



Ventura County | 2023

# Community Wildfire Protection Plan



## TABLE OF CONTENTS

<b>Preface:</b>	<b>What is a Community Wildfire Protection Plan? .....</b>	<b>1</b>
<b>Section I:</b>	<b>VENTURA COUNTY COMMUNITY OVERVIEW .....</b>	<b>2</b>
<b>A.</b>	<b>Collaboration .....</b>	<b>2</b>
	CWPP Development Partners .....	2
	Collaboration Case Study: Bren School Survey.....	4
<b>B.</b>	<b>Fire Protection Programs.....</b>	<b>4</b>
	Firewise.....	5
	Certified Wildfire Mitigation Specialist.....	5
	Ready, Set, Go!.....	5
	FIRESCOPE .....	5
<b>C.</b>	<b>Environment and Fire History .....</b>	<b>6</b>
	Topography.....	6
	Climate and Weather.....	6
	Vegetation and Wildlife.....	8
	Surface Fuel Types .....	12
	Fuel Beds.....	14
	Fire Hazard Severity Zones.....	16
	Vegetation Treatments .....	23
	Cultural Practices .....	24
	Fire History.....	24
	Community Impacts Due To Recent Fires .....	31
	Ventura County Social Vulnerability .....	32
<b>D.</b>	<b>Economy and Built Infrastructure .....</b>	<b>34</b>
	Tourism.....	34
	Agriculture.....	34
	Infrastructure .....	34
	Economic Impacts of Wildfire .....	34
	Firefighting Resources .....	35
<b>E.</b>	<b>Probability of Future Risk.....</b>	<b>40</b>
	Ventura County Multi-Jurisdictional Hazard Mitigation Plan Risk Assessment.....	40
	VRFSC Wildfire Analysis and Roadway Mitigation Prioritization.....	41
<b>Section II:</b>	<b>LOCAL COMMUNITY SNAPSHOT .....</b>	<b>42</b>
<b>A.</b>	<b>City of Camarillo.....</b>	<b>42</b>
<b>B.</b>	<b>City of Fillmore .....</b>	<b>43</b>
<b>C.</b>	<b>City of Moorpark.....</b>	<b>43</b>

<b>D. City of Ojai .....</b>	<b>44</b>
<b>E. City of Oxnard.....</b>	<b>44</b>
<b>F. City of Port Hueneme .....</b>	<b>45</b>
<b>G. City of Santa Paula .....</b>	<b>45</b>
<b>H. City of Simi Valley .....</b>	<b>45</b>
<b>I. City of Thousand Oaks .....</b>	<b>46</b>
<b>J. City of Ventura.....</b>	<b>46</b>
<b>K. Unincorporated Ventura County .....</b>	<b>47</b>
Community of Bell Canyon .....	48
Community of Piru.....	49
Community of Oak Park .....	49
Rancho Ventura Conservation Trust .....	49
Ventura Land Trust .....	50
<b>Section III: PRIORITY ACTIONS .....</b>	<b>51</b>
<b>A. Community Engagement and Education .....</b>	<b>51</b>
Ongoing projects .....	51
Future Projects.....	53
<b>B. Structural Hardening.....</b>	<b>54</b>
Ongoing Projects.....	54
Future Projects.....	55
<b>C. Defensible Space.....</b>	<b>55</b>
Ongoing Projects.....	56
Future Projects.....	56
<b>D. Fuels Reduction .....</b>	<b>57</b>
Ongoing Projects.....	57
Future Projects.....	57
<b>E. Evacuation and Emergency Response .....</b>	<b>58</b>
Ongoing Projects.....	58
Future Projects.....	59
<b>Section IV: SIGNATURES.....</b>	<b>60</b>
<b>Section V: APPENDICES .....</b>	<b>62</b>

## TABLES

Table 1	Partners.....	2
Table 2	Estimated Land Cover in Ventura County (2020).....	10
Table 3	Surface Fuel Types in Ventura County <sup>1</sup> .....	12
Table 4	Largest Fires in Ventura County 1990-2022 (over 2,000 acres).....	26
Table 5	Hazard Risk Ranking.....	41
Table 6	Ventura County Unincorporated Communities.....	48

## FIGURES

Figure 1	Santa Ana Winds .....	8
Figure 2	Estimated Vegetation and Other Land Cover Types in Ventura County.....	11
Figure 3	Ventura County Fuel Beds .....	15
Figure 4	General Plan Land Use in Unincorporated Ventura County.....	17
Figure 5	Ventura County Fire Hazard Severity Zones .....	18
Figure 6	Defensible Space Guidelines .....	21
Figure 7	Ventura County Wildland Urban Interface .....	22
Figure 8	Thousands of Acres Burned in Ventura County from 1900 to 2019 .....	27
Figure 9	Ventura County Fire History 1900-1940 .....	28
Figure 10	Ventura County Fire History 1950-2000 .....	29
Figure 11	Ventura Fire History 2000-2021 ( $\geq$ 30,000 acres).....	30
Figure 12	Social Vulnerability and Priority Populations in the County.....	33
Figure 13	Ventura County Fire Facility Locations .....	38



*This page intentionally left blank.*

# PREFACE: WHAT IS A COMMUNITY WILDFIRE PROTECTION PLAN?

The Healthy Forests Restoration Act of 2003 (HFRA) encourages communities to develop a Community Wildfire Protection Plan (CWPP) to reduce their wildland fire risk and promote healthier forested ecosystems. Signed into law as a response to the apparent and potentially catastrophic hazards brought about by forest health issues, the HFRA aims at improving forest conditions to protect communities, habitats, and resources. Due to the wide range of resource-impacts associated with wildfire, the HFRA places great importance on improving the review process and implementation of hazardous fuel reduction activities.

A CWPP, as defined in Title I of the HFRA, is a blueprint for preparedness at the neighborhood level. It organizes a community's efforts to plan and protect itself against wildfire, and empowers citizens to move in a cohesive, common direction. This CWPP was developed collaboratively by citizens, and federal, state, and local management agencies. The key goals of the Ventura County CWPP are to:

- Align with the County and California Department of Forestry and Fire Protection (CAL FIRE) cohesive pre-fire strategy, which includes educating homeowners and building understanding of wildland fire, ensuring defensible space clearing and structure hardening, safeguarding communities through fuels treatment, protecting evacuation corridors, and preparing residents to evacuate when necessary.
- Identify and prioritize areas for hazardous fuel reduction treatment.
- Recommend the types and methods of treatment that will protect the community.
- Recommend measures to reduce the ignitability of structures throughout the area addressed by the plan.
- Identify other fire prevention and preparation measures that are sensible and effective for this community.

*Note: The CWPP is intended to provide guidance, education, and be a mechanism to receive grant funding. This plan will not directly reduce the risk of wildfire in a community. This plan is not to be construed as indicative of project "activity" as defined under the "Community Guide to the California Environmental Quality Act, Chapter Three, Projects Subject to CEQA." Any actual project activities undertaken that meet this definition of project activity and are undertaken by the CWPP participants or agencies listed shall meet with local, state, and federal environmental compliance and grant funding requirements.*

The Ventura Regional Fire Safe Council (VRFSC) produced this report in partnership with Rincon Consultants, Inc. Funding is provided by the Cooperative Fire Program of the U.S. Forest Service, Department of Agriculture, Pacific Southwest Region, through the California Fire Safe Council. In accordance with federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. Additional funding for this project provided by the California Department of Forestry and Fire Protection's Fire Prevention Program as part of the California Climate Investments Program.

