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# 7

## 7. Hazards and Safety Element

Ventura County is in a region that is prone to a variety of natural disasters, including wildfires, coastal flooding and flood hazards, and debris flows. Flood, wildfire, and sea level rise events associated with climate change are likely to increase in frequency and severity in the region. In addition to natural hazards, Ventura County also has a number of transportation facilities and military installations that increase risks for human-induced hazards, such as aircraft accidents, hazardous material spills, and exposure to excessive noise. While it is impossible to completely avoid natural and human-induced hazards, this Element establishes goals and policies to protect life, minimize property damage, and maintain or restore services during future disasters and emergencies. This policy framework will help to reduce hazards and ensure public safety in Ventura County.

This Element, along with other Elements in the General Plan, includes policies and programs that will help the County adapt to climate change impacts and increase the County’s resilience. A detailed discussion of the County’s vulnerability to climate change, along with a summary of which policies and programs in various Elements are part of the County’s adaptation strategy in response to such effects, is included in Appendix B, Climate Change.

Goals, policies, and implementation programs in this element are organized under the following headings:

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The Hazards and Safety Element includes a series of diagrams (i.e., maps) to depict applicable hazard areas described in the policies. These are as follows:

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## 7.1 Wildfire Hazards

Portions of Ventura County are at very high risk for wildfire with high concentrations on the northern coast leading inland between Santa Paula and Ojai. Additional high fire Hazard Severity Zones, as designated by the California Department of Forestry and Fire Protection (CAL FIRE), occur along the southern coast and continue inland toward Simi Valley. Figures 7-3 and 7-4 show areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. The maps distinguish these Fire Hazard Severity Zones based on local or State responsibility. Local responsibility areas generally include cities, cultivated agriculture lands, and portions of the desert. Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, counties, and by Cal FIRE under contract to the local government. State responsibility area is a legal term defining the area where the state has financial responsibility for wildfire protection. Incorporated cities and federal ownership are not included. The prevention and suppression of fires in all areas that are not state responsibility areas are primarily the responsibility of federal or local agencies. Additional fire hazard areas are identified on the Ventura County Fire Department Hazardous Fire Areas maps.

Given rising temperatures combined with changes in precipitation patterns, the county may continue to experience an increase in wildfire frequency and intensity as fuel loads become drier and more flammable. Wildfire also presents other health-related impacts associated with emissions of air pollutants during the combustion of organic fuels and other materials, such as particulates (soot and smoke), carbon monoxide, nitrogen oxides, and other substances that can be widely dispersed through a region and degrade air quality. Exposure to these air pollutants can cause acute (short-term) and exacerbate chronic (long-term) respiratory and cardiovascular illnesses, especially in vulnerable populations such as the elderly, children, and agricultural and outdoor workers.

Additionally, wildfire can cause direct and indirect damage to utilities and communication infrastructure, roads, and other public infrastructure. Direct exposure to fire can sever transmission lines, and heat and smoke can affect transmission capacity. Furthermore, fires can cause acute damage to soil structure and moisture retention thus increasing susceptibility to erosion or landslides. Following the Thomas Fire in December 2017, Santa Barbara County, which is located directly northwest of Ventura County, experienced powerful debris flows following a severe rain event. The level of precipitation coupled with the exposed landscape resulted in debris flows that caused the deaths of 22 people.

This section focuses on protecting against and preparing for potential wildfire hazards as well as restoration efforts for previously burned areas.



*Goals, policies, and implementation programs focusing on access and evacuation during a wildfire disaster are in Section 7.12, Emergency Response of this Element, and fire protection are in Chapter 5, Public Facilities, Services, and Infrastructure Element.*

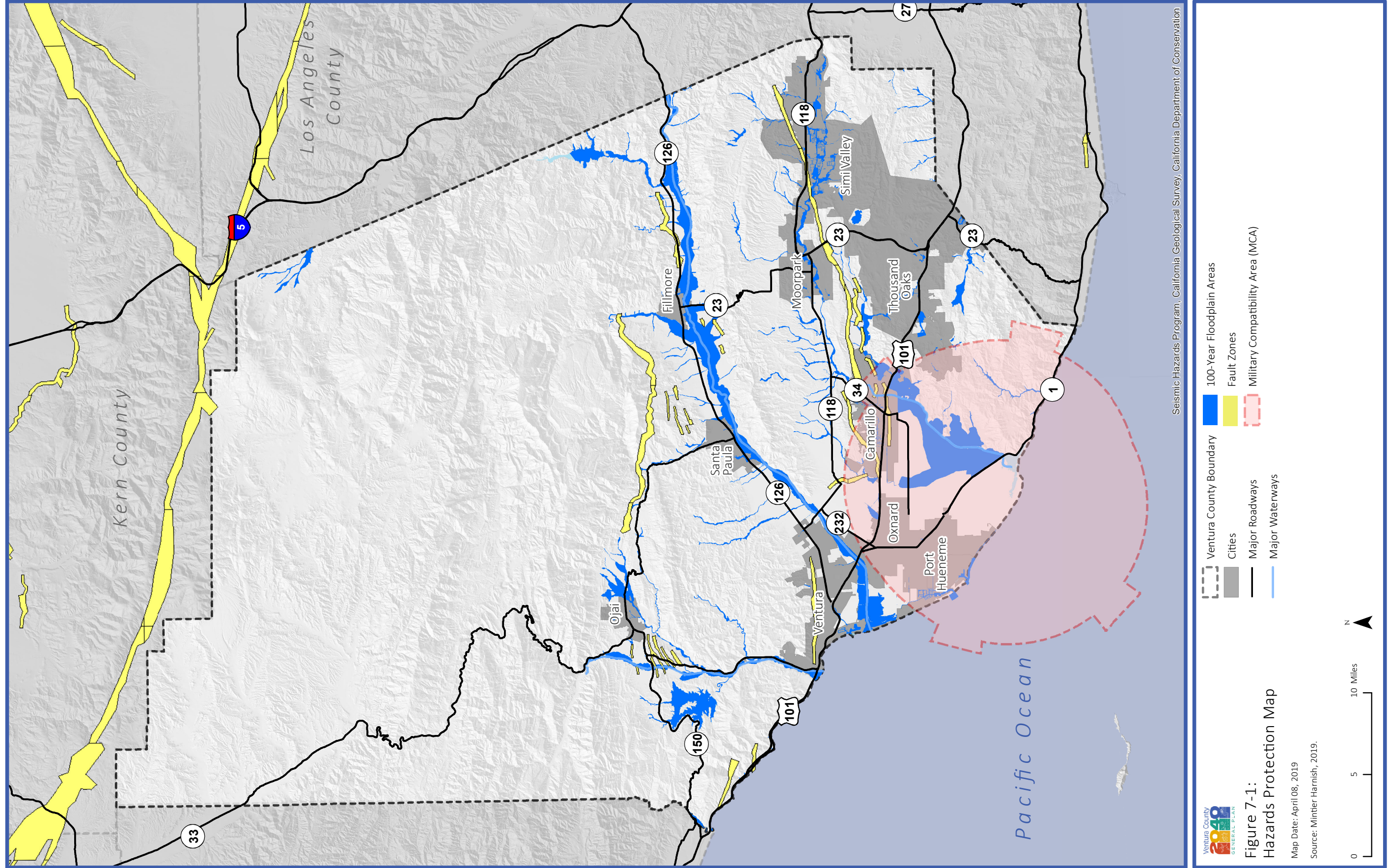
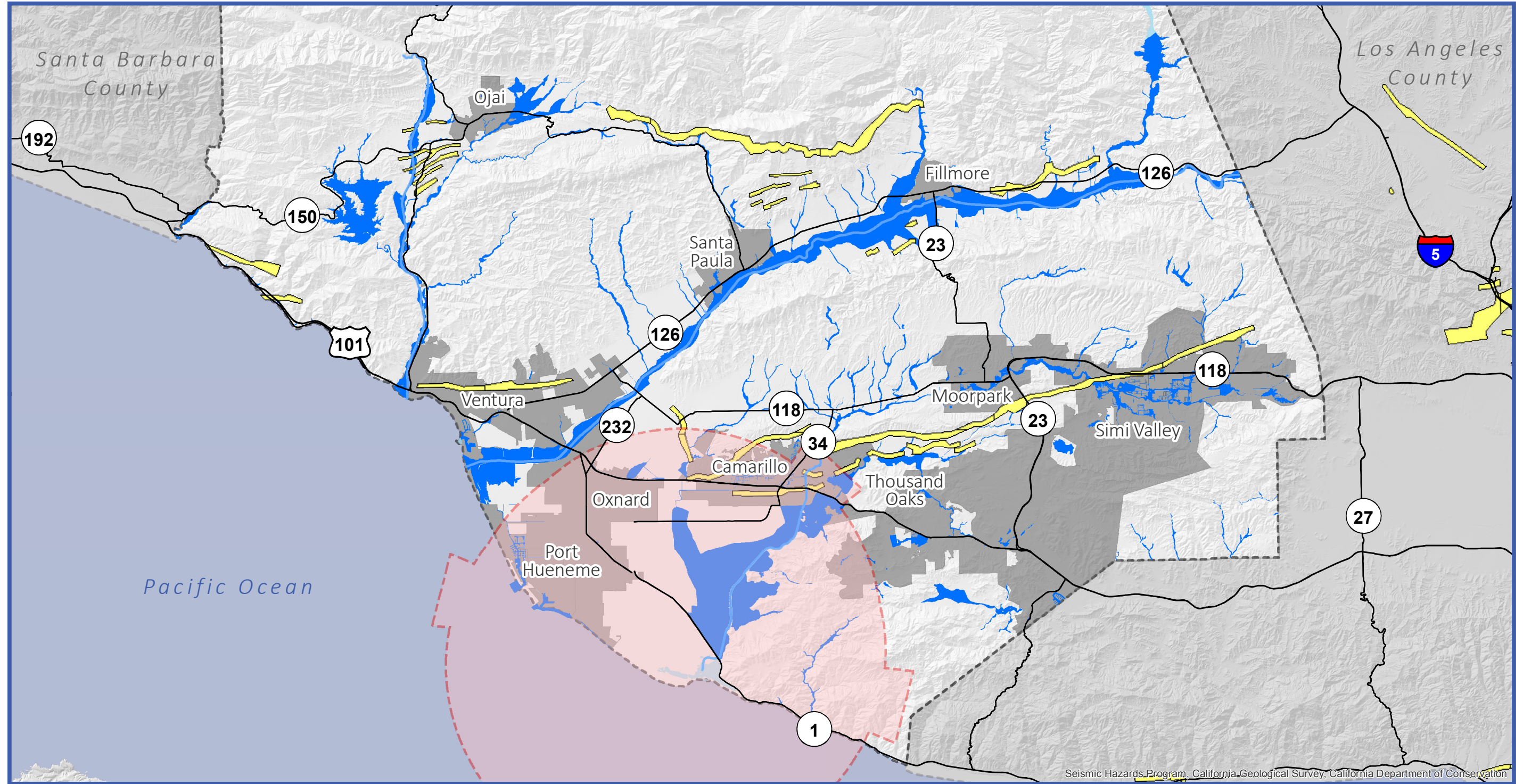


Figure 7-1:  
Hazards Protection Map

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Seismic Hazards Program, California Geological Survey, California Department of Conservation

