMPSON BLVD.	VENTURA
339	GENERAL MAGNAPLATE CALIF.	2707 PALMA DR.	VENTURA
569	GENERAL PETROLEUM	3815 VINEYARD AVE. BULK PLANT	OXNARD
7086	GI RUBBISH COMPANY	195 W. LOS ANGELES AVENUE	SIMI VALLEY
671	GIBBS INTERNATIONAL TRUCK	2201 EAST VENTURA BLVD	OXNARD
7018	GILL'S ONIONS	1051 SOUTH PACIFIC AVE.	OXNARD
1338	GILLIBRAND INDUSTRIAL SAND, INC.	5810 EAST BENNETT RD	SIMI VALLEY

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Facility ID	Name	Street	City
7407	GLOBAL AUTO PROCESSING SERVICES, INC.	USN-CBC PATTERSON RD. & 32ND AVE	PORT HUENEME
706	GM CELES BODY SHOP	238 CENTRAL AVENUE	FILLMORE
755	GM CUSTOM AUTO BODY	33 FIX WAY	VENTURA
785	GOLD COAST ACURA	3195 PERKIN AVENUE	VENTURA
6431	GOLDEN STATE PETROLEUM	55 HALLOCK DRIVE	SANTA PAULA
458	GOOCH & HOUSEGO (CALIFORNIA) LLC	554 FLYNN AVENUE	MOORPARK
4060	GREEN OAKS CLEANERS	3745 E. THOUSAND OAKS BLVD.	THOUSAND OAKS
7444	GRIMALDO ENTERPRISES	233 PALM STREET	FILLMORE
5442	GSE 76 VENTU PARK	575 N. VENTU PARK RD.	NEWBURY PARK
1439	GTS CUSTOMS	495 E. EASY STREET UNIT A	SIMI VALLEY
5477	H.D.O.C. #106	774 NORTH VENTURA AVENUE	VENTURA
7226	HAAS AUTOMATION	2800 STURGIS ROAD	OXNARD
7419	HAH MARINE PROPERTIES	3037 WEST 5TH STREET, UNIT B	OXNARD
5541	HAMPSHIRE ROAD SHELL	395 HAMPSHIRE ROAD	THOUSAND OAKS
1174	HANSON LAB FRNTR INDSTRS INC.	814 MITCHELL ROAD	NEWBURY PARK
5716	HARBOR MOBIL & SUBWAY	2121 EAST HARBOR BLVD	VENTURA
631	HARRY'S AUTO COLLISION GROUP	3610 THOUSAND OAKS BLVD	THOUSAND OAKS
5766	HD FUEL	2399 TAPO ST.	SIMI VALLEY
5743	HDOC #093	3402 VINEYARD AVE.	OXNARD
7854	HILL CANYON WASTEWATER TREATMENT PLANT	9600 SANTA ROSA ROAD	CAMARILLO
150	HILL CYN WASTEWATER TREATMENT PLANT	9600 SANTA ROSA ROAD	CAMARILLO
7779	HILTON GARDEN INN OXNARD/CAMARILLO	2000 SOLAR DR.	OXNARD
5617	HILU CHEVRON	522 NORTH LAS POSAS ROAD	CAMARILLO
8132	HOUWELINGS NURSERIES	645 WEST LAGUNA ROAD	CAMARILLO
618	HUB AUTO BODY	1401 LIRIO STREET	SATICOY
676	HUNTER OIL & GAS INC.	4100 W GONZALES ROAD	OXNARD
242	INDUSTRIAL ELECTRIC MOTORS	811 MERCANTILE STREET	OXNARD
1109	INTL COFFEE & TEA INC.	4580 CALLE ALTO	CAMARILLO
7678	IRON HORSE CUSTOM FACTORY	290 EASY ST., NO. 5	SIMI VALLEY
121	IVY LAWN MEMORIAL PARK	5400 VALENTINE ROAD	VENTURA

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Facility ID	Name	Street	City
7443	J & C AUTO BODY	6680 CRESCENT STREET	VENTURA
5862	JAMES E. CLARK II CARDLOCK	18115 EAST TELEGRAPH ROAD	SANTA PAULA
7277	JANO GRAPHICS	4893 MCGRATH STREET	VENTURA
599	JAZZ AUTO BODY	1030 DONLON AVENUE	OXNARD
5418	JENDA INC.	3995 THOUSAND OAKS BLVD.	WESTLAKE VILLAGE
7497	JENNIFER KALSTROM	1570 CALLENS RD.	VENTURA
5740	JOE'S GAS & SMOG	1720 S. OXNARD BLVD.	OXNARD
6426	JOHNSON DRIVE CARWASH & GAS	2757 JOHNSON DRIVE	VENTURA
6228	JOHNSON OIL CORP.	6762 NORTH BANK DRIVE	VENTURA
5463	KAM'S CANYON MOBIL SERVICE CENTER	2500 TAPO CANYON ROAD	SIMI VALLEY
5686	KASSRA INC.	2292 THOMPSON BLVD.	VENTURA
1387	KAVLICO CORPORATION	14501 PRINCETON AVENUE	MOORPARK
609	KEMP FORD	3810 THOUSAND OAKS BLVD.	THOUSAND OAKS
603	KIRBY OLDSMOBILE-JEEP/EAGLE	6424 LELAND STREET	VENTURA
7697	LA-SIMI VALLEY MSG SITE	4585 RUNWAY ST.	SIMI VALLEY
6281	LAKE CASITAS MARINA INC.	11311 SANTA ANA ROAD	VENTURA
6419	LAS POSAS CAR WASH	100 S. LAS POSAS RD.	CAMARILLO
5472	LAS POSAS MOBIL, INC.	501 LAS POSAS ROAD	CAMARILLO
5584	LASHKARI'S SERVICE STATION	105 NORTH OXNARD BLVD.	OXNARD
164	LAWRENCE BUSINESS CENTER	2628 LAVERY CT, #408	NEWBURY PARK
700	LEO'S BODY SHOP	3925 NORTH VENTURA AVE	VENTURA
4128	LEONARD'S CLEANERS #4	706 LINDERO CANYON RD., #764	OAK PARK
7596	LIFT STATION 29	NW CORNER OF HEMLOCK & PATTERSON	OXNARD
4108	LINCOLN OAKS CLEANERS	140 HILLCREST DRIVE NO. 109	THOUSAND OAKS
411	LOS CERRITOS INTERMEDIATE SCHOOL	2100 AVENIDA DE LAS FLORES	THOUSAND OAKS
144	LOS ROBLES HOSPITAL	215 WEST JANSS ROAD	THOUSAND OAKS
7849	LOS ROBLES SURGICENTER	2190 LYNN RD., STE. 100	THOUSAND OAKS
7200	LOW-COST AUTO BODY	1564 MORSE AVENUE, UNIT J/K	VENTURA
1326	MAACO AUTO PAINTING	1571 GOODYEAR AV	VENTURA
7117	MAACO COLLISION REPAIR & AUTO PAINT	1100 COMMERCIAL AVENUE	OXNARD
790	MACVALLEY OIL COMPANY	100 DEL NORTE BLVD.	OXNARD