*The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of California Fire Safe Council, the U.S Forest Service or the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by California Fire Safe Council, the U.S. Forest Service, or the U.S. Government.*

# SECTION I: VENTURA COUNTY COMMUNITY OVERVIEW

This CWPP has been developed for Ventura County, California. This section provides information about collaboration on the CWPP, fire history and impacts in the county, and the probability of future risk. The last CWPP for Ventura County was updated in 2010. Since then, the area has experienced what, at the time, was the largest wildfire in the states' history, the 2017 Thomas Fire. This was soon followed by several other massive fires that included the 2018 Woolsey Fire and the 2018 Hill Fire. These deadly wildfires threatened lives, property, and the health of the Ventura County community while destroying hundreds of homes. These massive, wind-driven wildfires have posed extreme challenges for emergency responders and have highlighted the need for the Ventura County community to adapt to the ever-changing climate. Unlike the wildfires of just five years ago, these "mega-fires" have become such a significant concern that the U.S. Forest Service, the Federal Government, as well as, local and regional jurisdictions, the scientific, academic, research communities, and environmental and social justice community-based organizations, have united in an effort to address this new and ever-growing challenge through adaptive management strategies and an inclusive process.

From the valuable agricultural resources to the natural beauty, from the fair climate, to flourishing economic development, Ventura County is a unique and treasured place that has the capacity to withstand crisis and rebound stronger, as demonstrated from the Thomas and Woolsey Fires.

## A. COLLABORATION

### CWPP DEVELOPMENT PARTNERS

Collaboration is critical to increase the Ventura County community's resilience to climate change impacts such as the increasing frequency and intensity of wildfire. The VRFSC led the development of this CWPP with guidance and support from several partners. This CWPP was developed in partnership with the organizations listed in Table 1.

**Table 1 Partners**

Organization	Roles/Responsibilities
Ventura Regional Fire Safe Council	CWPP Draft Lead
Bell Canyon Fire Safe Council	Local Fire Safe Council
Oak Park Fire Safe Council	Local Fire Safe Council
Ojai Fire Safe Council	Local Fire Safe Council
Ventu Park Fire Safe Council	Local Fire Safe Council
Ventura County Resource Conservation District	Community Outreach

Organization	Roles/Responsibilities
Ventura County Fire Department/Ventura County Fire Protection District	Mapping, Communication, County Fire Standards, Fuels Treatment, Defensible Space
Ventura County Sheriff's Office OES	Multi-Hazard Mitigation Plan, Evacuation
CAL FIRE	CWPP Development and Review
American Red Cross, Central Coast Region	Evacuation, Community Outreach
Ventura County Human Services Agency	Evacuation, Needs Assessment
Ventura County Transportation Commission	Evacuation
Home Hardening Coalition	Structural Hardening and Defensible Space
Invasive Plant Council	Fuels Treatment
Prescribed Burn Association	Fuels Treatment
Prescribed Grazing Association	Fuels Treatment
California Department of Transportation	Fuels Treatment
Ventura City Fire Department	Local CWPP needs, Fire Resources
USDA Forest Service	Fuels Treatment
California State Parks	Fuels Treatment
Ojai Valley Land Conservancy	Local CWPP needs
Conejo Open Space Conservancy	Local CWPP needs
Rancho Ventura Conservation Trust	Local CWPP needs
Ventura Land Trust	Local CWPP needs
Westside Community Council	Local CWPP needs
City of Santa Paula	Local CWPP needs
City of Fillmore, Fillmore Fire Department	Local CWPP needs, Fire Resources
Piru Neighborhood Council	Local CWPP needs
Ventura County Watershed Protection District	Fuels Reduction
Veteran's Emergency Technical Services	Mapping
County of Ventura Planning Division	General Plan, Local Coastal Program, Zoning Ordinances (Habitat Connectivity and Wildfire Corridor) Area Plans and other land use planning guidance documents
City of Oxnard Fire Department	Fire Resources

Organization	Roles/Responsibilities
University of California, Santa Barbara, Bren School of Environmental Science & Management	Equity-focused Community Engagement
Rincon Consultants, Inc.	CWPP Finalization

## COLLABORATION CASE STUDY: BREN SCHOOL SURVEY

VRFSC partnered with the University of California, Santa Barbara Bren School of Environmental Science & Management to increase the equity in wildfire planning. A team of six masters level students, a PhD data intern, and Sarah Anderson, Dean of Social Equity, Inclusion, and Diversity worked with the VRFSC to create *Equity & Wildfire Resilience: Recommendations for Inclusive Wildfire Management in Ventura County*, a management plan for reducing the risk and impact of wildfire to vulnerable populations in Ventura County for inclusion in the Ventura County CWPP update.<sup>1</sup> This project identified Santa Paula and Piru as communities in Ventura County with heightened marginalization and risk of wildfire. A spatial analysis of social vulnerability and wildfire risk, a county-wide survey, and focus groups revealed that non-English speakers, women, people of color, and newer residents in Ventura County have reported feeling less prepared for wildfire than other groups. These communities face disproportionate barriers to wildfire preparedness, specifically related to evacuation.

The countywide survey of the Equity & Wildfire Resilience Plan was used to collect qualitative and quantitative data which was analyzed to identify gaps in equity in wildfire planning. Marginalized communities are particularly vulnerable to the impacts of wildfire; they must be meaningfully included in plans to mitigate and increase resilience to the effects of fire. The major goal of the Equity & Wildfire Resilience Plan is to decouple vulnerability and marginalization by addressing communication barriers, resource limitations, and creating more inclusive processes. These methods are being utilized by VRFSC and the findings are being shared with our regional and state partners to make the wildfire planning process more inclusive.

The findings from this project helped the Ventura Regional Fire Safe Council identify and engage with marginalized communities, and more equitably address community needs. This work and other collaboration and partnerships contribute to continued efforts to make community wildfire planning, and disaster planning broadly, more responsible to the vulnerabilities of socially marginalized communities. Broader community involvement in the CWPP planning process and incorporation of projects focusing on socially marginalized communities in Priority Actions has allowed the VRFSC to begin making strides toward more equitable wildfire preparedness for all.

## B. FIRE PROTECTION PROGRAMS

Fire protection programs for the proactive public have become more available through organizations such as the National Fire Protection Association (NFPA) and guides like *Ready, Set, Go!*. As Ventura County and other parts of the country experience increased wildfire risk it is important for residents, households, and communities to take part in training programs to increase understanding and preparation in advance of these events.

<sup>1</sup> Equity & Wildfire Resilience: Recommendations for inclusive wildfire management in Ventura County. 2022. Retrieved from <https://bren.ucsb.edu/projects/equity-wildfire-resilience-recommendations-inclusive-wildfire-management-ventura-county>

## FIREWISE

The Firewise USA program is administered by the NFPA<sup>2</sup>, a global self-funding nonprofit organization, established in 1896, devoted to eliminating death, injury, property, and economic loss due to fire, electrical and related hazards. The Firewise USA program is co-sponsored by the United States Department of Agriculture (USDA) Forest Service and the National Association of State Foresters. While the NFPA administers this program, individuals and communities participate on a voluntary basis.