**Figure 7-2:**  
Hazards Protection Map  
Southern Half

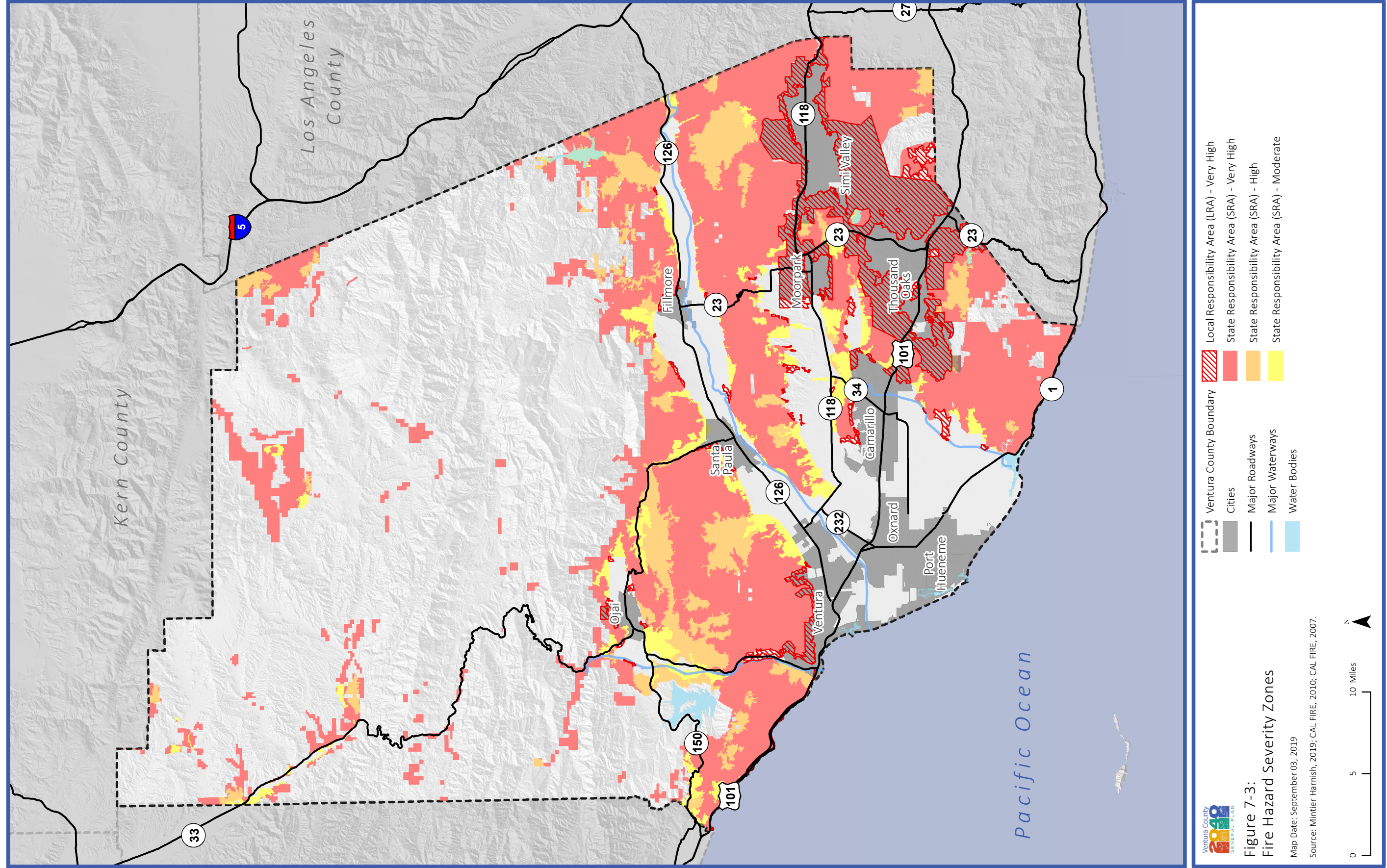
Map Date: April 08, 2019  
Source: Mintier Harnish, 2019.

Ventura County Boundary	100-Year Floodplain Areas
Cities	Fault Zones
Major Roadways	Military Compatibility Area (MCA)
Major Waterways	

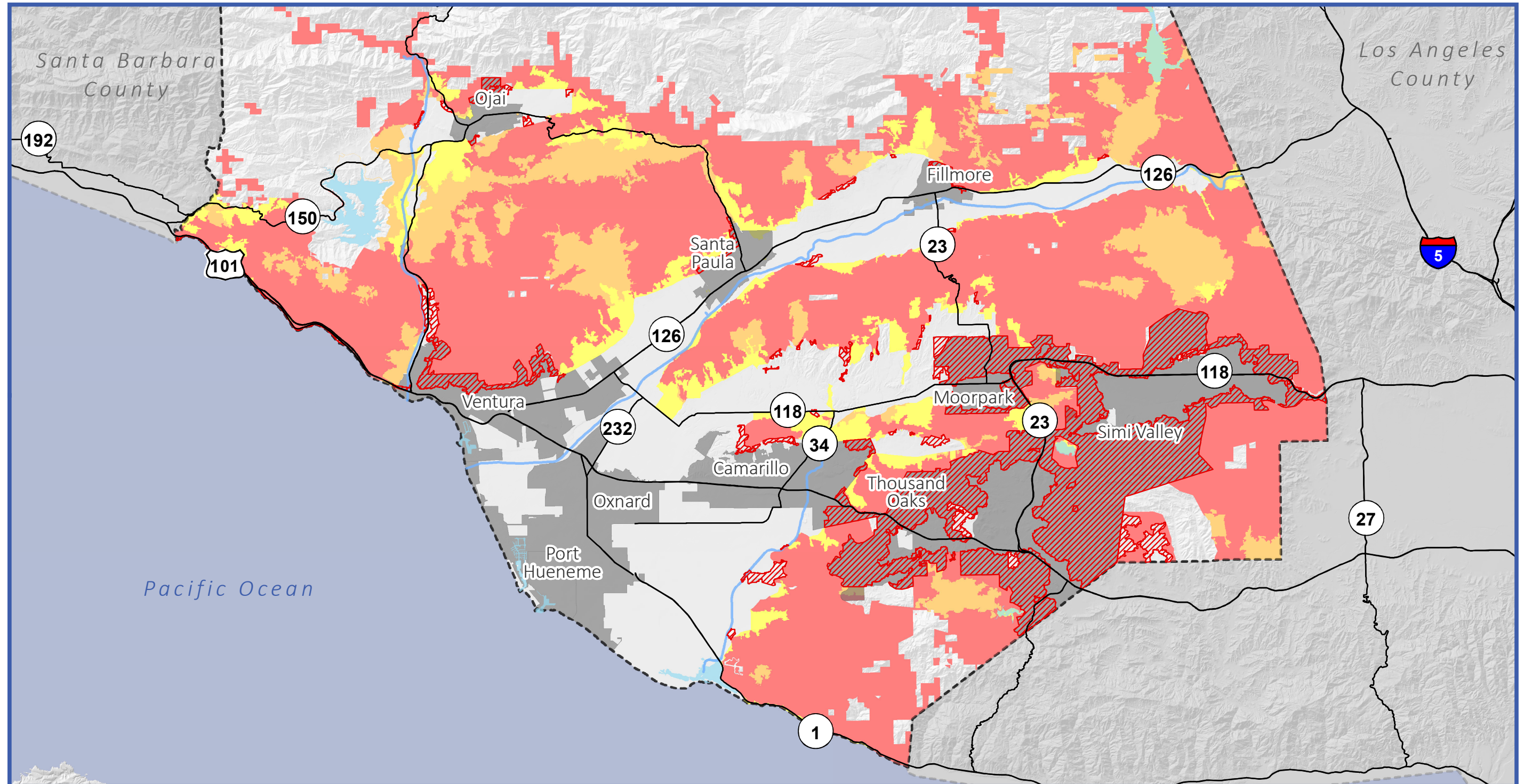
0 5 10 Miles

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**Figure 7-4: Fire Hazard Severity Zones Southern Half**

Map Date: September 03, 2019  
 Source: Mintier Harnish, 2019; CAL FIRE, 2010; CAL FIRE, 2007.

Ventura County Boundary	Local Responsibility Area (LRA) - Very High
Cities	State Responsibility Area (SRA) - Very High
Major Roadways	State Responsibility Area (SRA) - High
Major Waterways	State Responsibility Area (SRA) - Moderate
Water Bodies	

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### HAZ-1

To improve the resilience of the County to wildfire risk by locating, designing, and constructing development in a manner that minimizes the risk, and by providing effective fire prevention, suppression, and rescue services and facilities.

#### HAZ-1.1

##### **Fire Prevention Design and Practices**

**CAP**

The County shall continue to require development to incorporate design measures that enhance fire protection in areas of high fire risk. This shall include but is not limited to incorporation of fire-resistant structural design, use of fire-resistant landscaping, and fuel modification around the perimeter of structures. (RDR, PI)

#### HAZ-1.2

##### **Defensible Space Clear Zones**

**CAP**

The County shall require adherence to defensible space standards, or vegetation “clear zones,” for all existing and new structures in areas that are designated as Hazardous Fire Areas by the Ventura County Fire Protection District and High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection. (IGC, PI, RDR)

#### HAZ-1.3

##### **Controlled Burns and Other Fire Prevention Measures**

**CAP**

The County shall continue to recognize the role of fire in local ecosystems by supporting controlled burns and other fire prevention measures. (IGC)

#### HAZ-1.4

##### **Development in High Fire Hazard Severity Zones and Hazardous Fire Areas**

**CAP**

The County shall require the recordation of a Notice of Fire Hazard with the County Recorder for all new discretionary entitlements (including subdivisions and land use permits) within areas designated as Hazardous Fire Areas by the Ventura County Fire Department or High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection (CAL FIRE). (RDR)

#### HAZ-1.5

##### **Discouragement of Home-Building in Very High Fire Severity Zones**

The County should discourage the building of homes in Very High Fire Severity Zones. (RDR)

#### HAZ-1.6

##### **Wildfire Risk Education**

**CAP**

The County shall continue to develop and distribute educational materials and conduct educational outreach activities informing the public about wildfire risk and protection strategies. (PSR, IGC, PI)

#### HAZ-1.7

##### **Post-Fire Community and Natural Resource Recovery**

The County shall assemble an interagency team as needed to maintain response plans and coordinate the management of resources following wildfire events. (PSR, IGC)

#### HAZ-1.8

##### **Federal Fire Risk Management**

The County should collaborate with the federal agencies to better manage fuel loads on federally-owned or managed lands. (IGC)

## 7.2 Flood Hazards

A flood occurs when the existing channel of a stream, river, canyon, or other watercourse cannot contain excess water runoff from natural processes such as heavy or sustained rainfall events as well as human-induced incidents such as dam, pipe, or water tank failures that result in overflows onto adjacent lands. In coastal areas, flooding may also occur when large waves, high winds, or tides cause seawater to surge into areas that are above the normal high tide line.

Wildfires are a common occurrence in the hills and mountainous regions of Ventura County. By reducing or destroying vegetative cover and altering surface soil characteristics, fires often result in conditions that can significantly increase runoff and erosion during rainfall events. These conditions may also result in a debris flows (also referred to as mud flow) where a mixture of water-laden rock and sediment can funnel into stream channels and pose additional safety threats.

The focus of this section is to address all potential flood hazards by maintaining and improving the flood protection infrastructure, requiring all new developments provide adequate flood protection, and by continuing effective emergency response efforts in response to flooding events.



*A goal and associated policies and implementation programs addressing flood control and drainage facilities are located in Chapter 5, Public Facilities and Services Element.*

### HAZ-2

To minimize the loss of life, injury, property damage, and economic and social dislocations resulting from flooding, dam failure, seismic-induced flooding, post-fire debris flow, tsunamis, or other water inundation hazard.

#### HAZ-2.1

##### **Principal Floodway Purpose**

The County should limit land use in the regulatory floodway, as identified in the Ventura County Flood Plain Management Ordinance, limited to open space, agriculture, or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway's principal use should be maintained for safely conveying floodwater away from people and property while protecting ecological functions of the river. (RDR)

#### HAZ-2.2

##### **Best Available Flood Hazard Information**

The County shall continue to use the best available flood hazard information from local, regional, State, and Federal agencies to inform decision-making on appropriate land uses, discretionary development, and infrastructure investments. (SO, MPSP, RDR)

#### HAZ-2.3



##### **Incompatible Land Uses in Floodplains**

The County shall prohibit incompatible land uses and limit discretionary development within floodplains. (RDR)

#### HAZ-2.4

##### **Low Impact Development Upstream of Military Installations**

The County shall encourage discretionary development upstream of military installations to incorporate low impact designs that reduce the risk of flooding downstream. (RDR)

## 7. Hazards and Safety Element

- HAZ-2.5      Recordation of a Notice of Flood Hazard**  
 The County shall require the recordation of a Notice of Flood Hazard with the County Recorder for all new discretionary entitlements (including subdivisions and land use permits) within areas subject to flooding as determined by the Federal Emergency Management Agency on the latest available Digital Flood Insurance Rate Maps (DFIRMs). (RDR)
- HAZ-2.6      Recordation of a Notice of Dam Inundation Hazard**  
 The County shall require the recordation of a Notice of Dam Inundation Hazard with the County Recorder for new discretionary entitlements (including subdivisions and land use permits) within areas subject to flooding from a dam breach as identified by the California Department of Water Resources Dam Inundation Maps. Evidence of a federally held flowage easement can be used as well. (RDR)
- HAZ-2.7      Tsunami Hazard Areas – Planning**  
 The County shall strive to locate essential facilities, special occupancy structures and hazardous materials storage facilities outside of tsunami hazard areas. (RDR)
- HAZ-2.8      Natural Flood Protection Solutions**  
 The County shall consider natural, or nature-based flood protection measures for discretionary development or County-initiated development, when feasible. (PSR, IGC)

### 7.3 Coastal Flooding

California’s coastline, which includes more than 2,000 miles of open coast and enclosed bays, is vulnerable to a range of natural hazards, including storms, extreme high tides, tsunamis, and rising sea levels related to climate change. Sea level rise will increase the threat of coastal flooding. Along the central and southern California coast, the sea has risen by more than 5.9 inches over the 20th Century. Climate change modeling, as reported in the Ocean Protection Council’s Sea Level Rise Guidance document (Natural Resources Agency, State of California, 2018), provides sea level rise guidance that projects up to 85.2 inches of increase by 2100.