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Facility ID	Name	Street	City
596	MALABAR INTERNATIONAL	220 WEST LOS ANGELES AVE	SIMI VALLEY
13	MANDALAY GENERATING STATION	393 NORTH HARBOR BLVD	OXNARD
1017	MANDALAY ONSHORE FACILITY	201 NORTH HARBOR BLVD	OXNARD
6347	MARKET STREET CARWASH & GAS	4411 MARKET STREET	VENTURA
7391	MARTINEZ BODY SHOP	1205 N. OXNARD BLVD	OXNARD
7264	MAXIM DOUGLAS	1726 NORTH VENTURA ROAD	VENTURA
7347	MAZ GRAPHIC & PRINTING	1355 LAWRENCE DR.-#111	NEWBURY PARK
7508	MEDI.COM	241 LOMBARD ST.	THOUSAND OAKS
7810	MEGGITT SAFETY SYSTEMS, INC.	1955 SURVEYOR/1915 VOYAGER AVE.	SIMI VALLEY
5468	MICHAEL E. PLY HAMPSHIRE 76	3102 EAST THOUSAND OAKS BLVD.	THOUSAND OAKS
781	MIKE'S AUTO BODY	3170 LOS FELIZ DRIVE NO. A	THOUSAND OAKS
837	MISSION LINEN SUPPLY	505 MAULHARDT AVE	OXNARD
816	MISSION OAKS AUTO BODY	575 SOUTH DAWSON DR NO. 5	CAMARILLO
8008	MISSION ROCK ROAD ASPHALT MIXING FACILITY	999 MISSION ROCK ROAD	SANTA PAULA
5668	MOORPARK CHEVRON	502 LOS ANGELES AVENUE	MOORPARK
4086	MOORPARK CLEANERS	530 E. NEW LOS ANGELES AVE. #118	MOORPARK
6342	MOORPARK PETROLEUM	50 W. NEW LOS ANGELES AVE.	MOORPARK
5667	MOORPARK SERVICE INC.	13800 PRINCETON AVE.	MOORPARK
7621	MOORPARK YARD	7150 WALNUT CANYON RD.	MOORPARK
7639	MT. MCCOY COMMUNICATION FACILITY	1195 1/2 PRESIDENTIAL DR.	SIMI VALLEY
8023	MUVICO THOUSAND OAKS	166 W. HILLCREST DR.	THOUSAND OAKS
1454	NANOFILM	2641 TOWNGATE RD., STE. 100	WESTLAKE VILLAGE, CA
1383	NAUMANN DRILL SITE	3140 ETTING ROAD	OXNARD
1207	NAVAL BASE VENTURA COUNTY	OUTLYING LANDING FIELD	SAN NICOLAS ISLAND
1006	NAVAL BASE VENTURA COUNTY	NCBC - PORT HUENEME SITE	PORT HUENEME
997	NAVAL BASE VENTURA COUNTY	POINT MUGU SITE	POINT MUGU
1430	NEW ERA BODY SHOP	700 MOUNTAIN VIEW NO. D	OXNARD
707	NEW IMAGE BODY SHOP	860 CORPORATION STREET	SANTA PAULA
157	NEW INDY OXNARD, LLC	5936 PERKINS ROAD	OXNARD
779	NEW VEHICLE AUTO BODY & PAINT	2368 N. OXNARD BLVD #8 & 9	OXNARD

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Facility ID	Name	Street	City
5448	NEWBURY 76	848 WENDY DRIVE.	NEWBURY PARK
178	NEWBURY PARK HIGH SCHOOL	456 REINO ROAD	NEWBURY PARK
574	NEWCASTLE MOTORS	4320 EAST LOS ANGELES AVE.	SIMI VALLEY
796	NEXT AUTO BODY SHOP	1378 LOS ANGELES AVE F & G	SIMI VALLEY
5568	NISSIM TOVIM, INC.	1400 S. OXNARD BLVD.	OXNARD
7982	NORDSTROM-THE OAKS	350 W. HILLCREST DRIVE	THOUSAND OAKS
7728	NORTH OXNARD HEALTH CARE SERVICES	2240 E. GONZALES RD.	OXNARD
613	NORTH RANCH BODY CRAFT	3075 LOS FELIZ DRIVE	THOUSAND OAKS
4070	OAK PARK CLEANERS	634 LINDERO CANYON ROAD	AGOURA
5528	OAK VIEW SHELL	905 VENTURA AVE.	OAK VIEW
5639	OAKS SHELL	56 E. THOUSAND OAKS BLVD.	THOUSAND OAKS
1446	OCEAN BODY SHOP	2500 CHANNEL DRIVE	VENTURA
6056	OFFSHORE GAS	1050S.VENTURA RD.	OXNARD
173	OILFIELD ELECTRIC COMPANY	1801 NORTH VENTURA AVE	VENTURA
5808	OJAI CHEVRON #9-0478	360 EAST OJAI AVE.	OJAI
7838	OJAI GARDENS NURSING CENTER	601 N. MONTGOMERY ST.	OJAI
5805	OJAI GAS INC.	1124 MARICOPA HWY	OJAI
361	OJAI OIL COMPANY	SOUTH MOUNTAIN FIELD	SANTA PAULA
362	OJAI OIL COMPANY	OJAI FEE LEASE	SANTA PAULA
4021	OJAI VALLEY CLEANERS	345 E. OJAI AVENUE	OJAI
509	OJAI VALLEY INN & SPA	905 COUNTRY CLUB ROAD	OJAI
7737	ONE BAXTER WAY	1 BAXTER WAY	WESTLAKE VILLAGE
65	ORMOND BEACH GENERATING STATION	6635 SOUTH EDISON DRIVE	OXNARD
7322	ORTEGA'S COLLISION CENTER	1742 MORSE AVENUE	VENTURA
460	OSI ELECTRONICS	2385 E. PLEASANT VALLEY ROAD	CAMARILLO
5445	OXNARD ARCO	700 SOUTH OXNARD BLVD	OXNARD
5592	OXNARD ARCO AM/PM	1132 S. OXNARD BOULEVARD	OXNARD
1043	OXNARD COLLEGE	4000 SOUTH ROSE AVENUE	OXNARD
5548	OXNARD EZ GAS	303 N. OXNARD BLVD.	OXNARD
7061	OXNARD HIGH SCHOOL	3400 WEST GONZALES RD	OXNARD
161	OXNARD LEMON CO.	2001 SUNKIST CIRCLE	OXNARD
7607	OXNARD RDC	300 KINETIC DRIVE	OXNARD
6430	OXNARD SERVICE STATION LLC	2850 S. ROSE AVENUE	OXNARD