The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. Any community that meets a set of voluntary criteria on an annual basis and retains an "In Good Standing Status" may identify itself as being a Firewise Site. There are currently two Firewise communities in Ventura County, the Matilija Canyon Properties, located in Ojai, and the Deer Creek Community Association, located in Thousand Oaks.

## CERTIFIED WILDFIRE MITIGATION SPECIALIST

The NFPA Certified Wildfire Mitigation Specialist (CWMS) was created in 2017 after discussions with fire service and forestry professionals at the federal, state, and local levels. The CWMS credential offers professionals whose work involves wildfire hazard mitigation the ability to demonstrate that they understand hazard mitigation measures, planning and preparedness strategies, public education practices, and wildland fire science.<sup>3</sup>

## READY, SET, GO!

Ready, Set, Go! is an award-winning, national wildfire action planning program that guides residents through proper preparations for a wildfire event before it happens. The program details the important steps that should be taken to develop defensible space, conduct home hardening, and create a plan for emergency evacuation.<sup>4</sup>

## FIRESCOPE

Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE) is a statewide program intended to complete the legislative attempt to unify various fire agencies together into one voice and direction. This program provides valuable input to the Director of the California Governor's Office of Emergency Services (Cal OES) in addressing the future of fire and rescue services in California. The mission of FIRESCOPE is to provide recommendations and technical assistance to the Cal OES, to maintain the FIRESCOPE Decision Process, and to continue the operation, development, and maintenance of the FIRESCOPE Incident Command System (ICS) and the Multi-Agency Coordination System (MACS). The vision of the FIRESCOPE Board of Directors/OES Fire and Rescue Services Advisory Committee is to continue national leadership in the development of all-hazard management and multi-agency coordination systems, to enhance and encourage full participation by CAL FIRE in the statewide

---

<sup>2</sup> National Fire Protection Association (NFPA). "Firewise USA™." Accessed March 14, 2023. Retrieved from: <https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA>.

<sup>3</sup> National Fire Protection Association. N.d. Certified Wildfire Mitigation Specialist. Retrieved from <https://www.nfpa.org/Training-and-Events/Certification/Certification/Certified-Wildfire-Mitigation-Specialist>

<sup>4</sup> Ventura County Fire Department. (n.d.). Ready, Set, Go! Ventura County Fire Department. Retrieved March 26, 2023, from <https://vcfd.org/public-info/ready-set-go/>

Fire and Rescue Mutual Aid System, and to provide a common voice for the California fire service relating to these issues.

## **C. ENVIRONMENT AND FIRE HISTORY**

This section provides an overview of the Ventura County environmental setting, including topography, climate and weather, vegetation and wildlife, fuel beds, fire zones, vegetation treatments, cultural, fire history, and community impacts in the area.

### TOPOGRAPHY

Ventura County covers 2,208 square miles along southern California's Pacific coast (1,845 square miles of land and 363 square miles of water). It is bordered by Kern County and the San Joaquin Valley to the north, Santa Barbara County to the northwest, the Pacific Ocean to the southwest, and Los Angeles County to the east and southeast. The Los Padres National Forest makes up over half of Ventura County's total area. Of the remaining 47% (555,953 acres) not designated as National Forest land, 59% is agricultural and approximately 18% is urban.

The northern half of the county is mountainous and sparsely inhabited and contains some of the most remote wilderness remaining in southern California. Most of this land lies within the Los Padres National Forest, and includes the Chumash Wilderness in the northernmost portion, adjacent to Kern County, as well as the Sespe Wilderness and portions of the Dick Smith Wilderness and Matilija Wilderness (both of which straddle the line with Santa Barbara County). Eight mountains within this portion of the county exceed 6,000 feet in elevation, and the only major river valley is Lockwood Valley.

Conversely, the southwestern portion of the county consists of a large coastal expanse known as the Oxnard Plain. The plain was formed by the alluvial deposit of sediments from the Santa Clara River and from the streams of the Calleguas Creek Watershed. It has a mean elevation of 50 feet, but the elevation is as much as 150 feet at points south of the Santa Clara River and as much as 300 feet at points north of the river. Most of the fertile and productive land in Ventura County is found on the coastal plain, as well as the cities of Camarillo, Oxnard, Ventura, and Port Hueneme.

The Santa Ynez Mountains, the Topatopa Mountains, and the Piru Mountains constitute the northern boundary of the Oxnard Plain. The Santa Susana Mountains lie alongside the eastern boundary of the county, and the Simi Hills and the Santa Monica Mountains are along the southern border with Los Angeles County. These coastal mountains range in elevation from 50 feet along the coast south of the coastal plain to about 3,100 feet in the Santa Monica Mountains. Inland, the low, long South Mountain and Oak Ridge ranges separate Santa Clara Valley from the Las Posas Valley and Simi Valley. The Camarillo Hills and the Las Posas Hills extend from Camarillo to Simi Valley and separate the Las Posas-Simi area from the Santa Rosa Valley and Tierra Rejada Valley.<sup>5</sup>

### CLIMATE AND WEATHER

Ventura County is characterized by a Mediterranean climate that typically features cool, wet winters and warm, dry summers. There are three distinct climate regions in the county. The coastal regions and the Oxnard Plain have maritime climates that are cooler and wetter than the

---

<sup>5</sup> University of California Agriculture and Natural Resources. 2023. Science-Based Solutions for Ventura County's Communities, Farms and Environment. Retrieved from [https://ceventura.ucanr.edu/Com\\_Ag/Soils/The\\_environmental\\_characteristics\\_of\\_Ventura\\_County\\_and\\_its\\_soils\\_/Additional\\_facts\\_about\\_the\\_area/](https://ceventura.ucanr.edu/Com_Ag/Soils/The_environmental_characteristics_of_Ventura_County_and_its_soils_/Additional_facts_about_the_area/)



rest of the region as a whole, resulting in a drastically reduced fire severity than the rest of the county. The Conejo and Simi Valleys have similar climates to the San Fernando Valley and other inland areas of neighboring Los Angeles County, with warmer temperatures and seasonal Santa Ana winds in the canyon areas. The mountainous northern half of the county experiences more extreme weather patterns with high temperatures in the summer and is significantly cooler, and outside of drought conditions, receives moderate snowfall in the winter months.

Southern California has been experiencing severe drought conditions for over a decade, causing the vegetation to exhibit critically low moisture levels, reducing the soil's capability to absorb water when it does rain, and allowing nonnative, highly flammable invasive herbaceous plant species to outcompete native vegetation. Southern California has experienced drought conditions, ranging from severe to extreme, since 2012, with a brief wet period in 2017 and above average rainfall in the winter of 2023.