Popular coastal recreational resources, critical transportation infrastructure, facilities associated with Naval Base Ventura County, as well as residential and commercial properties along the coast are vulnerable to five or more feet of sea level rise within Ventura County, particularly in conjunction with one hundred year storm events along the coast (one percent annual chance). Open space uses such as beaches, sand dunes, agriculture, and estuaries are also highly vulnerable. By the year 2040, prominent sea level models predict that beach widths will noticeably decrease. By 2100, narrow beaches on the north and south coasts of the County will disappear, and the expansive central coast beaches will be reduced by half.

Additionally, areas close to the ocean with high groundwater could become flooded as rising tides infiltrate through soils and pond in low-lying areas. Along coastal highways, increasing forces of erosion may expose and damage buried infrastructure and roadway structures. Groundwater quality is likely to degrade due to increased saltwater intrusion.

Sea level rise will also have an impact on Ventura County’s coastal ecosystems. Aquatic ecosystems located in creeks, streams, and estuaries along the coast, many containing a range of sensitive species of plants and animals, will need to adapt to changes in water quality from saltwater intrusion/incursion further upstream. The beneficial services that coastal ecosystems provide, such as flood protection, water filtration, and support for fisheries will be threatened as rising sea levels expose beach, dune, estuarine, and freshwater habitats. Finally,

natural resources, such as cobble, sand, and dunes that have been overlooked for coastal planning will be increasingly necessary to hold and maintain the County's beaches for sea level rise adaptation.



*For policies concerning coastal resources, see Chapter 6, Conservation and Open Space Element.*

### HAZ-3

To improve resilience to sea level rise and coastal flooding.

#### HAZ-3.1

##### **Sea Level Rise Planning and Adaptation**

**CAP**

The County shall continue to actively plan for sea level rise by using the best available science to analyze critical vulnerabilities, identify measures to conserve coastal resources, minimize impacts on residents and businesses, maintain public services, and strengthen resiliency. (MPSP)

#### HAZ-3.2

##### **County Infrastructure Projects and Sea Level Rise**

**CAP**

County-initiated infrastructure projects sited along or seaward of Highway 101, such as bridges and levees, that will provide 100 years or more of service, shall be planned with the potential to be easily modified to accommodate 100-years of projected sea level rise in accordance with the H++ extreme risk aversion sea level rise scenario. (PSR, IGC)

#### HAZ-3.3

##### **Sea Level Rise Educational Outreach**

**CAP**

To the extent feasible, the County shall incorporate education elements into coastal adaptation projects to inform the public about the risks of sea level rise and options for adaptation. (RDR, SO, JP)

## 7.4 Geologic and Seismic Hazards

Consistent with the [2015 Ventura County Multi-Hazard Mitigation Plan](#), this section focuses on geologic and seismic hazards in Ventura County, which include the following areas of concern:

- Earthquake Faults
- Seismic Hazards -Liquefaction/Earthquake Induced Landslides
- Landslides
- Soil Erosion
- Expansive Soils
- Seiche
- Subsidence

It is important to note that there are several earthquake faults in the county that have a status of "Active" or "Potentially Active," according to the California Geological Survey's Seismic Hazards (Assessment and Mapping) Program. Areas throughout the county are also susceptible to liquefaction, with the most vulnerable locations being along the Santa Clara River and the Oxnard Plain. These areas are described and illustrated on figures in Section 11.1, "Geologic and Seismic Hazards," of the Background Report.



### HAZ-4

To minimize the risk of loss of life, injury, collapse of habitable structures, and economic and social dislocations resulting from geologic and seismic hazards.

#### HAZ-4.1

EJ

##### **Projects in Earthquake Fault Zones**

The County shall prohibit new structures for human occupancy and subdivisions that contemplate the eventual construction of structures for human occupancy in Earthquake Fault Zones unless a geologic investigation is performed to delineate any hazard of surface fault rupture and appropriate and sufficient safeguards, based on this investigation, are incorporated into the project design. (RDR)

#### HAZ-4.2

##### **Linear Project Intersection with Active Faults**

The County shall require that linear projects, including roads, streets, highways, utility conduits, water transmission facilities, and oil and gas pipelines, avoid intersecting active faults to the extent possible. When such locations are unavoidable, the project design shall include measures to minimize the effects of any fault movement. (RDR)

#### HAZ-4.3

##### **Structural Design**

The County shall require that all structures designed for human occupancy incorporate engineering measures to reduce the risk of and mitigate against collapse from ground shaking. (RDR)

#### HAZ-4.4

##### **Discretionary Development Below Rocky Outcrops**

The County shall require discretionary development below rocky outcrops to evaluate and mitigate potential rockfall hazards including but not limited to by avoiding placement of structures that could be impacted by rockfall hazards, rock removal, rock anchoring, walls, fence barriers, or other similar systems. (RDR)

#### HAZ-4.5

##### **Soil Erosion and Pollution Prevention**

The County shall require discretionary development be designed to prevent soil erosion and downstream sedimentation and pollution. (RDR)

#### HAZ-4.6

##### **Vegetative Resource Protection**

The County shall require discretionary development to minimize the removal of vegetation to protect against soil erosion, rockslides, and landslides. (SO)

#### HAZ-4.7

##### **Temporary Revegetation on Graded Areas**

The County shall require, as necessary, the use of soil stabilization methods on graded areas to reduce the potential for erosion, particularly during the construction phase. (RDR)

#### HAZ-4.8

##### **Seismic Hazards**

The County shall not allow development of habitable structures or hazardous materials storage facilities within areas prone to the effects of strong ground shaking, such as liquefaction, landslides, or other ground failures, unless a geotechnical engineering investigation is performed and appropriate and sufficient safeguards, based on this investigation, are incorporated into the project design. (RDR)

#### HAZ-4.9

##### **Slope Development**

The County shall require geotechnical reports that demonstrate adequate slope stability and construction methods for building and road construction on slopes greater than 50 percent pursuant to the California Building Code Appendix J Section 108.6. (RDR)

- HAZ-4.10      Development in Landslide/Debris Flow Hazard Areas**  
The County shall not allow development in mapped landslide/debris flow hazard areas unless a geologic and geotechnical engineering investigation is performed and appropriate and sufficient safeguards, based on this investigation, are incorporated into the project design. (RDR)
- HAZ-4.11      Alteration of Land in Landslide/Debris Flow Hazard Areas**  
The County shall not allow alteration of land in landslide/debris flow hazard areas, including concentration of water through drainage, irrigation or septic systems, removal of vegetative cover, and undercutting of the bases of slopes or other grading activity unless demonstrated by geologic, geotechnical, and civil engineering analysis that the project will not increase the landslide/debris flow hazard. (RDR)
- HAZ-4.12      Slope Drainage**  
Drainage plans that direct runoff and drainage away from slopes shall be required for construction in hillside areas. (RDR)
- HAZ-4.13      Design for Expansive Soils**  
The County shall not allow habitable structures or individual sewage disposal systems to be placed on or in expansive soils unless suitable and appropriate safeguards are incorporated into the project design to prevent adverse effects. (RDR)
- HAZ-4.14      Development in Seiche Hazard Areas**  
The County shall not allow development in potential seiche hazard areas unless a geotechnical engineering investigation is performed and appropriate and sufficient safeguards, based on this investigation, are incorporated into the project design. (RDR)
- HAZ-4.15      Subsidence Hazard – Extraction Wells**  
The County shall require that potential ground surface subsidence be evaluated prior to approval of new oil, gas, water or other extraction well drilling permits and appropriate and sufficient safeguards are incorporated into the project design and facility operation. (RDR)
- HAZ-4.16      Subsidence and Hydroconsolidation Hazard – Structural Design**  
Structural design of buildings and other structures shall recognize the potential for subsidence and hydroconsolidation and provide mitigation recommendations for structures that may be affected. (RDR)
- HAZ-4.17      Earthquake Fault Zone Maps or Earthquake Zones of Required Investigation**  
The County should, where feasible, require that land in Earthquake Fault Zones and potentially Holocene active fault areas be designated Open Space or Agriculture on the General Land Use Diagram. (RDR)
- HAZ-4.18      Preparation of Plans in Seiche Hazard Areas**  
The County shall consider Seiche Hazard Areas during the preparation of regional and area plans and special studies and be used to guide future investigations of the hazard. (RDR)

### 7.5 Hazardous Materials

This section addresses hazardous materials, which include any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant existing or potential hazard. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that is potentially injurious to the health and safety of persons or harmful to the environment if released or encountered.

#### HAZ-5

To minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment and disposal of hazardous materials and wastes.

#### HAZ-5.1

##### **Hazardous Materials and Waste Management**

The County shall manage hazardous materials and wastes produced by County facilities and operations in such a way that waste reduction through alternative technology is the County's first priority. When not possible, the County's priorities will progress from recycling and reuse, then on-site treatment, and finally disposal as the last resort. (SO)

#### HAZ-5.2

EJ

##### **Hazardous Materials and Waste Management Facilities**

The County shall require discretionary development involving facilities and operations which may potentially utilize, store, and/or generate hazardous materials and/or wastes be located in areas that would not expose the public to a significant risk of injury, loss of life, or property damage and would not disproportionately impact Designated Disadvantaged Communities. (SO)

#### HAZ-5.3

##### **Preventing Contamination of Natural Resources**

The County shall strive to locate and control sources of hazardous materials to prevent contamination of air, water, soil, and other natural resources. (SO)

#### HAZ-5.4

HC

##### **Household Hazardous Waste**

The County shall continue to develop and distribute educational materials and conduct educational outreach to inform the public about household hazardous waste and the proper disposal methods. (PI)

#### HAZ-5.5

##### **Hazardous Waste Reduction at the Source**

The County shall, as part of the discretionary review process, require that hazardous wastes and hazardous materials be managed in such a way that waste reduction through alternative technology is the first priority, followed by recycling and on-site treatment, with disposal as the last resort. (RDR)

#### HAZ-5.6

##### **Hazardous Materials – County Regulatory Oversight**

The County shall continue to provide regulatory oversight for all facilities or activities that store, use, or handle hazardous materials. (SO)

#### HAZ-5.7

##### **Presence of Hazardous Wastes**

Applicants shall provide a statement indicating the presence of any hazardous wastes on a site, prior to discretionary development. The applicant must demonstrate that the waste site is properly closed, or will be closed, pursuant to all applicable state and federal laws, before the project is inaugurated. (RDR)

**HAZ-5.8**

**EJ**

**Siting Criteria for Hazardous Waste Generators**

The County shall require commercial or industrial uses which generate, store, or handle hazardous waste and/or hazardous materials to locate, operate, and maintain hazardous waste and/or hazardous materials in a manner that does not endanger public health and safety and is located based on objective criteria that do not disproportionately impact Designated Disadvantaged Communities. (RDR)

## 7.6 Transportation Related Hazards

Hazards associated with movement of goods and people or conveyance of hazardous materials have been grouped together and are addressed below. These include incidents related to aviation, vehicles, and railroad operations.



*Policies concerning hazards related to oil and gas transportation can be found in Section 7.7, Oil and Gas Production and Transportation Incidents.*

Although airplane crashes can occur anywhere, crashes that affect life and property on the ground occur most frequently in airport approach and departure zones. Residences, schools, and other buildings occupied by people that are located in such zones are subject to an ever-present risk from airplane accidents. Hazard zones have been identified for the four airports within the county: 1) Ventura County Airport at Oxnard; 2) Ventura County Airport at Camarillo; 3) Santa Paula Airport; and 4) Naval Base Ventura County, Point Mugu.