TABLE 8-15
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Facility ID	Name	Street	City
5588	OXNARD ULTRAMAR CARWASH	655 SOUTH VENTURA ROAD	OXNARD
5402	OXNARD VINEYARD CHEVRON	2251 N. OXNARD BLVD.	OXNARD
1137	OXNARD WASTEWATER TRTMNT PLANT	6001 S. PERKINS RD.	OXNARD
1300	PAC FOUNDRIES	705 INDUSTRIAL AVENUE	PORT HUENEME
581	PACIFIC COAST AUTO BODY, INC.	5162 GOLDMAN AVENUE	MOORPARK
489	PACIFIC ROCK, INC.	1000 SOUTH PANCHO RD.	CAMARILLO
7755	PACIFIC SHORES HOSPITAL	2130 VENTURA ROAD	OXNARD
879	PACIFIC VEHICLE PROCESSORS	5601 EDISON DRIVE	OXNARD
7349	PACIFICA HIGH SCHOOL	600 EAST GONZALES ROAD	OXNARD
7890	PALMERS CUSTOM COLLISION	1031 AVENIDA ACASO	CAMARILLO
7862	PALMS @ THE BONAVENTURE	111 WELLS RD.	VENTURA
583	PARADISE CHEVROLET	6350 LELAND ST	VENTURA
4129	PARK PLACE CLEANERS	501 SOUTH REINO ROAD,SUITE C	NEWBURY PARK
7324	PARKER ADVANCED FILTRATION DIVISION	2340 EASTMAN AVE.	OXNARD
6286	PECK OIL CORP	806 W. HARVARD BLVD.	SANTA PAULA
464	PENTAIR POOL PRODUCTS	10951 WEST LOS ANGELES AVE.	MOORPARK
470	PEPSI BOTTLING GROUP INC.	4375 NORTH VENTURA AVENUE	VENTURA
446	PERFORMANCE MATERIALS CORPN	1150 CALLE SUERTE	CAMARILLO
6205	PLAZA FOOD MART	1695 ROYAL AVE.	SIMI VALLEY
254	PLEASANT VALLEY HOSPITAL	2309 ANTONIO AVENUE	CAMARILLO
5480	POOLE OIL COMPANY	3885 VINEYARD AVENUE	OXNARD
227	PRE-CON PRODUCTS LTD	240 WEST LOS ANGELES AVE.	SIMI VALLEY
568	PRECISION TAG AND LABEL CORP.	4735 EAST INDUSTRIAL STREET #4C	SIMI VALLEY
589	PREMIER COACH	3053 LOS FELIZ DRIVE	THOUSAND OAKS 91362
7085	PRESTIGE AUTO WORKS	4121 N. SOUTH BANK ROAD	OXNARD
7236	PRINT CITY	1661 PACIFIC AVE. STE. 20	OXNARD
7278	PRINT N' IMAGE	4565 INDUSTRIAL STREET #7A & #8D	SIMI VALLEY
15	PROCTER & GAMBLE PAPER PRODUCTS CO.	800 NORTH RICE AVENUE	OXNARD
6192	PROUD AUTO	4676 ADOLFO RD.	CAMARILLO
1340	PTI TECHNOLOGIES INC.	501 DEL NORTE BLVD.	OXNARD