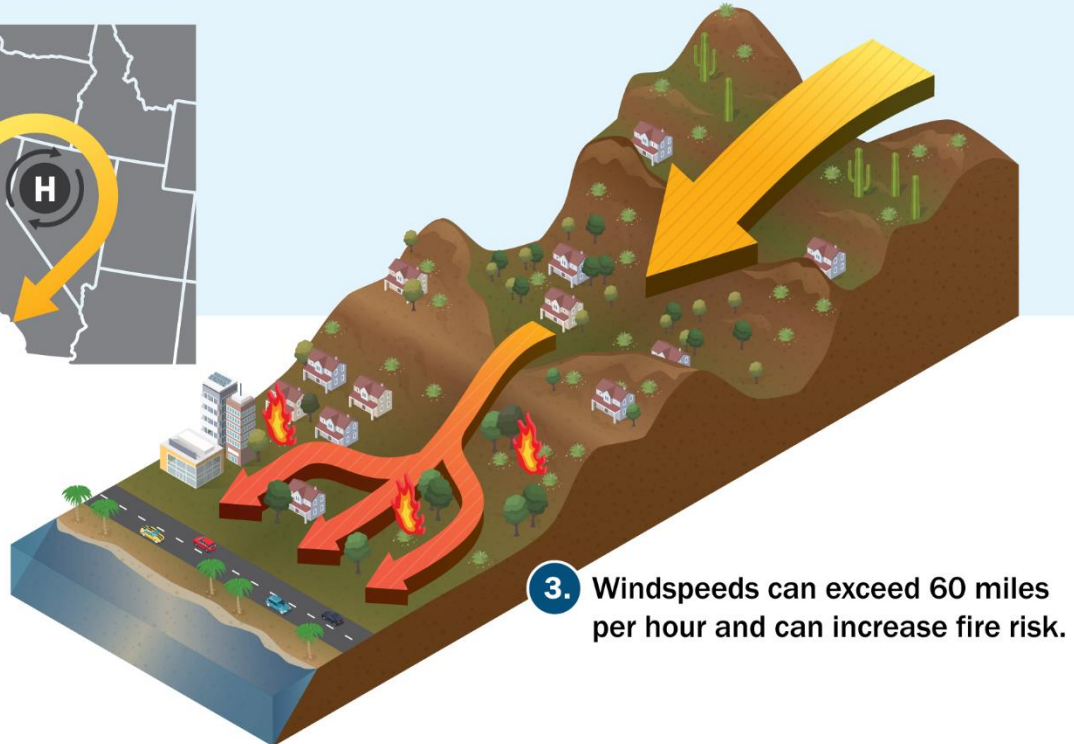
The Santa Ana winds, illustrated in Figure 1, contribute to the high rate of spread of wildfires in Ventura County. These winds originate during the fall in the hot, dry interior deserts to the north and east of Ventura County. They often sweep west into the county, bringing extremely dry air and high wind speeds that further desiccate plant communities during the period of the year when vegetation has very low moisture content. The effect of these winds on fire intensity is particularly dangerous; the winds dramatically increase the rate at which fires spread through a process called fire spotting. Fire spotting is a phenomenon that occurs when small embers or burning debris from a fire are lifted into the air by wind and carried away from the main fire. These embers can travel long distances and ignite new fires, even in areas that were previously unaffected by the main fire. Fire spotting is a common cause of wildfire spread and can pose a serious threat to structures and communities located in the path of an advancing wildfire. Santa Ana winds were the driving force behind the spread of the largest fires in Ventura County's recent history (the Thomas, Woolsey, and Hill Fires). High winds exacerbated by prolonged drought have also resulted in ignitions from electric infrastructure. Whether wind-thrown trees and vegetation cross phasing lines or the failure of equipment to withstand unanticipated wind speeds, these events have resulted in fires that behave in ways local officials have never experienced before. Fires jumped miles ahead of the predicted footprint, burning hundreds of homes with the embercast that was carried by the 100+ mile an hour wind. Drought coupled with the extreme Santa Ana winds decrease moisture content of vegetation, increasing the risk of ignition.

Figure 1 Santa Ana Winds

## Santa Ana Winds

Santa Ana Winds increase fire risk in Southern California.

1. A high-pressure system in the Great Basin creates clockwise desert winds.
2. The desert winds flow over the desert ranges, bringing hot dry winds to Southern California and drying out vegetation.



### VEGETATION AND WILDLIFE

The diversity of topography and climate in Ventura County has resulted in a range of vegetation communities and habitats, which support a diversity of native fish and wildlife, including small mammals, insectivores, amphibians, raptors, and numerous perching birds, from hummingbirds to ravens. Ventura County possesses a flora of over 2,000 species (including subspecies and varieties) of native and nonnative plants.<sup>6</sup> The plant communities such as oak and riparian woodlands, pinyon-juniper, coastal sage scrub, chaparral, and mixed-conifer, provide habitats for larger animals, and include populations of bobcat and mountain lion, mule deer, and black bear, in addition to a game population of quail, rabbit, tree squirrel, band-tailed pigeon, dove, and turkey. Numerous reptiles are commonly found throughout the county<sup>7</sup>

The County of Ventura features a vast array of wildlife and associated habitats. In March 2019, the Ventura County Board of Supervisors enacted the Ventura County Habitat Connectivity and Wildlife Corridor (see Appendix C *Additional Mapping*). The Wildlife Corridor Ordinance was

<sup>6</sup> David Magney Environmental Consulting. <https://www.venturafloora.com/files/vcfloristics.htm>

<sup>7</sup> Ventura County. 2020. 2040 General Plan Background Report Chapter 8 Natural Resources. Retrieved from [https://docs.vcrma.org/images/pdf/planning/plans/VCGPU\\_08\\_Adopted\\_Natural\\_Resources\\_September\\_2020.pdf](https://docs.vcrma.org/images/pdf/planning/plans/VCGPU_08_Adopted_Natural_Resources_September_2020.pdf)

developed to facilitate movement of plants and animals through dispersal and migration and to connect fragmented patches of habitat. The ordinance includes the following objectives: minimize indirect barriers such as outdoor night lighting; minimize direct barriers, such as impermeable fencing; and minimize vegetation and habitat fragmentation.

The corridors were identified as part of a project in 2006 to map areas that are used by a large variety of mammals, birds, reptiles, amphibians, fish, insects, and plants (seeds) to access protected areas of habitat that are critical for their long-term survival. The corridors were mapped using widely accepted conservation planning techniques and based on the expertise of many scientists and subject-matter experts.

There are three Critical Wildlife Passage Areas (CWPAs) located within the boundaries of the larger Habitat Connectivity and Wildlife Corridors: an area between Oak View and Lake Casitas; the Simi Hills including Bell Canyon, Box Canyon, and the Santa Susana Knolls; and the Tierra Rejada Valley.

Planning Division staff, in consultation with wildlife experts, identified these areas as being particularly critical for facilitating wildlife movement based on one or more of the following factors: (1) the existence of intact native habitat or other habitat with important beneficial values for wildlife; (2) proximity to water bodies or ridgelines; (3) proximity of critical roadway crossings used by wildlife; (4) likelihood of encroachment by future development, and within which wildlife movement and plant dispersal could be easily disturbed by development; or (5) presence of non-urbanized or undeveloped lands within a geographic location that connects core habitats at a regional scale.<sup>8</sup>

Most of the native vegetation found in the county includes chaparral, conifer, oak woodland/savanna, grassland, and riparian. Additionally, a substantial portion of land in the county is developed for agriculture. See Table 2 for estimated amount of vegetation and other land cover types in the county. See Figure 2 for estimated vegetation and other land cover types in the county.