Ground-based transportation also poses risks associated with potential incidents. A major train derailment that occurs in a heavily populated area can result in loss of life and considerable property damage. Potential hazards could be overturned rail cars and direct impact into adjacent buildings. With similar results, a major truck incident that occurs in a heavily populated industrial area or residential area can also result in loss of life and property damage. In addition to more routine traffic incidents, more significant hazards could include spills or other leaks from overturned tank trailers.

### HAZ-6

To minimize the loss of life, injury, damage to structures, and economic and social dislocations resulting from hazards created by proximity to airports, railroads and truck routes.

#### HAZ-6.1

##### **Airport Land Use Plan**

The County shall regulate land use types, density, and intensity using guidance from the Ventura County Comprehensive Airport Land Use Plan, NBVC-Point Mugu Air Installations Compatible Use Zones (AICUZ) study, State Aeronautics Act, and California Airport Land Use Planning Handbook guidelines. (RDR)

#### HAZ-6.2

##### **Airport Safety Zones**

The County shall require density and allowed uses within the Airport Safety Zones to be as defined in the Ventura County Airport Comprehensive Land Use Plan (ACLUP) and the current NBVC-Point Mugu Air Installations Compatible Use Zones (AICUZ) study, as applicable to the project location. The County shall require any overrides of a determination of inconsistency with the ACLUP to be done in accordance with state law. (RDR)

#### HAZ-6.3

##### **Airspace Protection**

The County shall use the current Ventura County Airport Comprehensive Land Use Plan (ACLUP) and Federal Aviation Administration (FAA) airport design standards and Part 77 surfaces to keep the airspace surrounding each airport or airfield free of objects affecting navigable airspace where required by the FAA or shall limit the height of objects as required by the FAA. The County shall also ensure obstruction clearance is provided for all enroute and terminal (airport) instrument procedures as per the United States Standard for Terminal Instrument Procedures (TERPS) to avert modifications to any planned or published instrument approach or instrument departure procedures at the affected airport or airfield. (RDR)

#### HAZ-6.4

##### **Private Airstrips and Agricultural Landing Fields**

The County shall require private airstrips and agricultural landing fields be sited so as not to conflict with the flight paths of existing airports and outside of areas that would present significant hazard or an annoyance to existing or planned land uses. (RDR)

#### HAZ-6.5

##### **Review by Ventura County Transportation Commission**

The County shall require discretionary development within the Airport Safety Zones, as defined in the Ventura County Airport Comprehensive Land Use Plan for (ACLUP), shall be reviewed by the Ventura County Transportation Commission (VCTC) for consistency with the ACLUP. (RDR)

#### HAZ-6.6

##### **Recordation of a Notice of Aviation Hazard**

The County shall require the recordation of a Notice of Aviation Hazard with the County Recorder for new discretionary entitlements (including subdivisions and land use permits) within the Airport Safety Zones identified in the Ventura County Comprehensive Airport Land Use Plan. (RDR)

#### HAZ-6.7

##### **Risk Reduction for Railroad and Trucking Hazards**

The County shall condition discretionary development to minimize, to the maximum extent practical through site design or setbacks, the risk for exposure to railroad and trucking hazards. (RDR)

### HAZ-6.8

#### Airport Safety Zones

the County shall designate land located within the Airport Safety Zones, as defined in the current Airport Comprehensive Land Use Plan, as Agricultural or Open Space on the General Plan Land Use Diagram, and limit such land to the following uses:

- Airports and ancillary uses;
- Agriculture and agricultural operations;
- Cemeteries;
- Energy production from renewable resources;
- Mineral resource development;
- Public utility facilities;
- Temporary storage of building materials;
- Waste treatment and disposal; or
- Water production and distribution facilities.

(RDR, MPSP)

## 7.7 Oil and Gas Production and Transportation Incidents

The potential exists for offshore oil accidents and spills in Ventura County involving petroleum products due to oil and gas development, transportation of liquid bulk products by tanker, and other vessel traffic carrying petroleum products for fuel. An offshore spill can result in oil-contaminated beaches. The major potential sources of offshore spills are separated into the following categories:

- **Oil Platform Production.** There are four platforms in federal waters offshore Ventura County. They are Chevron's Platforms Grace and Gail and Unocal's Platforms Gina and Gilda. There are no platforms in state waters (i.e., within three miles of shore). Rincon Island contains 68 inactive well ports is being decommissioned. There are additional platforms in state and federal waters offshore Santa Barbara County. The probability of an oil spill from a platform is small but possible. As a result of the Santa Barbara Oil well blowout in 1969, operating and safety requirements were substantially strengthened. During drilling, all offshore wells are equipped with redundant blowout protectors that can be closed hydraulically from a remote-control station in the event of a blowout.
- **Vessel Traffic.** The number of liquid bulk carriers presently transiting the Santa Barbara Channel is estimated to be between one and three per day. The Alaskan tankers may each carry as much as 1.5 million barrels of oil although the average is about 675,000 barrels. The other tankers are much smaller carrying 100,000 to 300,000 barrels. Although the probability of a tanker spill is low, it is possible. Potential causes of spills include collisions, rammings, groundings, and structural failures. The other commercial vessels transiting the channel carry fuel (bunkers), which can be released in the event of an accident.
- **Subsea Pipelines.** All of the platforms listed in the oil platform production section ship their oil to shore via subsea pipelines. Potential causes of pipeline spills include corrosion, mechanical defects, and ruptures caused by events such as anchor dragging or earthquakes. Oil pipelines are normally equipped with

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various sensors and/or valves that will allow the pipeline to be shut down rapidly and automatically in the event of a rupture.

- **Marine Terminals.** Fuel is off-loaded at the Port of Hueneme for the Ormond Beach power plant. Spills from marine terminals can be caused by operation errors or a rupture or leak in the loading/unloading lines.
- **Onshore Oil Pipeline Spill.** Similar to a marine oil spill, an onshore oil pipeline spill can be a serious hazard to surface and groundwater resources, property, animals and human life. Oil and gas transport lines have been mapped on the County’s Geographic Information System (GIS) to allow improved response to spills in the event of pipeline system failure or a seismic event. Although available to emergency responders and planners, GIS information on the location of these transport lines is proprietary and contact must be first made with the California State Fire Marshall.

### HAZ-7

To reduce or mitigate the effects of marine oil spills or onshore oil pipeline spills upon the population and environment.

#### HAZ-7.1

##### Oil Spill Prevention

The County shall review and analyze all proposed oil and gas exploration and production projects, and shall condition all County discretionary permits for such projects, to require compliance with local, state, and federal oil spill prevention regulations. The County shall also provide input and comments on permit applications that are under the purview of an outside agency. (RDR, IGC)



*This topic is highly regulated by Federal and State agencies; therefore, policy is limited to topics covered by the County directly.*

## 7.8 Military Compatibility

Ventura County is home to several significant military installations and operations areas. These facilities are not only critical to the nation’s defense, but also provide significant economic benefits and land use challenges.

Naval Base Ventura County consists of three main operating facilities – Point Mugu, Port Hueneme, and San Nicolas Island – that encompass a diverse set of specialties, including three warfare centers (Naval Air Warfare Center – Weapons Division, Naval Surface Water Center – Port Hueneme Division, and Naval Facilities Engineering and Expeditionary Warfare Center). NBVC is also home to deployable units, including the Pacific Seabees and the West Coast E-2 Hawkeyes. Smaller sites used for communications and supporting services are also located in the county, but outside the main operating facilities. The 204-acre Channel Islands Air National Guard Station is located adjacent to Naval Base Ventura County-Point Mugu. Additionally, the Instrument Route-200 (IR-200) military training route passes through Ventura County connecting the Point Mugu Sea Range and the Naval Air Weapons Station (NAWS) China Lake.

Compatibility between military installations, adjacent land uses, and local communities is essential to protect military missions, the health of local economies and industries, and the quality of life for county residents. In order to achieve compatibility, the military and local governments must be collaborative and cooperative in their planning efforts. The policies in this section are intended to support that collaboration.



*Further information on Military Compatibility can be found in Chapter 2, Land Use Element and in these documents:*

- *Air Installations Compatible Use Zones (AICUZ) report for Naval Base Ventura County, Point Mugu*
- *Naval Base Ventura County (NBVC) Joint Land Use Study (JLUS)*

### HAZ-8

To make County plans and policies consistent with state laws concerning military compatibility and the recommendations contained in the Naval Base Ventura County Joint Land Use Study as they relate to safety.

#### HAZ-8.1

##### **Enhancing Military Facility Security**

The County shall educate and encourage community members to assist in reporting suspicious activities near Naval Base Ventura County (NBVC) facilities to help enhance the security. (IGC)

#### HAZ-8.2

##### **Emergency Drills**

The County, in coordination with Naval Base Ventura County (NBVC), shall continue to conduct planned emergency drill exercises with local public safety responders to test how communications are relayed to the public during an emergency. (SO)

#### HAZ-8.3

##### **Military Compatibility and Renewable Energy Development**

The County shall require that new larger-scale commercial renewable energy development is consistent with Joint Land Use Study (JLUS) policies and regulations and that Naval Base Ventura County (NBVC) and the Department of Defense (DOD) Siting Clearinghouse are included in the development review process. (MPSP)

#### HAZ-8.4

##### **Frequency Spectrum Encroachment Review**

For discretionary development within 10 miles of Naval Base Ventura County (NBVC), Point Mugu that includes transmission facilities operating near military spectrum, the County shall submit project applications to NBVC for review and comment to determine appropriate coordination and review. (SO, IGC)

#### HAZ-8.5

##### **Light and Glare Control**

The County shall coordinate and consult with Naval Base Ventura County (NBVC) when reviewing applications for commercial alternative energy facilities (e.g., wind, solar, tidal) to ensure the systems do not impact flight or test operations. (RDR)



### 7.9 Noise

The predominant sources of noise in the county include traffic noise on major roadways, transit and freight trains, and aircraft. In addition to the information provided in Section 11.6, “Noise and Vibration,” of the Background Report on existing conditions, Table 7-1 includes the calculated future noise levels at 50 feet from County roadways, as well as distances to the 60, 65, and 70 dBA CNEL noise contours for all modeled roadways.

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. These uses include: residences; schools; historic sites; cemeteries; parks, recreation, and open space areas; hospitals and care facilities; sensitive wildlife habitats, including the habitat of rare, threatened, or endangered species; hotels and other short-term lodging (e.g., bed and breakfasts, and motels); places of worship; and libraries.

#### HAZ-9

To protect the health, safety, and general welfare of county residents by striving to eliminate or avoid the adverse noise impacts on existing and future noise sensitive uses.

#### HAZ-9.1

##### Limiting Unwanted Noise

The County shall prohibit discretionary development which would be impacted by noise or generate project-related noise which cannot be reduced to meet the standards prescribed in Policy Haz-9.2. This policy does not apply to noise generated during the construction phase of a project. (SO)

#### HAZ-9.2



##### Noise Compatibility Standards

The County shall review discretionary development for noise compatibility with surrounding uses. The County shall determine noise based on the following standards:

1. New noise sensitive uses proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that indoor noise levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed CNEL 60 or Leq1H of 65 dB(A) during any hour.
2. New noise sensitive uses proposed to be located near railroads shall incorporate noise control measures so that indoor noise levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed L10 of 60 dB(A)
3. New noise sensitive uses proposed to be located near airports:
  - a. Shall be prohibited if they are in a Community Noise Equivalent Level (CNEL) 65 dB or greater, noise contour; or
  - b. Shall be permitted in the Community Noise Equivalent Level (CNEL) 60 dB to CNEL 65 dB noise contour area only if means will be taken to ensure interior noise levels of CNEL 45 dB or less.

4. New noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards:
  - a. Leq1H of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.;
  - b. Leq1H of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.; and
  - c. Leq1H of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.
  