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Facility ID	Name	Street	City
7525	PUMP STATION #5	91 WOOD RD.	CAMARILLO
1097	QUINN COMPANY INC.	801 DEL NORTE BLVD.	OXNARD
7461	R & J AUTO BODY & PAINT	3120 PASEO MERCADO	OXNARD
5623	RAFI'S CHEVRON #6	1152 AVENIDA DE LOS ARBOLES	THOUSAND OAKS
402	RANCHO SIMI PARK SWIMMING POOL	1765 ROYAL AVE.	SIMI VALLEY
7852	RECON TO GO	613 FITCH AVE, UNIT #3	MOORPARK
413	REDWOOD INTERMEDIATE SCHOOL	233 GAINSBOROUGH ROAD	THOUSAND OAKS
7910	REGIONAL OCCUPATIONAL PROGRAM	465 HORIZON CIRCLE	CAMARILLO
8012	REXFORD INDUSTRIAL	3001, 3175, 3233 E. MISSION OAKS BLVD.	CAMARILLO
1241	RICHARDSON RANCH LSE	SOUTH MOUNTAIN OIL FIELD	SANTA PAULA
7536	RINCON	10151 OCEAN VIEW RD.	LA CONCHITA
7083	RINCON PIPELINE STATION	5777 W. PACIFIC COAST HIGHWAY	VENTURA
516	RIO SCHOOL DISTRICT	2715 VINEYARD AVE.	OXNARD
7909	RIO VISTA INTERMEDIATE SCHOOL	3050 THAMES RIVER DR.	OXNARD
7661	RIVERPARK JOINT-USE FIRE STATION	3301 N. VINEYARD AVE.	OXNARD
5498	RJR ENTER. DBA SIMI VALLEY ARCO	25 W. TIERRA REJADA RD.	SIMI VALLEY
812	ROBERT M. HADLEY CO. INC.	4054-B TRANSPORT STREET	VENTURA, CA
1256	ROCKWELL INT'L SCIENCE COMPANYLLC	1049 CAMINO DOS RIOS	THOUSAND OAKS
5631	ROLLING OAKS 76	293 S. MOORPARK RD.	THOUSAND OAKS
6437	ROSE & 5TH INC.	501 S. ROSE AVE.	OXNARD
6387	ROSE SHELL	1901 N. ROSE AVE.	OXNARD
660	ROTO FORM	1041 E SANTA BARBARA ST	SANTA PAULA
712	ROYAL COATINGS	3960 ROYAL AVENUE	SIMI VALLEY
5516	S & G ENERGY, INC.	445 VENTU PARK ROAD	NEWBURY PARK
5546	S & S CHEVRON	2901 SAVIERS ROAD	OXNARD
5457	S&G ENERGY, INC.	4735 PLEASANT VALLEY ROAD	CAMARILLO
6282	SAIF'S FOOD MART	423 VENTURA STREET	FILLMORE
171	SANTA CLARA WASTE WATER CO.	815 MISSION ROCK ROAD	SANTA PAULA
1132	SANTA PAULA AIRPORT ASSOC	28 WRIGHT TAXI	SANTA PAULA
718	SANTA PAULA CHEVROLET, INC.	101 WEST HARVARD BOULEVARD	SANTA PAULA

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Facility ID	Name	Street	City
138	SANTA PAULA MEMORIAL HOSPITAL	825 NORTH TENTH STREET	SANTA PAULA
6423	SANTA PAULA SHELL	100 S. HALLOCK DRIVE	SANTA PAULA
8044	SANTA PAULA WATER RECLAMATION FACILITY	921 CORPORATION STREET	SANTA PAULA
7435	SANTOS TRUCK AND AUTO REPAIR	3431 GALAXY PLACE	OXNARD
721	SATICOY AUTO BODY & TRUCK	1322 LOS ANGELES AVENUE	SATICOY
114	SATICOY FOODS CORP	554 S TODD ROAD	SANTA PAULA
130	SATICOY LEMON ASSOCIATION	103 NORTH PECK ROAD	SANTA PAULA
263	SATICOY LEMON ASSOCIATION	600 E. THIRD ST	OXNARD
155	SATICOY LEMON ASSOCIATION	7560 BRISTOL ROAD	VENTURA
7806	SATICOY PAINT BOOTH SITE #11	11201-A1 RIVERBANK DR.	SATICOY
7415	SATICOY WASTEWATER TREATMENT PLANT	1419 LIRIO AVENUE	VENTURA
5497	SAVIERS 76	3650 SAVIERS RD	OXNARD
7090	SCAT MAINTENANCE FACILITIES	301 EAST THIRD STREET	OXNARD
5725	SEAWARD GAS STATION & MINI MART	779 SOUTH SEAWARD	VENTURA
5682	SEAWARD INC.	2099 E. HARBOR BLVD.	VENTURA
7341	SEMINIS VEGETABLE SEEDS, INC.	2700 CAMINO DEL SOL	OXNARD
7451	SEMTECH CORPORATION	200 FLYNN ROAD	CAMARILLO
6397	SHELL #68511	107 W. VENTURA BLVD.	CAMARILLO
5453	SHELL #68564	301 W. NEW LOS ANGELES AVE.	MOORPARK
5558	SHELL #68579	1440 CHANNEL ISLANDS BLVD.	OXNARD
5534	SHELL #68580	2460 VINEYARD AVE.	OXNARD
5770	SHELL #68621	2390 TAPO ST.	SIMI VALLEY
5696	SHELL #68632	7841 TELEPHONE ROAD	VENTURA
5526	SHELL CAMARILLO	1604 VENTURA BLVD.	CAMARILLO
1498	SHERWIN D. YOELIN/HILL LEASE	SOUTH MOUNTAIN - LEMON ROAD	SANTA PAULA
7309	SIGNATURE GRAPHICS	4531 MARKET ST, SUITE H	VENTURA
547	SILVAS OIL CO. INC.	1230 EAST FIFTH STREET	OXNARD
6449	SILVAS OIL COMPANY, INC.	6417 VENTURA BLVD.	VENTURA
6280	SILVAS OIL COMPANY, INC.	2191 N. VENTURA AVENUE	VENTURA
5735	SILVAS OIL COMPANY, INC.	50 JULIAN STREET	VENTURA
4007	SILVER OAKS CLEANERS	2772 TOWNSGATE ROAD NO. F	WESTLAKE VILLAGE