---

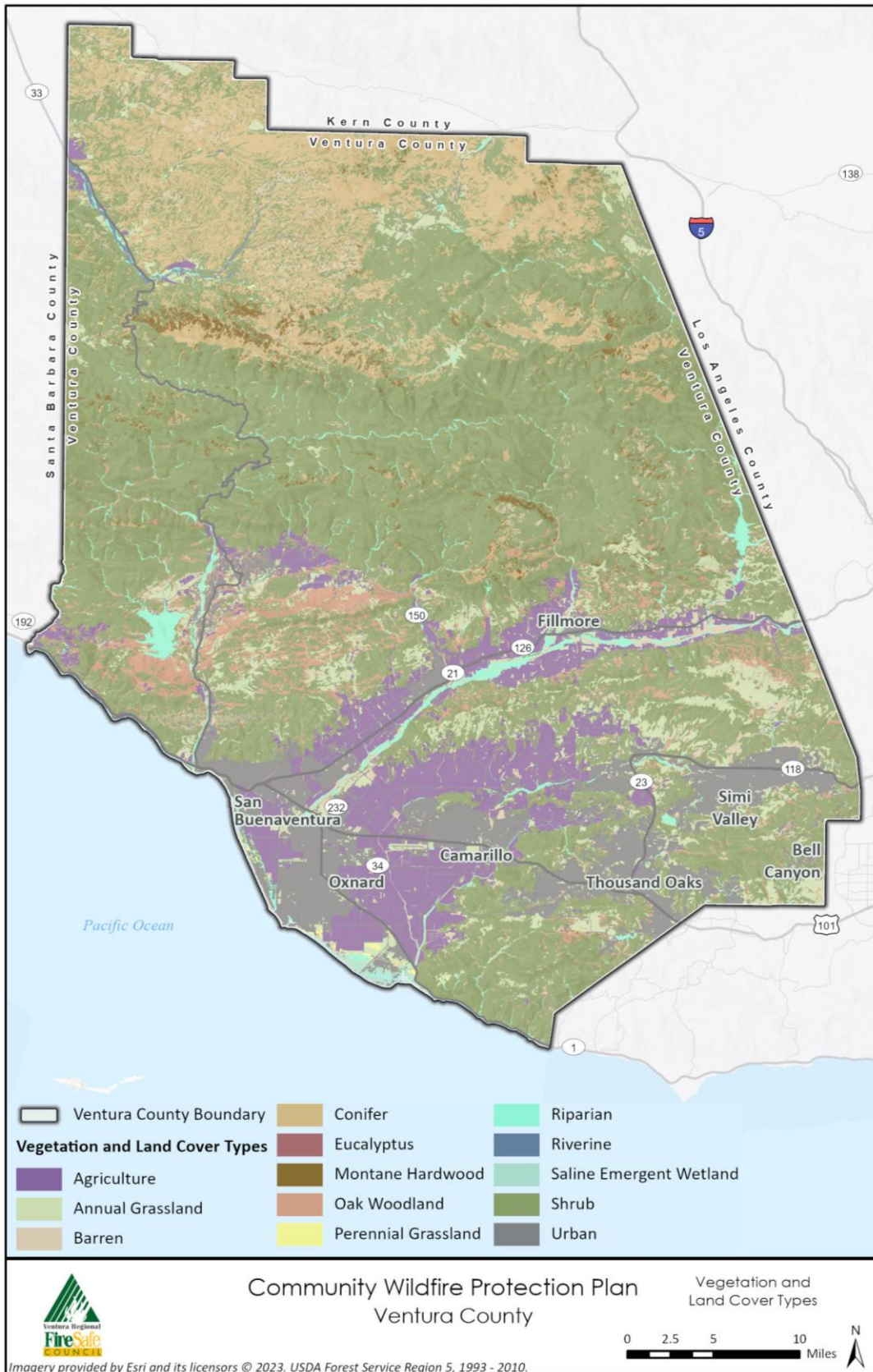
<sup>8</sup> Ventura County Resource Management Agency. (n.d.). Habitat Connectivity and Wildlife Corridor FAQ. Retrieved March 23, 2023, from <https://vcрма.org/en/habitat-connectivity-and-wildlife-corridor-faq>

**Table 2 Estimated Land Cover in Ventura County (2020)**

Vegetation and Other Land Cover Types	Acres	Percentage of Land Cover Type
Shrub	646,704	55.2%
Conifer	129,252	11.0%
Urban	102,290	8.7%
Agriculture	99,967	8.5%
Annual Grassland	71,733	6.1%
Oak Woodland	45,911	3.9%
Barren	30,826	2.6%
Riparian	24,032	2.1%
Montane Hardwood	17,286	1.5%
Saline Emergent Wetland	1,570	0.1%
Riverine	1,481	0.1%
Perennial Grassland	812	0.1%
Eucalyptus	508	0.1%
<b>Total</b>	<b>1,172,372</b>	<b>100%</b>

Source: USDA Forest Service. (n.d.). Resource Management. [Webpage]. Retrieved March 27, 2023, from <https://www.fs.usda.gov/detail/r5/landmanagement/resourcemanagement/?cid=stelprdb5347192>

**Figure 2 Estimated Vegetation and Other Land Cover Types in Ventura County**





## SURFACE FUEL TYPES

Knowledge of existing vegetation is vital in determining how to reduce fuel. Land managers must be aware of multiple characteristics of the fuel to understand how it may react to an ignition source or in a wildfire event. Fire behavior fuel models have been developed as guidance for a fuel type's ability to carry fire. The most current of these models is the Scott and Burgan Standard Fire Behavior Fuel Model (2005). Their 40 standard fuel model codes are widely used to describe fuel accumulation, fuel chemistry, crown and understory fuel structure, and community development or aging. Each model (1-40) represents a defined range of fuel loading amongst surface fuel components (live or dead), size classes, and fuel types.

Fuel modeling is dynamic as vegetation changes throughout the year. However, fuel type categorization should be considered for vegetation during the height of fire season. An estimation of the surface fuel types that are found in the county are shown in Table 3.