5. Construction noise and vibration shall be evaluated and, if necessary, mitigated in accordance with the Construction Noise Threshold Criteria and Control Plan (Advanced Engineering Acoustics, November 2005). (RDR)

**Table 7-1 Projected 2040 Noise Levels and Contours**

Corridor and Segment		Noise (dBA CNEL) at 50 feet from Roadway	Noise Contour Distance in Feet		
			60 dBA	65 dBA	70 dBA
<b>Roadways</b>					
1	Aggen Road north of Los Angeles Avenue (SR 118)	55.0	32	10	3
2	Balcom Canyon Road south of South Mountain Road	58.2	65	21	7
3	Balcom Canyon Road north of Los Angeles Avenue (SR 118)	57.1	51	16	5
4	Bardsdale Avenue east of Sespe Street	56.7	47	15	5
5	Beardsley Road north of Central Avenue	62.8	190	60	19
6	Box Canyon Road south of Santa Susana Pass Road	59.3	86	27	9
7	Bradley Road north of Los Angeles Avenue (SR 118)	62.2	166	52	17
8	Briggs Road south of Telegraph Road	62.9	197	62	20
9	Briggs Road north of Telegraph Road	58.8	75	24	8
10	Bristol Road west of Montgomery Avenue	65.9	387	123	39
11	Broadway Road west of Grimes Canyon Road (SR 23)	61.0	125	40	13
12	Burnham Road south of Baldwin Road (SR 150)	57.7	59	19	6
13	Burnham Road east of Santa Ana Road	57.3	54	17	5
14	Calle Yucca north of Camino Manzanas	54.2	26	8	3
15	Camino Dos Rios west of Lynn Road	57.2	52	17	5
16	Canada Larga Road east of Ventura Avenue	54.4	28	9	3
17	Casitas Vista Road west of Ojai Freeway (SR 33)	58.6	72	23	7
18	Center School Road south of Los Angeles Avenue (SR 118)	56.2	42	13	4
19	Center Street (Piru) west of Telegraph Road (SR 126)	54.7	29	9	3
20	Central Avenue west of Ventura Freeway (US 101)	67.9	619	196	62
21	Central Avenue west of Santa Clara Avenue	67.9	620	196	62
22	Central Avenue east of Vineyard Avenue (SR 232)	64.5	284	90	28
23	Channel Islands Boulevard west of Rice Avenue	68.4	693	219	69
24	Creek Road east of Country Club Drive	55.8	38	12	4
25	Creek Road east of Ventura Avenue (SR 33)	62.6	181	57	18
26	Donlon Road north of La Cumbre Road	52.0	16	5	2
27	Doris Avenue east of Victoria Avenue	64.9	311	98	31

## 7. Hazards and Safety Element

Corridor and Segment		Noise (dBA CNEL) at 50 feet from Roadway	Noise Contour Distance in Feet		
			60 dBA	65 dBA	70 dBA
28	El Roblar Drive west of Maricopa Highway (SR 33)	57.7	58	18	6
29	Etting Road east of Dodge Road	62.0	159	50	16
30	Fairview Road east of Maricopa Highway (SR 33)	51.4	14	4	1
31	Fairway Drive north of Valley Vista Drive	57.3	53	17	5
32	West Fifth Street east of North Harbor Boulevard	59.6	92	29	9
33	Foothill Road west of Peck Road	61.1	128	40	13
34	Foothill Road west of Briggs Road	56.2	42	13	4
35	Foothill Road east of North Wells Road	62.1	161	51	16
36	Foothill Road east of Saticoy Avenue	63.3	211	67	21
37	Gonzales Road east of North Harbor Boulevard	63.3	213	67	21
38	Grimes Canyon Road north of Los Angeles Avenue (SR 118)	61.5	142	45	14
39	Guiberson Road east of Chambersburg Road (SR 23)	57.7	58	18	6
40	Harbor Boulevard north of Gonzales Road	70.6	1,153	365	115
41	Harbor Boulevard south of Gonzales Road	70.3	1,074	340	107
42	Howe Road east of Torrey Road	51.6	14	5	1
43	Hueneme Road east of Las Posas Road	67.1	512	162	51
44	Hueneme Road east of Nauman Road	66.9	495	156	49
45	Hueneme Road east of Wood Road	66.2	417	132	42
46	Hueneme Road east of Olds Road	68.7	746	236	75
47	Kanan Road east of Lindero Canyon Road	66.6	460	145	46
48	Kanan Road east of Hollytree Drive/Oak Hills Drive	66.6	454	143	45
49	Kanan Road south of Tamarind Street	68.2	667	211	67
50	La Luna Avenue south of Lomita Avenue	56.4	44	14	4
51	Laguna Road east of Pleasant Valley Road	60.4	109	34	11
52	Las Posas Road north of East Fifth Street (SR 34)	67.7	587	186	59
53	Las Posas Road south of East Fifth Street (SR 34)	67.8	601	190	60
54	Las Posas Road south of Hueneme Road	65.6	361	114	36
55	Lewis Road south of Pleasant Valley Road	69.0	788	249	79
56	Lewis Road north of Potrero Road	67.9	617	195	62
57	Lockwood Valley Road west of Kern County Line	56.8	48	15	5
58	Lockwood Valley Road east of Maricopa Highway (SR 33)	49.0	8	3	1
59	Lomita Avenue east of Tico Road	59.1	82	26	8
60	Main Street (Piru) north of Telegraph Road (SR 126)	56.7	46	15	5
61	Moorpark Road north of Santa Rosa Road	70.7	1,168	369	117
62	Old Telegraph Road west of Grand Avenue	59.2	82	26	8
63	Olds Road north of Hueneme Road	61.4	137	43	14
64	Olivas Park Drive west of Victoria Avenue	68.9	769	243	77
65	Pasadena Avenue east of Sespe Street	50.7	12	4	1
66	Patterson Road south of Doris Avenue	52.5	18	6	2
67	Pleasant Valley Road south of East Fifth Street (SR 34)	69.4	861	272	86
68	Pleasant Valley Road west of Las Posas Road	68.2	663	210	66
69	Portero Road east of Lake Sherwood Drive East	62.8	193	61	19
70	Portero Road west of Stafford Road	59.9	97	31	10
71	Portero Road west of Hidden Valley Road	52.4	17	6	2
72	Portero Road at Milepost 2.75	58.6	73	23	7
73	Portero Road east of Lewis Road	62.7	188	59	19
74	Rice Avenue south of East Fifth Street (SR 34)	72.9	1,936	612	194
75	Rice Avenue north of Channel Islands Boulevard	71.9	1,559	493	156

Corridor and Segment		Noise (dBA CNEL) at 50 feet from Roadway	Noise Contour Distance in Feet		
			60 dBA	65 dBA	70 dBA
76	Rice Avenue north of Hueneme Road	59.8	96	30	10
77	Rice Road south of Lomita Avenue	59.8	96	30	10
78	Rose Avenue south of Los Angeles Avenue (SR 118)	64.2	265	84	26
79	Rose Avenue south of Central Avenue	64.5	279	88	28
80	Rose Avenue north of Collins Street	67.3	540	171	54
81	Santa Ana Boulevard east of Ventura River	58.8	76	24	8
82	Santa Ana Road south of Baldwin Road (SR 150)	54.6	29	9	3
83	Santa Ana Road south of Santa Ana Boulevard	60.7	119	37	12
84	Santa Clara Avenue north of Friedrich Road	69.0	803	254	80
85	Santa Clara Avenue south of Los Angeles Avenue (SR 118)	69.9	983	311	98
86	Santa Rosa Road west of Moorpark Road	70.8	1,203	380	120
87	Santa Rosa Road west of East Las Posas Road	69.0	801	253	80
88	Santa Susana Pass Road east of Katherine Road	58.2	66	21	7
89	Sespe Street north of South Mountain Road	61.6	144	45	14
90	Sespe Street south of Pasadena Avenue	55.7	37	12	4
91	South Mountain Road east of Balcom Canyon Road	55.1	32	10	3
92	South Mountain Road south of Santa Clara River	58.4	69	22	7
93	Stockton Road east of Balcom Canyon Road	56.4	43	14	4
94	Sturgis Road west of Pleasant Valley Road	65.4	350	111	35
95	Tapo Canyon Road south of Bennett Road	52.8	19	6	2
96	Telegraph Road west of Briggs Road	65.2	331	105	33
97	Telegraph Road west of Olive Road	64.7	292	92	29
98	Tico Road north of Ventura Avenue (SR 150)	56.6	46	14	5
99	Tierra Rejada Road east of Moorpark Freeway (SR 23)	71.8	1,526	483	153
100	Torrey Road south of Telegraph Road (SR 126)	56.9	49	16	5
101	Valley Vista Drive south of Calley Aurora	59.5	88	28	9
102	Ventura Avenue north of Canada Larga Road	57.5	57	18	6
103	Ventura Avenue north of Shell Road	60.2	105	33	10
104	Victoria Avenue south of Olivas Park Drive	73.8	2,386	755	239
105	Walnut Avenue north of Los Angeles Avenue (SR 118)	53.3	21	7	2
106	Wendy Drive north of Gerald Drive	63.6	229	72	23
107	Wood Road south of Hueneme Road	58.8	75	24	7
108	Wood Road south of East Fifth Street (SR 34)	67.8	601	190	60
109	Wooley Road west of Rice Avenue	68.4	694	219	69
110	Yerba Buena Road north of Pacific Coast Highway (SR 1)	49.4	9	3	1
<b>Freeways / Highways</b>					
111	SR 1 at Calleguas Creek	73.7	2,368	749	237
112	SR 1 at Seacliff Colony, Junction SR 101	66.9	488	154	49
113	SR 1 at Las Cruces, SR 101, Mobil Oil Pier	59.1	81	26	8
114	SR 23 at Grimes Canyon Road	69.9	987	312	99
115	SR 23 at Junction SR 126, Ventura Road	67.7	585	185	59
116	SR 33 at West Junction SR 150, Baldwin Road	66.7	465	147	47
117	SR 33 at Los Padres National Forest Boundary	55.5	35	11	4
118	SR 33 at Sespe Gorge Maintenance Station	51.0	13	4	1
119	SR 33 at Ventura/Santa Barbara County Line	53.9	25	8	2
120	SR 34 at Junction SR 118, Los Angeles Avenue	68.4	692	219	69
121	U.S. Highway 101 at Victoria Avenue	80.9	12,207	3,860	1221
122	U.S. Highway 101 at Ventura/Santa Barbara County Line	79.5	8,815	2,787	881

Corridor and Segment		Noise (dBA CNEL) at 50 feet from Roadway	Noise Contour Distance in Feet		
			60 dBA	65 dBA	70 dBA
123	SR 118 at Junction SR 232 (Westbound)	75.8	3,761	1,189	376
124	SR 118 at SR 34, Somis Road (Westbound)	72.5	1,787	565	179
125	SR 118 at Grimes Canyon Road	72.8	1,919	607	192
126	SR 118 at West Junction SR 23, Moorpark Avenue	71.7	1,475	466	147
127	SR 118 at East Junction SR 23, Spring Road	72.5	1,780	563	178
128	SR 150 at Santa Barbara/Ventura County Line	49.1	8	3	1
129	SR 150 at Junction SR 33 South (South)	63.0	197	62	20
130	SR 150 at Santa Paula North City Limit	59.0	80	25	8
131	SR 232 and Junction SR 118	65.8	381	120	38

Notes: SR = State Route; dBA = a-weighted decibels;  
 Gray shaded cells reflect roadway segments exceeding 60 dBA CNEL at 50 feet from the roadway centerline.  
 All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels.  
 Source: Modeled by Ascent Environmental in 2019; based on traffic data provided by GHD (2019).

**HAZ-9.3 Development Along Travel Routes**

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

**HAZ-9.4 Acoustical Analysis Required**

The County shall require an acoustical analysis by a qualified acoustical engineer for discretionary development involving noise exposure or noise generation in excess of the established standards. The analysis shall provide documentation of existing and projected noise levels at on-site and off-site receptors and shall recommend noise control measures for mitigating adverse impacts. (RDR)

**HAZ-9.5 Site and Building Design**



The County shall require discretionary development and County-initiated projects to comply with adopted noise standards through proper site and building design features, such as building location and orientation, setbacks, natural barriers and vegetation, and building construction. The County shall only consider sound walls if noise mitigation measures have been evaluated or integrated into the project and found infeasible. (RDR)

**HAZ-9.6 Airport Noise Compatibility**



The County shall use the aircraft noise analysis prepared for local airports or the noise contours from the current NBVC-Point Mugu Air Installations Compatible Use Zones (AICUZ) study, as most appropriate for a project location, as an accurate mapping of the long-term noise impact of the airport’s aviation activity. The County shall restrict new discretionary residential land uses to areas outside of the 60 decibel Community Noise Equivalence Level (dB CNEL) aircraft noise contour unless interior noise levels can be mitigated to meet a maximum 45 dB CNEL. (RDR)

## HAZ-9.7

### Noise Control Priorities

The priorities for noise control for discretionary development shall be as follows:

1. Reduction of noise emissions at the source.
2. Attenuation of sound transmission along its path, using barriers, landform modification, dense plantings, building orientation and placement, and the like.
3. Rejection of noise at the reception point using noise control building construction, hearing protection or other means.