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Facility ID	Name	Street	City
4119	SIMI CLEANERS	1834 COCHRAN STREET	SIMI VALLEY
5757	SIMI GAS	501 LOS ANGELES AVE.	SIMI VALLEY
7861	SIMI HILLS	950 SUNSET GARDEN LANE	SIMI VALLEY
5763	SIMI SHELL FOOD MART #136115	1120 LOS ANGELES AVE.	SIMI VALLEY
747	SIMI VALLEY AUTO BODY	725 EAST EASY STREET	SIMI VALLEY
7691	SIMI VALLEY CARE CENTER	5270 E. LOS ANGELES AVE.	SIMI VALLEY
6197	SIMI VALLEY CIRCLE K	510 E. LOS ANGELES AVE.	SIMI VALLEY
174	SIMI VALLEY HOSPITAL ADVENTIST HEALTH	2975 N SYCAMORE DRIVE	SIMI VALLEY
7963	SIMI VALLEY HUB	485 EASY STREET	SIMI VALLEY
1395	SIMI VALLEY LANDFILL	2801 MADERA ROAD	SIMI VALLEY
5758	SIMI VALLEY UNION 76	2706 E. LOS ANGELES AVE.	SIMI VALLEY
165	SIMI VLY CNTY SANITATION	600 WEST LOS ANGELES AVE	SIMI VALLEY
4049	SINALOA CLEANERS	660 LOS ANGELES AVENUE	SIMI VALLEY
7046	SIR SPEEDY	97 DAILY DRIVE	CAMARILLO
1291	SKYWORKS SOLUTIONS, INC.	2427 WEST HILLCREST DR	NEWBURY PARK
7578	SOUTH MOUNTAIN EARTH STATION	5990 SOLANO VERDE DRIVE	SOMIS
61	SOUTHERN CALIF GAS COMPANY	1555 NORTH OLIVE STREET	VENTURA
635	SOUTHERN CALIFORNIA EDISON CO.	3589 FOOTHILL DRIVE	THOUSAND OAKS
858	SOUTHERN CALIFORNIA EDISON CO.	10060 TELEGRAPH ROAD	VENTURA
1219	SPATZ LABORATORIES	1600 WESTAR DRIVE	OXNARD
276	SPRAGUES' ROCK AND SAND CO	5400 BENNET ROAD	SIMI VALLEY
4037	SPRING CLEANERS	475 W. CHANNEL ISLANDS BLVD., #102	PORT HUENEME
7538	ST. JOHN'S OUTPATIENT SURGERY CTR.	1700 N. ROSE AVE., SUITE 100	OXNARD
820	ST. JOHN'S REGIONAL MEDICAL CT	1600 NORTH ROSE AVE.	OXNARD
1200	ST. JOHN'S SEMINARY	5012 SEMINARY ROAD	CAMARILLO
657	STAR AUTO BODY SHOP INC.	1856 LOS ANGELES AVE	SIMI VALLEY
1365	STAR PAINT & BODY	700 EAST FIFTH STREET	OXNARD
6196	STEARNS ALLIANCE GAS MINIMART	2404 STEARNS ST.	SIMI VALLEY
5769	STEARNS PETROLEUM INC.	2605 STEARNS STREET	SIMI VALLEY
7638	STOW COMMUNICATION FACILITY	YOSEMITE AVE. & BARNARD ST.	SIMI VALLEY
7313	STREAMLINE DESIGN & SILKSCREEN, INC.	1299 WELLS ROAD	VENTURA

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Facility ID	Name	Street	City
7253	SUN AIR JETS LLC	CAMARILLO AIRPORT FUEL FARM	CAMARILLO
620	SUPERIOR COLLISION CENTER	2780 WEST WOOLEY ROAD	OXNARD
7362	SUPERIOR COLLISION CENTER	260 LAMBERT STREET - UNIT P	OXNARD
580	SUPERTECH PAINT & BODY	240 NORTH VENTURA AVENUE	VENTURA
5537	SWANK'S CHEVRON	2449 STEARNS STREET	SIMI VALLEY
5747	SYCAMORE SHELL	2405 N. SYCAMORE DR.	SIMI VALLEY
6106	SYCAMORE UNION 76	2383 SYCAMORE AVENUE	SIMI VALLEY
746	T&S AUTO REFINISHING	3800 MARKET STREET NO. E	VENTURA
6401	T.O. OIL, INC, DBA T.O. CHEVRON	3505 MOORPARK ROAD	THOUSAND OAKS
291	TAPO ROCK & SAND PRODUCTS	5023 TAPO CYN ROAD	SIMI VALLEY
5703	TBA ENTERPRISES INC	7700 TELEGRAPH ROAD	VENTURA
1311	TECHNICOLOR HOME ENTERTAINMENT SERVICES	3233 EAST MISSION OAKS BLVD.	CAMARILLO
109	TELAIR INTERNATIONAL	3303 OLD CONEJO ROAD	NEWBURY PARK
7382	TELEDYNE IMAGING SENSORS	5212 VERDUGO AVE	CAMARILLO
7015	TELEDYNE OPTIMUM OPTICAL SYSTEMS	4153 CALLE TESORO	CAMARILLO
5691	TELEGRAPH CHEVRON	3477 TELEGRAPH ROAD	VENTURA
5701	TELEPHONE ROAD CHEVRON	9460 TELEPHONE ROAD	VENTURA
4079	TEMPO CLEANERS	3949 COCHRAN STREET	SIMI VALLEY
12	TENBY PRODUCTION FACILITY	3455 EAST FIFTH STREET	OXNARD
5785	TEXACO FOOD MART	206 E. HARVARD BLVD.	SANTA PAULA
7074	TFP DATA SYSTEMS	3451 JUPITER COURT	OXNARD
224	THE BODY SHOP	2463 TAPO STREET	SIMI VALLEY
7898	THE BONAVENTURE	10949 TELEGRAPH RD.	VENTURA
4068	THE CLEANING STORE	51 W. MAIND ST., STE. L	VENTURA
1270	THE J.M. SMUCKER COMPANY	800 COMMERCIAL AVENUE	OXNARD
7062	THE PRINTING PRESS	2524 TOWNSGATE ROAD SUITE E	WESTLAKE VILLAGE
7325	THE SPOT SHOP AUTO BODY	18201 EAST TELEGRAPH ROAD	SANTA PAULA
1179	THE TERMO COMPANY	SULPHUR CREST LEASE	SANTA PAULA
7156	THE TICKET FACTORY	310 E. EASY STREET	SIMI VALLEY
1455	THE WOOD REVIVER	4445 COCHRAN ST	SIMI VALLEY
7588	THOMAS AQUINAS COLLEGE	1000 N. OJAI ROAD	SANTA PAULA
5416	THOUSAND OAKS CHEVRON	1201 E. THOUSAND OAKS BLVD.	THOUSAND OAKS
133	THOUSAND OAKS HIGH SCHOOL	2323 MOORPARK ROAD	THOUSAND OAKS