**Table 3 Surface Fuel Types in Ventura County<sup>1</sup>**

Surface Fuel Type	Surface Fuel Type Description <sup>2</sup>	Acres in County	Percentage of Surface Fuel Type
GS2	Shrubs are 1-3 feet high, moderate grass load. Spread rate high; flame length moderate.	269,274	22.2%
SH5	Heavy shrub load, depth 4 to 6 feet. Spread rate very high; flame length very high.	208,268	17.2%
SH2	Moderate fuel load, depth about 1 foot, no grass fuel present. Spread rate low; flame length low.	160,109	13.2%
GS1	Shrubs are about 1-foot high, low grass load. Spread rate moderate; flame length low.	149,285	12.3%
NB1	Urban or suburban development; insufficient wildland fuel to carry wildland fire.	132,701	11.0%
GR2	Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate	108,050	8.9%
NB3	Agricultural field, maintained in non-burnable condition.	33,340	2.8%
NB9	Bare ground.	29,110	2.4%
TU5	Fuel bed is high load conifer litter with shrub understory. Spread rate moderate; flame length moderate.	28,990	2.4%
GR1	Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low	21,764	1.8%
TL6	Moderate load, less compact. Spread rate moderate; flame length low.	11,428	0.9%

Surface Fuel Type	Surface Fuel Type Description <sup>2</sup>	Acres in County	Percentage of Surface Fuel Type
TL3	Moderate load conifer litter. Spread rate very low; flame length low.	10,043	0.8%
GS3	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	9,053	0.7%
TL5	High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.	8,464	0.7%
SH4	Low to moderate shrub and litter load, possibly with pine overstory, fuel bed depth about 3 feet. Spread rate high; flame length moderate.	7,629	0.6%
TL8	Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.	5,551	0.5%
NB8	Open water.	5,542	0.5%
GR3	Moderate grass/shrub load, average grass/shrub depth less than 2 feet. Spread rate high; flame length moderate.	4,183	0.3%
SH1	Low shrub fuel load, fuel bed depth about 1 foot; some grass may be present. Spread rate very low; flame length very low.	3,571	0.3%
TL4	Fuel bed is short conifer trees with grass or moss understory. Spread rate moderate; flame length moderate.	2,070	0.2%
TU1	Fuel bed is low load of grass and/or shrub with litter. Spread rate low; flame length low.	1,986	0.2%
TU2	Fuel bed is moderate litter load with shrub component. Spread rate moderate; flame length low.	1,184	0.1%
<b>Total</b>		<b>1,211,594*</b>	<b>100%</b>

\*Total acreage is an approximation based on LANDFIRE data for surface fuel types that have more than 1,000 acres in the county.

Sources:

- 1) LANDFIRE data - <https://www.landfire.gov/>. LANDFIRE is spatial data developed, in part, by the United States Department of Agriculture (USDA) Forest Service and the United States Department of the Interior. The LANDFIRE data covers the county at a 30-meter resolution. This data has not been field verified and therefore, provides an estimation of surface fuel types.
- 2) Scott, J.H., and R.E. Burgan. 2005. Standard fire behavior fuel models: A comprehensive set for use with Rothermel's surface fire spread model. USDA General Technical Report RMRSGTR-153.



## FUEL BEDS

Fuel beds are considered relatively homogenous units on the landscape, representing distinct combustion environments that determine potential fire behavior and effects.<sup>9</sup> There are ten identified fuel beds in Ventura County. Each is analyzed based on its topography, vegetation types, fire history, and assets at risk. The entire Casitas, Ojai, and Ventura Fuel Beds burned during the Thomas Fire. Most of the chaparral that burned in the Thomas Fire is considered to have been stand-replacing; possibly taking decades to return to pre-fire conditions.<sup>10</sup>

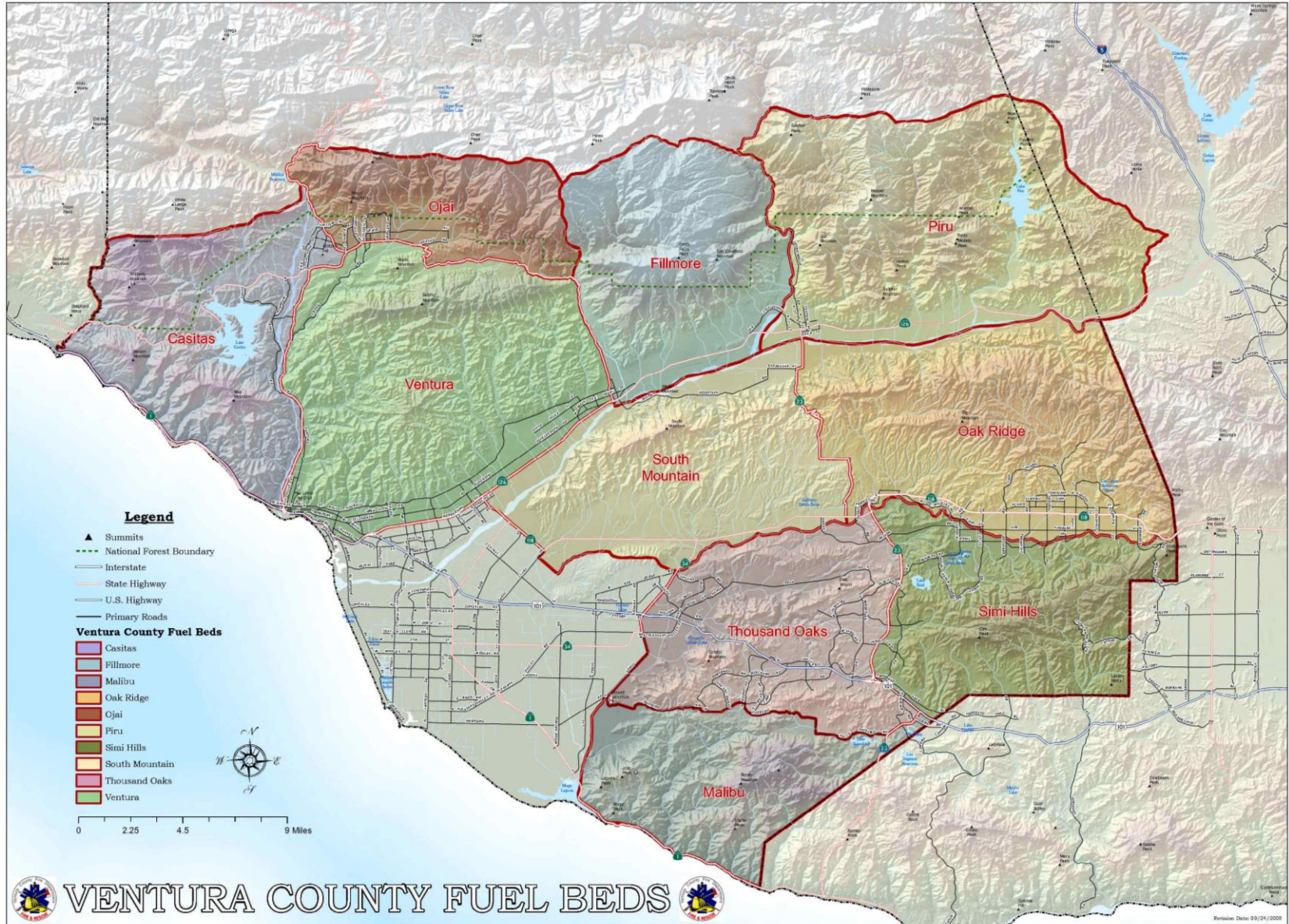
California's Mediterranean climate features higher moisture levels during the winter rainy season which contributes to vigorous seasonal plant growth. However, vegetation dries out during the long, hot summers, decreasing moisture content and resulting in an increased ratio of dead fuel to living fuel. As a result, fire susceptibility increases, particularly in late summer and early autumn. The history of plant succession in Ventura County is important in predicting fire susceptibility. For several years after a fire or disturbance has occurred, highly flammable herbaceous invasive species, particularly fine fuels like grasses and forbs, dominate the landscape and increase the likelihood of new fires. When woody species reestablish after a burn, they contribute to a lower overall level of fire susceptibility for approximately ten years. However, after this period, the slow aging plant community becomes more likely to burn because of an increased amount of dead plant material and reduced plant moisture levels. Biomass and associated fuel loads increase over time in the absence of fire or disturbance. After a large burn that scorches the landscape to the ground, the emerging vegetation is reset to the same age which can be hazardous in following years. Without a mix of vegetative succession and fuel structure, there is an increased susceptibility to wildfire burning the same footprint again. Staggered successional stages across the landscape of trees, shrubs, and understory vegetation provide a mix of fuel structures which can change the uniformity of burns, offering fire professionals better opportunities to control wildfire. Creating a mosaic of differing plant maturities through fuel reduction treatments can dramatically change the behavior of future burns. The Ventura County Fuel Beds are shown in Figure 3.