(RDR)

## HAZ-9.8

### Implement Noise Control Measures for Traffic Noise

The County shall require noise control measures to be implemented along roadways for new discretionary development generating traffic noise if either of the following circumstances would exist:

- The discretionary development would result in traffic noise levels above a County noise compatibility standard stated in Policy HAZ 9.2 in an area where traffic noise levels, under existing conditions, do not exceed the County noise compatibility standard; or,
- The discretionary development would result in an increase in traffic noise levels of 3 dBA or greater in an area where traffic noise levels under existing conditions exceed a County noise compatibility standard stated in Policy HAZ 9.2.

Noise control measures may include increased vegetation, roadway pavement improvements and maintenance, and site and building design features. If such measures are not sufficient to reduce a new discretionary development's fair-share of traffic-generated noise at sensitive receptors, a sound wall barrier may be constructed. All feasible<sup>1</sup> noise reduction measures shall be implemented to ensure the development's fair-share of traffic-generated noise is reduced, consistent with Policy HAZ 9.2. (RDR)

EIR

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

### 7.10 Air Quality

Air quality is 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.

The 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. The Ventura County Air Pollution Control District (VCAPCD) adopted the 2016 Ventura County Air Quality Management Plan (AQMP) to outline the county's strategy for attaining the 2008 Federal 8-hour ozone standard by 2020, as required by the Clean Air Act Amendments of 1990 and applicable United States Environmental Protection Agency (U.S. EPA) clean air regulations.



*Goals, policies, and implementations addressing reduction in greenhouse gas (GHG) emissions and other climate change topics are addressed in Chapter 6, Conservation and Open Space Element.*

#### HAZ-10

To promote a high level of air quality in order to protect public health, safety, and welfare, and mitigate any adverse air quality impacts to the maximum extent feasible.

##### HAZ-10.1

###### **Air Pollutant Reduction**



The County shall strive to reduce air pollutants from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts. (MPSP, RDR, SO, IGC, PI, JP)

##### HAZ-10.2

###### **Air Quality Management Plan Consistency**

The County shall prohibit discretionary development that is inconsistent with the most recent adopted Air Quality Management Plan (AQMP), unless the Board of Supervisors adopts a statement of overriding considerations. (RDR)

##### HAZ-10.3

###### **Air Pollution Control District Rule and Permit Compliance**

The County shall ensure that discretionary development subject to Ventura County Air Pollution Control District (VCAPCD) permit authority complies with all applicable APCD rules and permit requirements, including the use of Best Available Control Technology (BACT) as determined by the VCAPCD. (RDR)

##### HAZ-10.4

###### **Engagement with Air Quality Management Plan**

When the Ventura County Air Pollution Control District (VCAPCD) updates the Air Quality Management Plan, the County shall actively engage continuously and throughout the process. (IGC)

- HAZ-10.5** **Air Pollution Impact Mitigation Measures for Discretionary Development**  
**HC CAP** The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce greenhouse gas (GHG) emissions. (RDR)
- HAZ-10.6** **Transportation Control Measures Programs**  
**HC CAP** The County shall continue to work with the Ventura County Air Pollution Control District (VCAPCD) and Ventura County Transportation Commission (VCTC) to develop and implement Transportation Control Measures (TCM) programs consistent with the APCD's Air Quality Management Program (AQMP) to facilitate public transit and alternative transportation modes within the county. (IGC, FB)
- HAZ-10.7** **Fuel Efficient County Vehicles**  
**CAP** When purchasing new County vehicles, the County shall give strong preference to fuel efficient vehicles, including the use of zero emission vehicles when feasible. (SO, FB)
- HAZ-10.8** **Alternative Transportation Modes**  
**HC CAP** The County shall promote alternative modes of transportation that reduce single-occupancy vehicle (SOV) travel and enhance "last-mile" transportation options to improve air quality. (IGC, JP, PI)
- HAZ-10.9** **Mitigation of Objectionable Odors**  
The County shall require that discretionary development which will create objectionable odors that could affect a substantial number of people are appropriately mitigated. The project, pursuant to state law, shall be required to operate in accordance with the Rules and Regulations of the Ventura County Air Pollution Control District (VCAPCD), with emphasis on Rule 51, Nuisance throughout the life of the permit. (RDR)
- HAZ-10.10** **Smoke-Free Environments**  
**HC** The County shall continue to designate, promote, and enforce smoke-free environments to reduce toxins in the air and exposure to second-hand smoke. (PI, SO)
- HAZ-10.11** **Air Quality Assessment Guidelines**  
In evaluating air quality impacts, the County shall consider total emissions from both stationary and mobile sources, as required by the California Environmental Quality Act. The County shall evaluate discretionary development for air quality impacts using the Air Quality Assessment Guidelines as adopted by the Ventura County Air Pollution Control District (APCD), except that emissions from APCD-permitted sources shall also be included in the analysis. The County shall revise the Initial Study Assessment Guides to implement this policy. (RDR)
- HAZ-10.12** **Conditions for Air Quality Impacts**  
**EJ** The County shall require that discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all feasible mitigation measures to avoid, minimize or compensate (offset) for the air quality impact. The use of innovative methods and technologies to minimize air pollution impacts shall be encourage in project design. (RDR)



### HAZ-10.13

EIR

#### Construction Air Pollutant Best Management Practices

Discretionary development projects that will generate construction-related air emissions shall be required by the County to incorporate best management practices (BMPs) to reduce emissions. These BMPs shall include the measures recommended by VCAPCD in its Air Quality Assessment Guidelines or otherwise to the extent applicable to the project. (RDR)

### HAZ-10.14

EIR

#### Fugitive Dust Best Management Practices

The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate appropriate BMPs to reduce emissions to be less than applicable thresholds. (RDR)

### HAZ-10.15

EIR

#### Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors

The County shall require discretionary development for land uses that include sensitive receptors be located at least 1,000 feet from any road with traffic volumes that exceed 50,000 vehicles per day. New sensitive receptor structures can be located within 1,000 feet from a new or existing road with traffic volumes that exceed 50,000 vehicles per day only if a project applicant first prepares a qualified, site-specific health risk assessment (HRA). The HRA shall be conducted in accordance with guidance from VCAPCD and approved by VCAPCD. If the HRA determines that a nearby sensitive receptor would be exposed to an incremental increase in cancer risk greater than 10 in 1 million, then design measures shall be incorporated to reduce the level of risk exposure to less than 10 in 1 million. No further action shall be required if an HRA demonstrates that the level of cancer risk would be less than 10 in 1 million. Project design features that may be considered in the HRA may include, but are not limited to: installing air intakes furthest away from the heavily traveled transportation corridor; installing air filtration (as part of mechanical ventilation systems or stand-alone air cleaner); using air filtration devices rated MERV-13 or higher; requiring ongoing maintenance plans for building HVAC air filtration systems; limiting window openings and window heights on building sides facing the heavily traveled transportation corridor; or permanently sealing windows so they don't open on the side of the building facing the heavily traveled transportation corridor; and installing vegetative barriers, considering height and cover thickness, to create a natural buffer between sensitive receptors and the emissions source. For purposes of this policy, "sensitive receptors" means 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. (RDR)

## 7.11 Increasing Temperatures

Temperature-related impacts from anthropogenic climate change are likely to affect the county in several ways. Increased average temperatures, along with more frequent extreme heat days and waves, will likely exacerbate existing high temperatures in developed areas that experience the phenomenon known as the urban heat island effect (UHIE). In built-up areas, vegetation is sparse, and roofs and pavement dominate the landscape, absorbing and retaining heat during daytime hours and releasing heat at night. Other human activities that contribute to the UHIE include combustion-engine vehicles and air conditioning. To help curb the UHIE in developed areas, the County will need to incorporate “green” and “cool” infrastructure into new and existing development. Examples of green infrastructure include trees and climate-appropriate landscaping for increased shade and reduced surface area of pavement. Ventura County will also need to incorporate cool pavement and cool roofs in new and existing development while also planting more shade trees in parking lots.

**HAZ-11** To improve resilience to increasing temperatures resulting from climate change.

### HAZ-11.1 **Critical Vulnerable Infrastructure**

**CAP**

The County shall identify and protect critical infrastructure locations that are vulnerable to damage from extreme heat. (SO, FB, PSR, IGC)

### HAZ-11.2 **Climate Change-Related Partnerships**

**CAP**

The County shall partner with Southern California Association of Governments (SCAG), utilities, nonprofit organizations and other entities to implement future and ongoing heat-related climate change initiatives. The County’s partnership in ongoing programs and future initiatives could include helping other organizations increase participation in existing programs through education and promotion, and by using and integrating them in County programs and activities, where feasible. (JP)

### HAZ-11.3 **Limit Impacts of Climate Change on Designated Disadvantaged Communities**

**EJ HC CAP**

The County shall work with public, private, and nonprofit partners to limit impacts of climate change on Designated Disadvantaged Communities by focusing planning efforts and interventions on communities with the highest need and ensuring representatives of these communities have a role in the decision-making process for directing climate change response. (MPSP, SO)

### HAZ-11.4 **Education and Outreach on Effects of Climate Change**

**EJ CAP**

The County shall support efforts of agencies and organizations that provide effective education and outreach to Designated Disadvantaged Communities on the effects of climate change, including increasing temperatures, wildfires, flooding, sea level rise, poor air quality, extreme weather events, disease prevention, and other public health effects. (PI)

### HAZ-11.5 **Outdoor Worker Protection**

**EJ HC CAP**

The County shall work with State and County health agencies and local organizations to provide educational programs and resources targeted at reducing the impacts of exposure to sun and heat. (ICG, JP, PI)

## 7. Hazards and Safety Element

### HAZ-11.6

EJ HC CAP

#### Accessible Cooling Centers

The County shall expand partnerships with local governments, non-government organizations, churches, and businesses to provide additional cooling centers, particularly in designated disadvantaged communities. (SO, IGC, JP, PI)

### HAZ-11.7

HC CAP

#### Green Building Design Features

The County shall encourage development to include new building designs or retrofits to improve building performance through strategic building design features, including to reduce energy usage, solar-reflective white roofs, solar panels, green roofs (vegetation on roofs), and battery storage for energy. (RDR)

### HAZ-11.8

CAP

#### Undergrounding Utilities

The County shall work with utility providers to underground overhead power lines (both existing and as part of discretionary development) to increase the resilience of the energy grid and reduce wildfire potential, especially in Existing Communities. (JP) [

### HAZ-11.9

HC CAP

#### Urban Greening

The County shall promote the use of urban greening techniques, such as cool pavement technology, parking lot shading, landscaping, and other methods to offset climate change impacts and reduce greenhouse gas emissions for discretionary development and County-initiated projects. (RDR, FB, SO)

### HAZ-11.10

CAP

#### Solar Photovoltaic Carports

The County shall promote the use of solar photovoltaic carports for discretionary development and County-initiated projects. (RDR)

### 7.12 Emergency Response

As demonstrated by several natural disasters in California in recent years, planning for access and evacuation is a key to protecting public health and safety and providing efficient access for first responders. In Ventura County, evacuation planning is an important aspect of preparing for a range of potential natural disasters, including wildfire, flooding, seismic, tsunami events.

In addition to policy on evacuation, this section covers the planning and placement of essential facilities. This is necessary to ensure that the first responders for the county are available and able to respond when disaster strikes.

Wildfires are fast-moving, complex and dynamic events. Evacuation decisions are complicated and directly impacted by changing conditions. Preparing static, pre-determined evacuation maps/routes are not effective as they do not take into account unforeseeable conditions such as fire rates of spread, fuel modeling, wind, topography, resource availability, viable transportation routes and the population at risk to include individuals with access and functional needs in the impacted area. Wildfire conditions change and evolve rapidly in unpredictable ways. Hence, the County utilizes a robust emergency notification system to provide timely instructional information to residents in an emergency. The VC Alert emergency notification system is a local emergency notification system that is used to send messages to landline telephones, cellular telephones, TTY/TTD devices, fax, email, and instant messaging services. VC Alert can send both text and recorded voice messages, and the text-to-speech engine is able to send notifications in multiple languages. When a wildfire poses a risk to life, property and/or the environment, the VC Alert system is used to send actionable evacuation information to residents to take action to save their lives. Every VC Alert message includes a phone number to the County Incident Information Hotline and the link to the [VCEmergency.com](http://VCEmergency.com) webpage where residents can receive real-time incident information showing an interactive map of fire perimeters, road closures, evacuation shelters, and more.