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Facility ID	Name	Street	City
7532	THOUSAND OAKS SURGICAL HOSPITAL	401 ROLLING OAKS DR.	THOUSAND OAKS
644	THOUSAND OAKS TOYOTA & SCION	2401 THOUSAND OAKS BLVD	THOUSAND OAKS
5611	THOUSAND OAKS UNION 76	2861 MOORPARK RD.	THOUSAND OAKS
5501	THOUSAND OAKS VALERO	2473 THOUSAND OAKS BLVD	THOUSAND OAKS
848	THOUSAND OAKS/MUNI SERVICE CENTER	1993 RANCHO CONEJO ROAD	THOUSAND OAKS
4109	THRIFTY CLEANERS	370 NORTH LANTANA STREET	CAMARILLO
7593	TIMELESS KUSTOMS	2255 E. PLEASANT VALLEY RD., UNIT H	CAMARILLO
587	TIP TOP BODY & PAINT SHOP	145 NORTH OLIVE STREET	VENTURA
1299	TODD RANCH JAIL	600 SOUTH TODD ROAD	SANTA PAULA
7340	TOLAND ROAD LANDFILL	3500 TOLAND ROAD	SANTA PAULA
752	TONY'S BODY SHOP	497 LAMBERT STREET	OXNARD
5614	TR OIL	3050 E. THOUSAND OAKS BLVD.	THOUSAND OAKS
666	TRI-COUNTY AUTO BODY & PAINT	6353 VENTURA BOULEVARD #36	VENTURA
843	TRI-COUNTY FIBERGLASS	3510 ARUNDELL CIRCLE	VENTURA
36	TRINITY ESC	17410 E LOCKWOOD VALLEY RD	FRAZIER PARK
7196	TURTLE STORAGE LTD.	401 S. BECKWITH RD.	SANTA PAULA
1173	U-RENT INC.	1387 LOS ANGELES AVENUE	SATICOY
1187	U-RENT INC.	92 NORTH DAWSON DRIVE	CAMARILLO
6411	UNION 76	550 W. LOS ANGELES AVE.	MOORPARK
5795	UNIVERSAL VICTORIA INC.	2440 S. VICTORIA AVE.	VENTURA
7858	UNIVERSITY VILLAGE THOUSAND OAKS	3557 CAMPUS DRIVE	THOUSAND OAKS
6389	USA GASOLINE #135721	305 CARMEN DR.	CAMARILLO
5719	USA GASOLINE #63036	887 N. VENTURA AVE.	VENTURA
5669	USA GASOLINE #63207	795 VENTURA AVENUE	OAK VIEW
5430	USA GASOLINE #63208	1501 W. GONZALES RD.	OXNARD
5435	USA GASOLINE #63211	1715 THOUSAND OAKS BLVD.	THOUSAND OAKS
5443	USA GASOLINE #63215	706 LOS ANGELES AVE.	SIMI VALLEY
5441	USA GASOLINE #63216	1356 ERRINGER RD.	SIMI VALLEY
5434	USA GASOLINE #63217	2211 TAPO STREET	SIMI VALLEY
5252	USA GASOLINE #68115	4418 E. CENTRAL AVE.	CAMARILLO
5765	USA GASOLINE #68135	660 VENTURA ST.	FILLMORE

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Facility ID	Name	Street	City
6116	USA GASOLINE #68174	518 RANCHO CONEJO BLVD.	NEWBURY PARK
5820	USA GASOLINE #68182	1790 E. PLEASANT VALLEY RD.	OXNARD
5866	USA GASOLINE #68183	5040 SAVIERS ROAD	OXNARD
5799	USA GASOLINE #68189	2651 N. VENTURA ROAD	PORT HUENEME
5523	USA GASOLINE #68224	1640 N. MOORPARK RD.	THOUSAND OAKS
5812	USA GASOLINE #68232	2661 E. THOMPSON BLVD.	VENTURA
5710	USA GASOLINE #68233	1717 S. VICTORIA AVE.	VENTURA
1389	UWCD/EL RIO BOOSTER PLANT	3561 ROSE AVENUE	OXNARD
1143	V3 CORPORATION	200 NORTH ELEVAR ST.	OXNARD
7915	VACA ENERGY, LLC/HUNSUCKER LEASE	4407 STURGIS ROAD	OXNARD
5491	VALERO	2689 N. MOORPARK RD.	THOUSAND OAKS
5502	VALERO CORNER STATION #3751	117 E. VENTURA ST.	FILLMORE
5505	VALERO CORNER STORE #3754	616 E. OJAI AVENUE	OJAI
5437	VALERO OF SANTA PAULA	145 S. 10TH ST.	SANTA PAULA
6434	VALLEY FUEL SUPPLY, INC.	200 DEL NORTE BOULEVARD	OXNARD
6427	VALLEY SHELL	1220 SYCAMORE DRIVE	SIMI VALLEY
7283	VANGUARD PRINTING	220 BERNOULLI CIRCLE	OXNARD
5797	VENTURA 76	11008 CITRUS DRIVE (WELLS)	VENTURA
628	VENTURA CO - COUNTY COMPLEX	800 S VICTORIA AVE	VENTURA
143	VENTURA CO - REG MED CENTER	3291 LOMA VISTA ROAD	VENTURA
7685	VENTURA CO. FAIRGROUNDS	10 W. HARBOR BLVD.	VENTURA
278	VENTURA COASTAL CORPORATION	2325 VISTA DEL MAR DR.	VENTURA
126	VENTURA COLLEGE	4667 TELEGRAPH ROAD	VENTURA
5604	VENTURA COUNTY CI HARBOR FUEL DOCK	3855 PELICAN WAY	OXNARD
7067	VENTURA COUNTY STAR	151 FACTORY STORES DRIVE	CAMARILLO
1202	VENTURA CREMATORY-TED MAYR'S	3150 LOMA VISTA ROAD	VENTURA
7772	VENTURA ENDOSCOPY CENTER	5810 RALSTON ST.	VENTURA
6393	VENTURA GAS & MINI MART	2599 EAST MAIN ST.	VENTURA
1083	VENTURA HARBOR BOATYARD INC.	1415 SPINNAKER DRIVE	VENTURA
253	VENTURA HARBOR MARINA & YACHT YARD	1644 ANCHORS WAY DR.	VENTURA
432	VENTURA HIGHSCHOOL	2155 EAST MAIN STREET	VENTURA
294	VENTURA MARRIOTT	2055 E. HARBOR BLVD.	VENTURA