---

<sup>9</sup> Riccardi et al. 2007. The Fuelbed: a key element of the Fuel Characteristic Classification System. Retrieved from [https://www.fs.usda.gov/pnw/pubs/journals/pnw\\_2007\\_riccardi002.pdf](https://www.fs.usda.gov/pnw/pubs/journals/pnw_2007_riccardi002.pdf)

<sup>10</sup> Ventura County Fire Protection District. 2022. Unit Strategic Fire Plan. Retrieved from <https://osfm.fire.ca.gov/media/ppvfuu1q/2022-ventura-county-unit-fire-plan.pdf>

Figure 3 Ventura County Fuel Beds



## FIRE HAZARD SEVERITY ZONES

The State Fire Marshal is mandated to classify lands within the State Responsibility Area (SRA) into Fire Hazard Severity Zones (FHSZ). Fire Hazard Severity Zones fall into the following classifications: moderate, high, and very high. The FHSZ maps are developed using a science-based and field-tested model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered such as fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area.<sup>11</sup> FHSZ are also defined within the Local Responsibility Area (LRA). LRA can include unincorporated areas, cities, and towns that have established their own fire departments or have contracted with other fire protection agencies to provide services.

Over the past few years, the California Department of Forestry and Fire Protection (CAL FIRE) has been building a new model for an update of the FHSZ. The latest technologies are being used in the mapping and will include new factors such as land use changes, recent fire history, significant wind event data, as well as a model that is more spatially detailed.<sup>12</sup> These data will be updated and available to the public after SRA and LRA updates are completed and adopted by CAL FIRE. In Ventura County, Very High FHSZ are located in mountainous and hillside areas (west of Lake Casitas, northeast of Ojai, north of Fillmore, and surrounding Thousand Oaks and Simi Valley), generally where the greatest fuel density exists. Very High FHSZ are also located throughout much of the county's large agricultural and cattle-grazing areas. Approximately 82 square miles are in the High FHSZ and 504 square miles are in the Very High FHSZ. The populations that live in the Very High FHSZ are mainly located in the cities of Moorpark (44%), Simi Valley (28%), Thousand Oaks (43%), as well as the unincorporated county area (37%). Figure 4 shows land use in the unincorporated county and Figure 5 shows the FHSZ in the county for SRA and LRA.

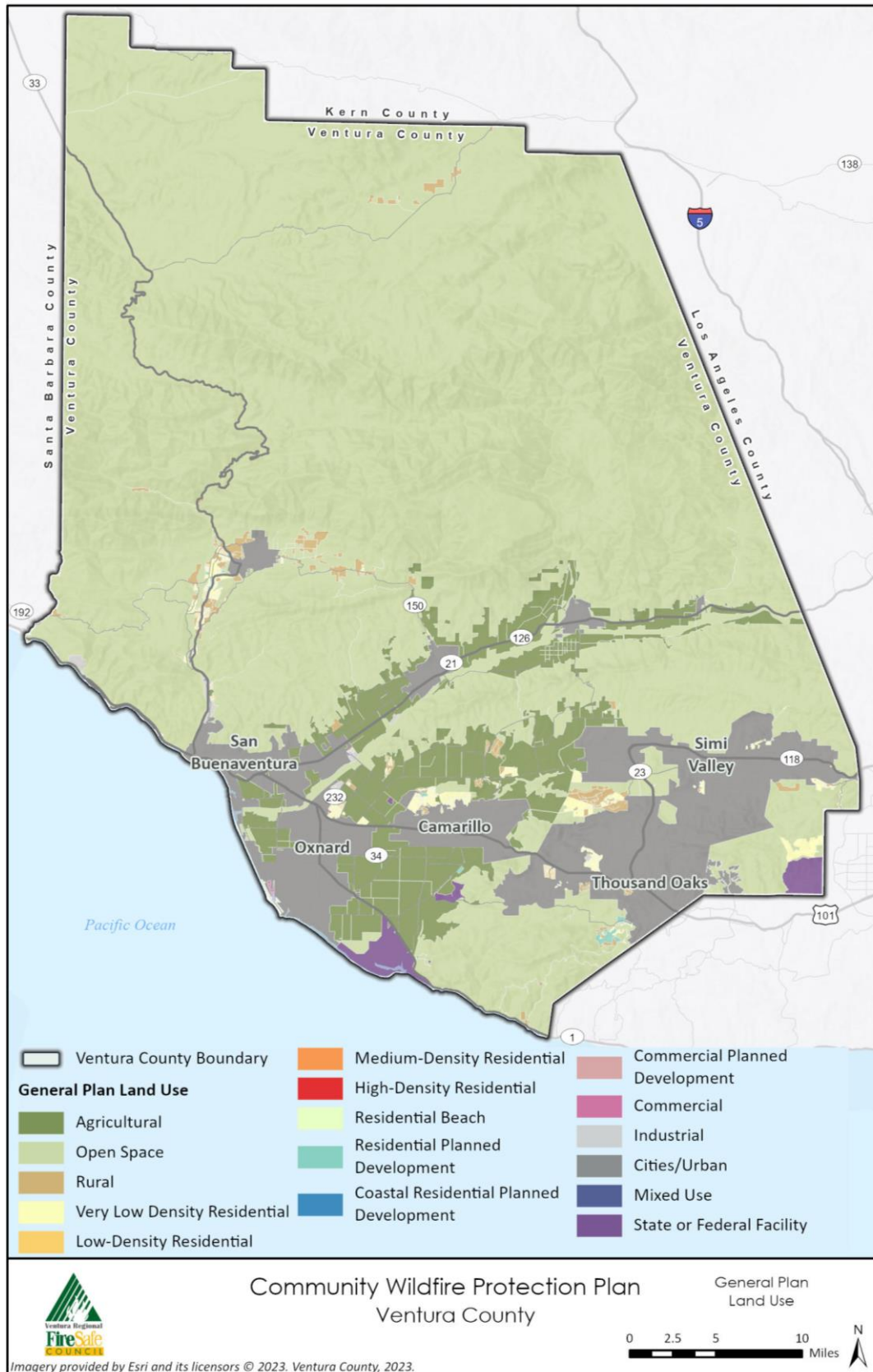
---

<sup>11</sup> California Office of the State Fire Marshal. N.d. Fire Hazard Severity Zones (FHSZ). Retrieved from <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildfire-preparedness/fire-hazard-severity-zones/>