Policies and programs relating to wildfire hazard planning and response, including the location of new essential public facilities; emergency services/vehicle accessibility; collaboration between emergency service providers; adequate water supply, fire flow, access, and response times for firefighting purposes; fire station locations, facilities, public services and infrastructure availability; fire protection standards for new development; mutual training/aid agreements; and response times can be found in the Public Facilities and Services Element. Additional information about fire hazard planning can be found in the 2040 General Plan Background Report as well as the following sources, as may be amended:

- [Ventura County Multi-Hazard Mitigation Plan](#);
- Ventura County Fire Protection District Unit Strategic Protection Plan;
- Ventura County Fire Protection District ordinances and fire prevention guidelines;
- Ojai Valley Fire Safe Council Community Wildfire Protection Plan;
- Santa Monica Mountains Community Wildfire Protection Plan; and
- Ventura County Fire Protection District Personal Action Plan.

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Additional specific information can be found in the following sources, as may be amended:

- Historical data regarding wildfires in Ventura County can be found in Section 11.3 of the Wildfire Hazards chapter of the 2040 General Plan Background Report, and the [Ventura County Multi-Hazard Mitigation Plan](https://www.ReadyVenturaCounty.org/) at <https://www.ReadyVenturaCounty.org/>.
- Maps of the location and extent of fire hazard severity zones and fire hazards areas by local/state/federal responsibility area can be found in Section 11.3 of the Wildfire Hazards chapter of the 2040 General Plan Background Report.
- [The Ventura County Multi-Hazard Mitigation Plan](https://www.ReadyVenturaCounty.org/) includes an analysis of the potential level of impact of wildfire to the County's landmass, population, residential structures, and critical facilities/infrastructure in the high and very high fire severity zones. This plan can be found at <https://www.ReadyVenturaCounty.org/>.
- A description of the local, state, and federal agencies with responsibility for fire protection can be found in the Ojai Valley Fire Safe Council Community Wildfire Protection Plan at <https://www.firesafeojai.org/>, and the Ventura County Unit Strategic Fire Plan. This plan is available by request from the Ventura County Fire Protection District.
- Development standards in SRAs and VHFHSZs that meet SRA Fire Safe Regulations and regulations pertaining to Fire Hazard Reduction Around Buildings and Structures can be found in Section 11.3 of the Wildfire Hazards chapter of the 2040 General Plan Background Report, and Ventura County Fire Protection District Ordinance 29 Fire Apparatus Access Code; Ventura County Fire Protection District Ordinance 31 Fire Code (including Section W106.1 Plans); Ventura County Fire Protection District Fire Hazard Reduction Program Standards and Guidelines, including Standard 501: Fire Apparatus Access; Standard 502: Premises Identification; Standard 515: Defensible Space and Fuel Modification Zones; and Standard 14.5.3: Fire Hydrants. Ventura County Fire Protection District ordinances, standards, and guidelines can be found on the Ventura County Fire Protection District website. The [Ventura County Multi-Hazard Mitigation Plan](https://www.ReadyVenturaCounty.org/) on the <https://www.ReadyVenturaCounty.org/> website also includes a recommended potential mitigation action pertaining to fuel modification plans for new development (Mitigation Action Numbers OA 20 in the 2015 Plan), and for elderly, disabled, and low-income property owners (Mitigation Action Numbers OA 19 in the 2015 Plan).
- Fire protection standards regarding fire flow requirements in areas without adequate and reliable water supply systems can be found in Ventura County Fire Protection District Ordinance 31, Appendix B, which is posted on the Ventura County Fire Protection District website.
- Vegetation hazard mitigation and maintenance measures can be found in the Ventura County Unit Strategic Fire Plan. This plan is available by request from the Ventura County Fire Protection District. The [Ventura County Multi-Hazard Mitigation Plan](https://www.ReadyVenturaCounty.org/) also includes information pertaining to vegetation hazard mitigation and maintenance measures (Mitigation Action Number OA 21 in the 2015 Plan) on the [ReadyVenturaCounty.org](https://www.ReadyVenturaCounty.org/) website.

- Standards pertaining to vegetative clearance on public roadways can be found in Ventura County Fire Protection District Ordinance 31 Fire Code (Section W105.3 Clearance of Brush or Vegetative Growth from Roadways), which is posted on the Ventura County Fire Protection District website. The Ventura County Unit Strategic Fire Plan describes annual fuel bed maintenance activities by the Fire District for fire, utility, and ranch roads. This maintenance includes assessment, repair, grading, and roadside brush removal. The Unit Plan is available by request from the Ventura County Fire Protection District.
- Information pertaining to community fire breaks can be found in the [Ventura County Multi-Hazard Mitigation Plan](#) (Mitigation Actions Numbers OA 20 and OA 21 in the 2015 Plan) on the <https://www.ReadyVenturaCounty.org/> website.
- Information pertaining to emergency response performance standards can be found in the Ventura County Fire Protection District Regional Fire Services Standards of Cover Analysis. This analysis is available by request from the Ventura County Fire Protection District.
- Public education and outreach regarding defensible space and evacuation can be found in VCFD Ordinance 31 Fire Code and the Ventura County Fire Protection District Fire Hazard Reduction Program links on the Ventura County Fire Protection District website.



*Goals, policies, and implementation programs concerning public safety service provision can be found in Chapter 5, Public Facilities, Services, and Infrastructure Element.*

### HAZ-12

To provide for the safe and efficient evacuation of residents in times of need.  
(Source: New Goal)

#### HAZ-12.1 Access Points for New Subdivisions

The County shall require new residential subdivisions to provide not less than two means of access for emergency vehicles and resident evacuation. A deviation from this policy is only allowed if a single proposed access road conforms to the County Road Standards, Ventura County Fire Department Access Standards, and when the County Fire Chief approves the proposed deviation. (RDR)

#### HAZ-12.2 Countywide Hazard Mitigation Planning

The County shall continue to maintain and periodically update the Ventura County Emergency Operations Plan and the [Ventura County Hazard Mitigation Plan](#) covering hazards in the county. (MPSP, IGC, PI)

### HAZ-12.3

#### **Siting of Essential Facilities**

The County should not site essential facilities, public safety or emergency service facilities, special occupancy structures, or hazardous materials storage facilities in areas subject to the following hazard areas, as defined in the [County Multi-Hazard Mitigation Plan](#) (Ventura County Sheriff's Office of Emergency Services), unless the structure is designed to mitigate the hazard:

- in tsunami hazard areas, as defined in the Tsunami Operational Area Response Guide (Ventura County Sheriff's Office of Emergency Services);
- geologic or seismic hazard areas;
- areas subject to liquefaction, landslide, or seiche hazards; and
- subsidence or hydroconsolidation.

(RDR)

### HAZ-12.4

#### **Emergency Water and Sanitation Education**

The County shall determine best practices for water and sanitation and other measures for coping with emergencies of multiple days' duration and shall provide guidance to the public based on the findings. (SO, PI)

### HAZ-12.5

#### **Alert and Warning Systems**

The County shall continue to maintain a comprehensive, coordinated and robust alert and warning program to communicate threats and hazards to residents before, during and after an emergency. (SO)

### 7.13 Implementation Programs

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>A Develop and Implement Educational Programs for Wildfire Resilience</b>                      In coordination with federal, state, and local partners (e.g., CAL FIRE), the County shall update and maintain educational programs related to such issues as:</p> <ul style="list-style-type: none"> <li>▪ Learning how to recognize the first signs of fire and take appropriate action;</li> <li>▪ Living with the risks of fire within the wildland/urban interface; and</li> <li>▪ Methods of improving the resilience of homes and other structures.</li> </ul> <p style="text-align: center;"><b>CAP</b></p>	HAZ-1.1 HAZ-1.2 HAZ -1.6	FD <hr/> CEO	■				■
<p><b>B Wildfire Vulnerability Assessment and Mapping</b>                      In collaboration with the federal, state, and local partners (e.g., CAL FIRE), U.S. Forest Service, other agencies involved in wildfire response planning), the County shall update and map new locations that may be vulnerable to wildfire hazards including: damage to electrical, transportation, and communication infrastructure; increased rates of erosion, landslide, and water quality degradation; loss of residential, commercial, and industrial structures; and ecological disturbance.</p> <p style="text-align: center;"><b>CAP</b></p>	HAZ-1.6 HAZ-1.8 HAZ-12.2	RMA <hr/> IT FD PWA		■			■



## 7. Hazards and Safety Element

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<b>C Post-Fire Assessments</b> Directly following a wildfire disaster, the County shall conduct a post-fire assessment to identify vulnerabilities and projects that address vulnerabilities. The goal of the post-fire assessment shall be to protect public safety, enhance access and evacuation, and reestablish essential functional needs to communities and ecosystems to minimize flooding, protect water quality, reduce landslide and debris flow occurrence, and limit pollution.	HAZ-1.7	FD <hr/> VCISO RMA PWA CEO GSA					■
<b>D Dam Failure Contingency Plans</b> The County Sheriff's Department, Office of Emergency Services shall review and revise the Dam Failure Contingency section of the <a href="#">Multi-Hazard Mitigation Plan</a> every five years and continue to provide public information on dam failure preparedness and response.	HAZ-2.6 HAZ-12.2	VCISO PWA <hr/> n/a					■
<b>E Update Tsunami Information</b> The County shall update planning documents, maps, and the Operational Area Tsunami Evacuation Plan, when necessary to reflect the most current tsunami information, and identify actions necessary to mitigate property damage, and maintain evacuation readiness. (MPSP, SO)	HAZ-2.7 HAZ-12.2	VCISO <hr/> HCA FD					■

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>F Develop Climate Change Impact Assessment</b>                      The County shall work with the Naval Base Ventura County (NBVC), other jurisdictions, the Oxnard Harbor District (OHD), California Department of Conservation, and the Department of Defense (DOD) to develop a Climate Change Impact Assessment that addresses issues related to climate change and military installations, including sea level rise, wildfires, and stormwater runoff intensities.</p> <p><b>CAP</b></p>	HAZ-3.1 HAZ-3.2 HAZ-11.1	PWA <hr/> RMA CEO		■			
<p><b>G Communication Program for Property Owners at Risk from Sea Level Rise</b>                      The County shall seek funding to prepare and implement a communication program that periodically provides updates to the Board of Supervisors, and other stakeholders regarding impacts from sea level rise and planning decisions to address those impacts.</p> <p><b>CAP</b></p>	HAZ-3.1 HAZ-3.3	RMA <hr/> CEO	■				■
<p><b>H Sea Level Rise Analysis in Siting and Design of New Development</b>                      The County shall consider the feasibility of amending the Non-Coastal Zoning Ordinance and Coastal Zoning Ordinance to require technical analysis of projected sea level rise exposure for the siting and design of new discretionary development.</p> <p><b>CAP</b></p>	HAZ-3.1	RMA <hr/> n/a		■			

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Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<b>I Estuaries, Wetlands, and Groundwater Basins Resilience</b> The County shall coordinate with regional stakeholders to assess vulnerabilities from the effects of, and opportunities to enhance the resiliency to, sea level rise on estuaries, wetlands, and groundwater basins. This assessment should consider factors that influence the conditions of an estuary or wetland, including sea level rise, rainfall, surface heat budget, wind, and ocean acidification. CAP	HAZ-3.1	RMA n/a					■
<b>J Hazardous Materials Business Plan and Hazardous Materials Response Plans</b> The County shall continue to require Hazardous Materials Business Plans and Hazardous Materials Response Plans for any business which handles hazardous material to ensure that plans for emergency response to a release or threatened release of a hazardous material and/or waste are maintained and monitored. EJ	HAZ-5.1 HAZ-5.2 HAZ-5.3 HAZ-5.5 HAZ-5.6 HAZ-5.7 HAZ-5.8	RMA(EHD) FD	■	■	■		■
<b>K Marine Oil Spill Response Planning</b> For County facilities that could potentially be the source of a marine oil spill or onshore oil spill, the County shall develop, exercise, review, and share their prevention and response plans with regulatory and emergency agencies. The County shall also continue to participate in the California Department of Fish and Wildlife Office of Spill Prevention and Response Area Contingency Plan process.	HAZ-7.1	VCSSO FD OES RMA					■