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Facility ID	Name	Street	City
262	VENTURA PACIFIC COMPANY	600 N HARRISON (PLANT 1)	OXNARD
1139	VENTURA PORT DISTRICT	1603 ANCHORS WAY DRIVE	VENTURA
5544	VENTURA ROAD CHEVRON #9-7423	1860 N. VENTURA ROAD	OXNARD
1212	VENTURA U-CART	3348 VENTURA ROAD	VENTURA
5495	VENTURA VALERO	11005 CITRUS DR.	VENTURA
1377	VENTURA WASTEWATER PLANT	1400 SPINNAKER DRIVE	VENTURA
1341	VERIZON CAMARILLO PLANT YARD	201 FLYNN ROAD	CAMARILLO
7848	VICTORIA CARE CENTER	5440 RALSTON ST.	VENTURA
5700	VICTORIA CHEVRON	2199 S. VICTORIA AVENUE	VENTURA
5694	VICTORIA OIL CORP. #255523	1121 S. VICTORIA AVE.	VENTURA
6438	VINEYARD 76	2851 E. VINEYARD AVE.	OXNARD
310	VINTAGE PETROLEUM INC.	3824 GUIBERSON ROAD-GAS PL	PIRU
594	VIRGIL'S AUTO BODY	3479 OLD CONEJO RD #E11	NEWBURY PARK
7232	VISTA LANDSCAPE LIGHTING	1625 NORTH SURVEYOR AVE.	SIMI VALLEY
1399	VRSD OXNARD LANDFILLS	COASTAL LANDFILL 4105 GONZALES ROAD	OXNARD
152	W.L. RUBOTTOM COMPANY	280 WEST LEWIS STREET	VENTURA
1426	WATERWAY PLASTICS	2200 E STURGIS RD	OXNARD
35	WAYNE J. SAND AND GRAVEL INC.	9455 BUENA VISTA ST.	MOORPARK
7629	WELL NO. 15 & BOOSTER PUMP STATION	7680 GRIMES CANYON ROAD	MOORPARK
5630	WENDY AUTO CENTER INC.	420 E. THOUSAND OAKS BLVD.	THOUSAND OAKS
4081	WENDY CLEANERS	711 WENDY DR.	NEWBURY PARK
5652	WENDY DRIVE CHEVRON	2870 CAMINO DOS RIOS	NEWBURY PARK
75	WESTERN CARDINAL SELF SERVE	CAMARILLO AIRPORT	CAMARILLO
7296	WESTERN CARDINAL, INC.	CAMARILLO AIRPORT FUEL FARM	CAMARILLO
817	WESTERN SAW INC	3200 CAMINO DEL SOL	OXNARD
5403	WESTLAKE CHEVRON	225 HAMPSHIRE RD.	WESTLAKE VILLAGE
417	WESTLAKE HIGHSCHOOL	100 NORTH LAKEVIEW CANYON ROAD	WESTLAKE
4135	WESTLAKE VILLAGE CLEANERS	2785 AGOURA ROAD	WESTLAKE VILLAGE
473	WHOLESOME HARVEST BAKING, INC.	2701 STATHAM BLVD.	OXNARD
7299	WILWOOD ENGINEERING	4700 CALLE BOLERO	CAMARILLO
4127	WOOD RANCH CLEANERS	1252 MADERA ROAD, SUITE A-2	SIMI VALLEY
4118	WOODSIDE TAILOR & CLEANERS	4521 PLEASANT VALLEY ROAD	CAMARILLO

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Facility ID	**Name**	**Street**	**City**
5408	WOOLEY GAS FAAL CORPORATION	1060 SOUTH J STREET	OXNARD
1394	WORLD CLASS PAINT & BODY	2180 FIRST ST.	SIMI VALLEY
6338	YOSEMITE SHELL	2627 YOSEMITE AVE.	SIM VALLEY
5494	ZAITOON INC	605 S MILLS RD	VENTURA
UN-MAPPED FACILITIES[1]			
884	ADAMS PETROLEUM AGUIRRE LEASE	DEL VALLE FIELD	PIRU
813	AMPLE RESOURCES, INC.	TEMESCAL FIELD-LAKE PIRU	PIRU
1162	ASTARTA ALEXANDER OIL COMPANY	SISAR-SILVERTHREAD FIELD	SANTA PAULA
1396	B.J. SERVICES CO. USA/VENTURA	PORTABLE OILFIELD ENGINES	VENTURA COUNTY
1146	BARNETT (C. R.) TANK FARM	SIMI OILFIELD PATTERSON RANCH	SIMI VALLEY
337	BERCO OIL COMPANY, LLC NORTH TAPO LEASE	TAPO CANYON OFF HIGHWAY 126	PIRU
42	CALIFORNIA RESOURCES PRODUCTION CORPORATION	SATICOY FIELD LEASES	SANTA PAULA
939	CALIFORNIA RESOURCES PRODUCTION CORPORATION	CLARK & WEST LSES-TIMBER CANYN	SANTA PAULA
396	CALIFORNIA RESOURCES PRODUCTION CORPORATION	STATE-LEASE & COLONIA UNIT	OXNARD
58	CALIFORNIA RESOURCES PRODUCTION CORPORATION	OAKRIDGE, TAPO RIDGE/CANYON, TORREY & SANTA SUSANA	PIRU
54	CALIFORNIA RESOURCES PRODUCTION CORPORATION	SHIELLS CANYON GAS PLANT	FILLMORE
8	CALIFORNIA RESOURCES PRODUCTION CORPORATION	RINCON AREA LEASES	VENTURA
4	CALIFORNIA RESOURCES PRODUCTION CORPORATION	OJAI OIL LEASES	SANTA PAULA
670	CALTRANS COMMERCE (SPECIAL CR)	PORTABLE ROAD STRIPING	VENTURA COUNTY
1226	CASITAS MUNICIPAL WATER DIST.	RINCON PUMPING PLANT	OJAI
331	CBASE CORPORATION	BLACK LSE-RAMONA FLD	PIRU
319	CECIL BASENBERG	RAMONA FIELD AGUIRRE LEASE	PIRU
934	CHEMASSIST, L.L.C.	BASOLO LEASE - 100 GUIBERSON RD.	FILLMORE
335	CHEMASSIST, LLC	LYNN LEASE-SESPE FIELD	FILLMORE
1118	CONCORDIA RESOURCES INC.	CHAFFEE CNYN PRODCTN SITE	FILLMORE
386	CRIMSON PIPELINE, L.P.	PIRU DUMP STATION	PIRU
385	CRIMSON PIPELINE, LP	TORREY CANYON PUMP STATION	PIRU