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>L Alert and Warning System Implementation</b>                      The VC Alert Emergency Notification System shall be used to provide timely instructional information to residents in an emergency. The County shall also continue to engage in outreach efforts to inform the public about the VC Alert System such as distributing printed informational materials at County- and city-sponsored community events and meetings. Furthermore, the County shall maintain and update an incident webpage to serve as a single, central location for residents to receive real-time emergency information during an emergency. The VCEmergency.com website provides the public with real-time incident information such as evacuation locations, road closures, human and animal evacuation shelters, fire perimeters, and more.</p>	HAZ-12.5	VCISO (OES) <hr/> FD					■
<p><b>M Update Coastal Area Signage</b>                      The County shall update coastal and beach signage, when necessary, to identify appropriate public access locations to the beach, coastal areas, and wetlands near Point Mugu so as not to breach military security.</p>	HAZ-8.1	PWA <hr/> n/a					■
<p><b>N Frequency Spectrum Areas of Concern</b>                      The County shall work with Naval Base Ventura County (NBVC) to define criteria that can be used to determine when a discretionary project involving the use of the radio frequency spectrum that are close to military channels require review and coordination with the Navy to ensure that radio frequencies do not disrupt NBVC communications with aircraft.</p>	HAZ-8.4	RMA <hr/> n/a					■

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Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>O Solar Concentration Restriction</b>                      The County shall modify the NCZO and CZO, if necessary, to prohibit the placement and use of facilities that use solar concentration for generation of commercial power that could generate glare and potential to disable pilots and impact flight or test operations at Naval Base Ventura County.</p>	HAZ-8.5	RMA AIR	■				
<p><b>P Identify Critical Infrastructure Vulnerable to Extreme Heat</b>                      The County shall map locations of county-owned facilities and infrastructure that may be vulnerable to the effects of extreme heat. When necessary, the County will develop a plan to upgrade such infrastructure to be more resilient to periods of high heat, which may include the use of heat-tolerant, reflective, or other resilient types of materials.</p> <p><b>CAP</b></p>	HAZ-11.1	PWA RMA		■			
<p><b>Q Standards for Solar Photovoltaic (PV) Carports in County Lots</b>                      The County shall establish feasible standards for inclusion of solar PV carports in County-owned parking lots.</p> <p><b>CAP</b></p>	HAZ-11.1	PWA RMA GSA	■				
<p><b>R Adaptation Grant Funding</b>                      The County shall apply for grant funding for climate change adaptation planning efforts from available private and public sources.</p> <p><b>EJ HC CAP</b></p>	HAZ-11.2 HAZ-11.3 HAZ-11.4 HAZ-11.7 HAZ-11.8	PWA RMA GSA					■

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>S Extreme Heat Education and Outreach</b>                      The County shall provide multilingual education and outreach to residents and businesses to publicize the symptoms and dangers of heat-related illness, cooling center locations, how to sign up for the Ready Ventura County VC Alert Program, worker-related protections, and practical methods for preventing heat-related illness during periods of high heat.</p> <p><b>EJ HC CAP</b></p>	HAZ-11.3 HAZ-11.4 HAZ-11.5	HSA <hr/> CEO					■
<p><b>T Cool Roof Ordinance</b>                      The County shall adopt a Cool Roof Ordinance that exceeds the prescriptive cool roof requirements of the 2019 California Building Energy Efficiency Standard for Residential and Nonresidential Buildings by 25 percent (California Energy Code). Under a Cool Roof Ordinance, the County would require new construction to replace or re-coat 2,500 square feet for nonresidential and 1,250 square feet of roof space for residential buildings, or 72.5 percent or more of roofs.</p> <p><b>HC CAP</b></p>	HAZ-11.6	RMA <hr/> n/a					■
<p><b>U Incentive Program for Passive Solar Home Design and Use of Green Roofs and Rooftop Gardens</b>                      The County shall develop incentive programs to promote passive solar home design and the use of green roofs and rooftop gardens when feasible. The program shall include but may not be limited to, permit streamlining and permit fee reductions to apply passive solar home design to future residential buildings.</p> <p><b>HC CAP</b></p>	HAZ-11.6 HAZ-11.8	RMA <hr/> CEO					■

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Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<b>V Cool Pavements Standards</b> The County shall incorporate cool pavement standards into the County’s development standards for County and private development projects, in both new construction and changes to existing on-site paved surface areas (e.g., parking lots, private roadways, other hardscapes). HC CAP	HAZ-11.6 HAZ-11.7	PWA RMA GSA		■			
<b>W Incentive Programs for Solar Photovoltaic (PV) Carports</b> The County shall establish incentive programs, which may include rebate programs, permit fee reductions, and tax deductions, to incentivize the installation of solar photovoltaic (PV) carports in existing and future parking lots. CAP	HAZ-11.10	RMA n/a		■			
<b>X Countywide Hazard Mitigation Plan</b> The County Sheriff’s Office of Emergency Services (OES) shall continue to maintain and update the <a href="#">Ventura County Multi-Hazard Mitigation Plan</a> every five years and update the Ventura County Emergency Operations Plan every three years. Updates will include including mitigation measures and preparedness, response, and recovery strategies for hazards identified in this Element. To the extent feasible, County agencies shall, and other public agencies are encouraged to, participate in joint emergency planning and response training, and cooperatively respond to emergencies when they occur.	HAZ-12.2	VCISO HCA FD PWA		■			■

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>Y Construction Air Pollutant Best Management Practices</b></p> <p>Discretionary development projects that will generate construction-related air emissions shall be required to include the following types of emission reduction measures and potentially others, as recommended by VCAPCD in its Air Quality Assessment Guidelines or otherwise, to the extent applicable to the project as determined by the County: maintaining equipment per manufacturer specifications; lengthening construction duration to minimize number of vehicle and equipment operating at the same time during the summer months; use of Tier 3 at a minimum, or Tier 4 if commercially available diesel engines in all off-road construction diesel equipment; and, if feasible<sup>2</sup>using electric-powered or other alternative fueled equipment in place of diesel powered equipment..</p> <p><b>EIR</b></p>	HAZ-10.13	RMA					■
		n/a					
<p><b>Z Fugitive Dust Best Management Practices</b></p> <p>Discretionary development projects that will generate construction-related fugitive dust emissions shall be required by the County to include dust reduction measures recommended by VCAPCD in its Air Quality Assessment Guidelines, or otherwise, such as:</p> <ul style="list-style-type: none"> <li>■ The area disturbed by clearing, grading, earth moving, or excavation</li> </ul>	HAZ-10.14	RMA					■
		n/a					

<sup>2</sup> “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines section 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA



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Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
	<p>operations shall be minimized to prevent excess amounts of dust.</p> <ul style="list-style-type: none"> <li>■ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.</li> <li>■ Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.</li> <li>■ Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:                             <ul style="list-style-type: none"> <li>■ All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114.</li> <li>■ All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.</li> </ul> </li> <li>■ Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and</li> </ul>						

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p>environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.</p> <ul style="list-style-type: none"> <li>■ Signs shall be posted on-site limiting traffic to 15 miles per hour or less.</li> <li>■ During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with VCAPCD when winds are excessive.</li> <li>■ Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.</li> <li>■ Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.</li> </ul>							

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Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<b>AA Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development</b> To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential development through amendments to the Ventura County Building Code. This program shall also be extended to new commercial development including but not limited to offices, retail buildings, and hotels. The County may exempt new commercial development from these requirements upon making findings based on substantial evidence that the use of natural gas is critical to business operations, and that it is not feasible <sup>3</sup> to replace critical appliances or equipment with electricity powered equivalents. This program shall be completed no later than 2023. EIR	COS-10.1, COS-10.2, COS-10.3, COS-10.4	RMA	■				
		n/a					
<b>BB Building Energy Saving Ordinance for Industrial Buildings</b> To address GHG emissions associated with electricity consumption by industrial buildings, which were not quantified in the GHG Inventory and Forecasting due to utility privacy rules, the County shall implement a program to adopt a Building Energy Saving Ordinance, no later than 2025, for industrial buildings over 25,000 square feet in size, modeled after the local benchmarking ordinances adopted in other	COS-10.1, COS-10.2, COS-10.3, COS-10.4	RMA	■				■
		n/a					

<sup>3</sup> “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p>local jurisdictions in California (CEC 2019). The County shall prepare reports showing the energy performance of industrial buildings relative to similar buildings in California and the United States and make these reports available to the public by request. The County, through its building department shall provide recommendations on energy efficiency retrofits and green building strategies to improve energy performance to property owners and tenants subject to the reporting requirements.</p> <p><b>EIR</b></p>							
<p><b>CC</b> <b>Revise the Construction Noise Threshold Criteria and Control Plan</b></p> <p>The County shall revise the Construction Noise Threshold Criteria and Control Plan within one year of 2040 General Plan adoption to consider all potential vibration-inducing activities and include various measures, setback distances, precautions, monitoring programs, and alternative methods to traditional construction activities with the potential to result in structural damage or excessive groundborne noise. Items that shall be addressed in the plan include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>■ Ground vibration-producing activities, such as pile driving and blasting, shall be limited to the daytime hours between 7:00 a.m. to 7:00 p.m. on weekdays or 9:00 a.m. to 7:00 p.m. on weekends and holidays.</li> <li>■ If pile driving is used, pile holes shall be predrilled to the maximum feasible depth to reduce the number of blows required to seat a pile.</li> <li>■ All construction equipment on construction sites shall be operated as far away from vibration-sensitive sites as reasonably possible.</li> <li>■ Earthmoving, blasting and ground-impacting operations shall be phased</li> </ul>	HAZ-9.2	RMA n/a	■				■

## 7. Hazards and Safety Element

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
	<p>so as not to occur simultaneously in areas close to sensitive receptors, to the extent feasible. The total vibration level produced could be significantly less when each vibration source is operated at separate times.</p> <ul style="list-style-type: none"> <li>Minimum setback requirements for different types of ground vibration-producing activities (e.g., pile driving and blasting) for the purpose of preventing damage to nearby structures shall be established. Factors to be considered include the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the fragility/resiliency of the nearby structures. Established setback requirements (i.e., 100 feet) can be breached if a project-specific, site specific analysis is conducted by a qualified geotechnical engineer or ground vibration specialist that indicates that no structural damage would occur at nearby buildings or structures.</li> <li>Minimum setback requirements for different types of ground vibration producing activities (e.g., pile driving and blasting) for the purpose of preventing negative human response shall be established based on the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the type of sensitive receptor. Established setback requirements (i.e., 300 feet) can be breached only if a project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess</li> </ul>						

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p>of 80 VdB, and ground vibration measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of 80 VdB.</p> <ul style="list-style-type: none"> <li>All vibration-inducing activity within the distance parameters described above shall be monitored and documented for ground vibration noise and vibration noise levels at the nearest sensitive land use and associated recorded data submitted to Ventura County so as not to exceed the recommended FTA levels.</li> <li>Alternatives to traditional pile driving (e.g., sonic pile driving, jetting, cast-in-place or auger cast piles, nondisplacement piles, pile cushioning, torque or hydraulic piles) shall be considered and implemented where feasible <sup>4</sup>to reduce vibration levels.</li> </ul> <p><b>EIR</b></p>							
<p><b>DD Coordinated Identification of Dwellings in a State Responsibility or Very High Fire Hazard Severity Zone</b></p> <p>Prior to July 1, 2021, and every five (5) years thereafter, the County Fire Protection District shall assist the California Board of Forestry and Fire Protection in surveying the County and preparing a list identifying all existing subdivisions over 30 dwellings located in a state responsibility area or a</p>	<p>HAZ-1.4 HAZ-1.5</p>	<p>FD</p> <hr/> <p>n/a</p>	<p>■</p>				

<sup>4</sup> “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

## 7. Hazards and Safety Element

Programs	Implements Which Policy(ies)	Responsible	2020 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p>very high fire hazard severity zone, identified pursuant to Section 51178 of the Government Code, without a secondary egress route and that are at significant fire risk. The County shall consult and assist the California Board of Forestry and Fire Protection and with the California State Fire Marshall to develop recommendations to improve fire safety in the identified subdivisions.</p>							

*Please see the next page.*