TABLE 8-15
AB 2588 TOXIC AIR CONTAMINANT FACILITY INVENTORY
Ventura County
2014

Facility ID	Name	Street	City
363	DCOR, LLC	HOPPER CYN FLD	FILLMORE
336	H.L. HALL & SONS	CENTRAL LEASE-SESPE CYN	FILLMORE
1238	HAMMOND CANYON #2, INC.	ALTA CANADA LARGA CANYON ROAD	VENTURA
493	HAMP FEE LEASE	SILVERTHREAD AREA/OJAI FIELD	SANTA PAULA
1248	HERLEY KELLEY COMPANY	ORDUNA LSE-RAMONA OIL FIELD	PIRU
392	JORO INC.	CALUMET CYN TANK FARM / WELLS	FILLMORE
33	LA CONCHITA OIL & GAS PLANT	7459 W. PACIFIC COAST HIGHWAY	VENTURA
301	LBTH INC.	HOBSON LEASE-PADRE JUAN CANYON	VENTURA
1266	MASON CONSTUCTION COMPANY	VENTURA, CHANNEL IS., PRT HUEN	VENTURA
1264	MAVERICK OIL	SCHROEDER-SULPHUR MOUNTAIN RD.	OJAI
326	MIRADA PETROLEUM INC.	KERN LEASE	PIRU
381	MIRADA PETROLEUM INC.	HARTH LEASE	SANTA PAULA
959	MIRADA PETROLEUM INC.	HOLSER LSE-HOLSER CYN FLD	PIRU
1171	MIRADA PETROLEUM, INC.	HARTMAN LEASE-EAST SULPHUR MOUTAIN ROAD	SANTA PAULA
7383	MIRADA PETROLEUM, INC.	M.P. LANE FEDERAL KOENIGSTEIN RD	OJAI
259	NATIONALREADY MIX	13950 E. LOS ANGELES AVE.	MOORPARK
7430	OJAI FEE POWERS LEASE	UPPER OJAI AREA - HWY 150	SANTA PAULA
1252	PEAK OPERATOR II, LLC	LIOYD-BUTLER LEASE	SATICOY
1494	PLATFORM GAIL	OCS LEASE P-0205	VENTURA
1492	PLATFORM GILDA	OCS LEASE 0216/SANTA CLARA FLD	VENTURA
1491	PLATFORM GINA	OCS LEASE 0202/PT. HUENEME FLD	VENTURA
1493	PLATFORM GRACE	OCS LEASE P0217	VENTURA
1030	PRE RESOURCES, LLC	SESPE 14 TANK BTTRY	FILLMORE
1296	QUATAL CANYON GYPSUM MINE	4219 QUATAL CANYON RD.	OJAI
314	RES TECH	WELDON CANYON LOC.-OJAI FIELD	OAK VIEW

TABLE 8-15
AB 2588 TOXIC AIR CONTAMINANT FACILITY INVENTORY
Ventura County
2014

Facility ID	Name	Street	City
486	RES-TECH. INC.	FREEMAN LEASE SULPHUR MT ROAD	OJAI
1151	RIDGEWAY CORPORATION	TIMBER CANYON OILFIELD	SANTA PAULA
3	RINCON ISLAND LTD. PARTNERSHIP	RINCON ISLAND LEASES	VENTURA
7738	ROBLES FISH PASSAGE	NORTH END OF RICE ROAD	MEINERS OAKS
1242	ROSE KATHERINE STONE	COUGAR LEASE	OJAI
232	SANTA SUSANA FIELD LABORATORY	TOP OF WOOLSEY CANYON ROAD	SIMI HILLS
990	SENECA RESOURCES CORPORATION	SESPE COMPRESSOR PLANT	FILLMORE
370	SENECA RESOURCES CORPORATION	MEL BLANC ET AL- SESPE FIELD	FILLMORE
322	SENECA RESOURCES CORPORATION	SESPE FIELD LEASES	FILLMORE
366	SENECA RESOURCES CORPORATION	ROSSI ET AL LEASES - SESPE FIELD	FILLMORE
191	SILVER EXPLORATION CO. INC.	UPPER OJAI LEASE	SANTA PAULA
481	SOUTH FORK RANCH, LLC	C&H CONVERSE LEASE	SANTA PAULA
955	SOUTH MOUNTAIN RESOURCES, LLC	AGNEW LSE SISAR / SILVER STRND	OJAI
7143	SOUTH MOUNTAIN RESOURCES, LLC	ADP FEDERAL & NESBITT LEASES	SANTA PAULA
378	T.B. PROPERTIES	MERCHANTS & NELLIE BELL LEASES	FILLMORE
1147	TEG OIL & GAS USA, INC.	SLOAN RANCH-EUREKA CYN	PIRU
390	THE TERMO COMPANY	SOUTH MOUNTAIN LEASES	SOMIS
1047	THOMPSON OIL COMPANY	KAISER - AETNA LSE.	MOORPARK
332	THOMPSON OIL COMPANY INC.	BLACK LSE-RAMONA FIELD	PIRU
50	THOMPSON OIL COMPANY, INC./BURSON & ELKINS LEASES	BURSON & ELKINS LSE-BRARDSDL	FILLMORE
7173	THOMPSON OIL COMPANYINC.	SILVERTHREAD LEASE	SANTA PAULA
1273	UPLAND ROCK	1565 TELEGRAPH ROAD	FILLMORE
1021	VAQUERO ENERGY	ROBERTSON LSE-BARDSDALE FIELD	FILLMORE
365	VAQUERO ENERGY INC.	HOPPER RANCH-SESPE FIELD	FILLMORE
1020	VAQUERO ENERGY INC.	ELKINS LSE-BARDSDALE FIELDS	FILLMORE

[1] Some facilities could not be mapped due to incomplete or incorrect addresses.

Source: California Air Resources Board (CARB). AB 2588 Air Toxics "Hot Spots" Program. http://www.arb.ca.gov/ab2588/ab2588.htm, Accessed March 22, 2016d.