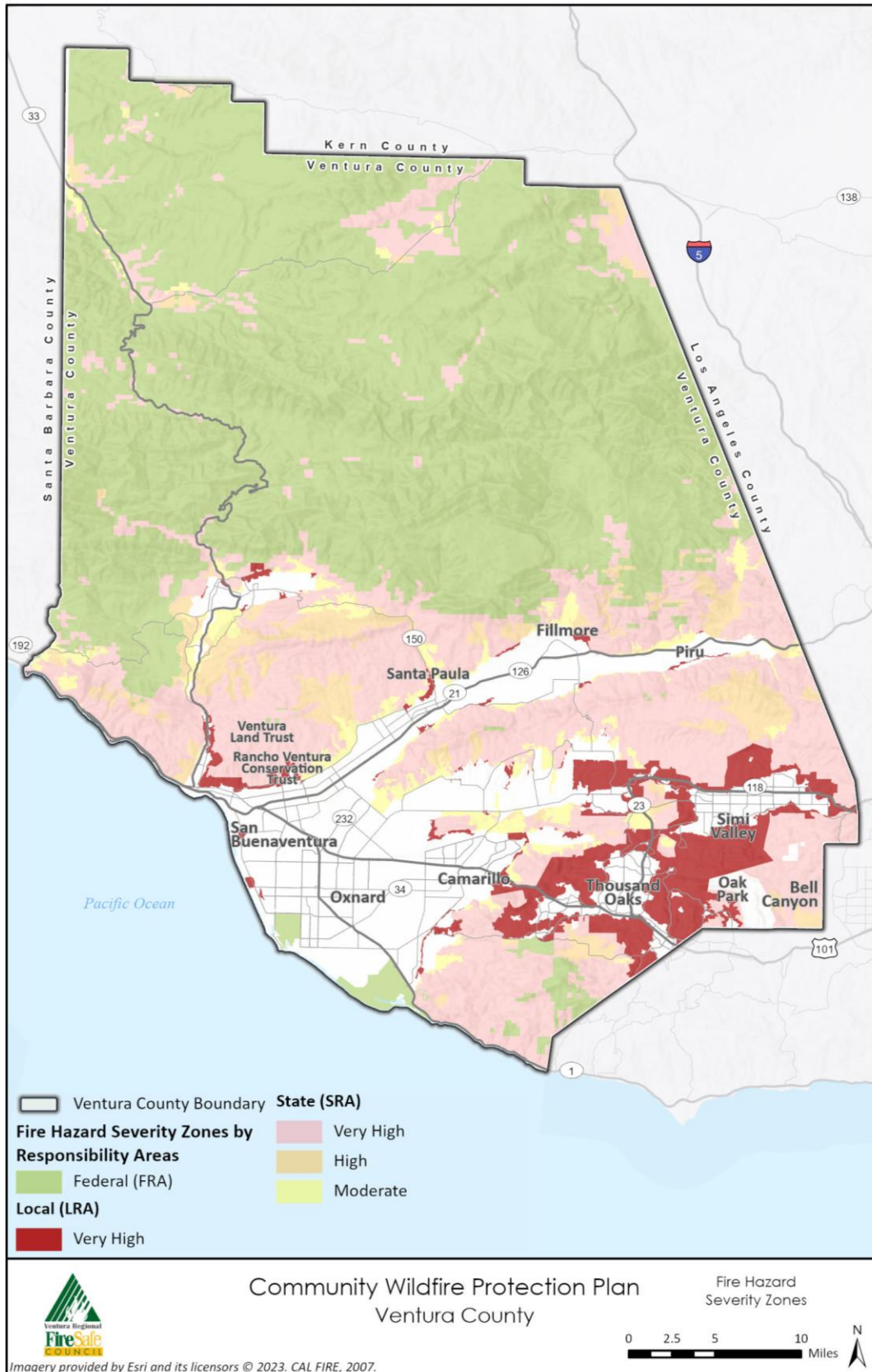
<sup>12</sup> California Department of Forestry and Fire Protection. 2022. Frequently Asked Questions - Fire Hazard Severity Zones (FHSZ) - December 2022. Retrieved from [https://osfm.fire.ca.gov/media/winfmowp/2022-fhsz-faqs-dec-2022-\\_final.pdf](https://osfm.fire.ca.gov/media/winfmowp/2022-fhsz-faqs-dec-2022-_final.pdf)



**Figure 4 General Plan Land Use in Unincorporated Ventura County**



**Figure 5 Ventura County Fire Hazard Severity Zones**



## **CEQA required in the Fire Hazard Severity Zones**

The California Environmental Quality Act (CEQA) is California's statewide environmental review law that requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects and to reduce those environmental impacts to the extent feasible. The California Natural Resources Agency, with assistance from the Governor's Office of Planning and Research, completed a comprehensive update to the CEQA Guidelines in 2018. As part of this update, and pursuant to Senate Bill 1241, wildfire was added to the list of environmental topics that should be analyzed in the Environmental Checklist, which is contained in Appendix G of the State CEQA Guidelines. Wildfire hazards, associated risks, and other wildfire-related impacts must now be analyzed during the CEQA process for projects located in or near SRA or Very High Fire Hazard Severity Zones.<sup>13</sup>

## **Wildland Urban Interface (WUI)**

The Wildland Urban Interface (WUI) is the area where human development meets wildland vegetation, and it is typically characterized by a mix of residential, commercial, and natural land uses. CAL FIRE uses a combination of housing density, FHSZ, and vegetation lifeform criteria for WUI designations within their Fire and Resource Assessment Program (FRAP).

Housing Density Classes used in the WUI definitions:

1. Less than 1 house per 20 acres
2. One house per 20 acres to one house per 5 acres
3. More than one house per 5 acres to 1 house per acres
4. More than 1 house per acre

The WUI is particularly vulnerable to wildfire because it combines the presence of human-built structures with the presence of combustible vegetation and other wildfire fuels. The concept of the WUI is not new, although more often, extreme climate events are driving wildfire through the WUI and into areas not necessarily representative of WUI. This has led to a need for more public outreach and education for residents to learn about defensible space and home hardening strategies.

Wildland Urban Interface Criteria:

- Housing density class 2, 3, or 4
- In moderate, high, or very high FHSZ
- Not dominated by wildland vegetation (herbaceous, hardwood, conifer, shrub)

Wildland Urban Intermix is a similar term commonly used interchangeably with Wildland Urban Interface although it is typically represented by areas with much higher vegetation density amongst built infrastructure.

Wildland Urban Intermix Criteria:

- Not Interface
- Housing density class 2
- Housing density class 3, 4 dominated by wildland vegetation

---

<sup>13</sup> State of California Governor's Office of Planning and Research. 2020. Fire Hazard Planning Technical Advisory. Retrieved from [https://opr.ca.gov/docs/20201109-Draft\\_Wildfire\\_TA.pdf](https://opr.ca.gov/docs/20201109-Draft_Wildfire_TA.pdf)

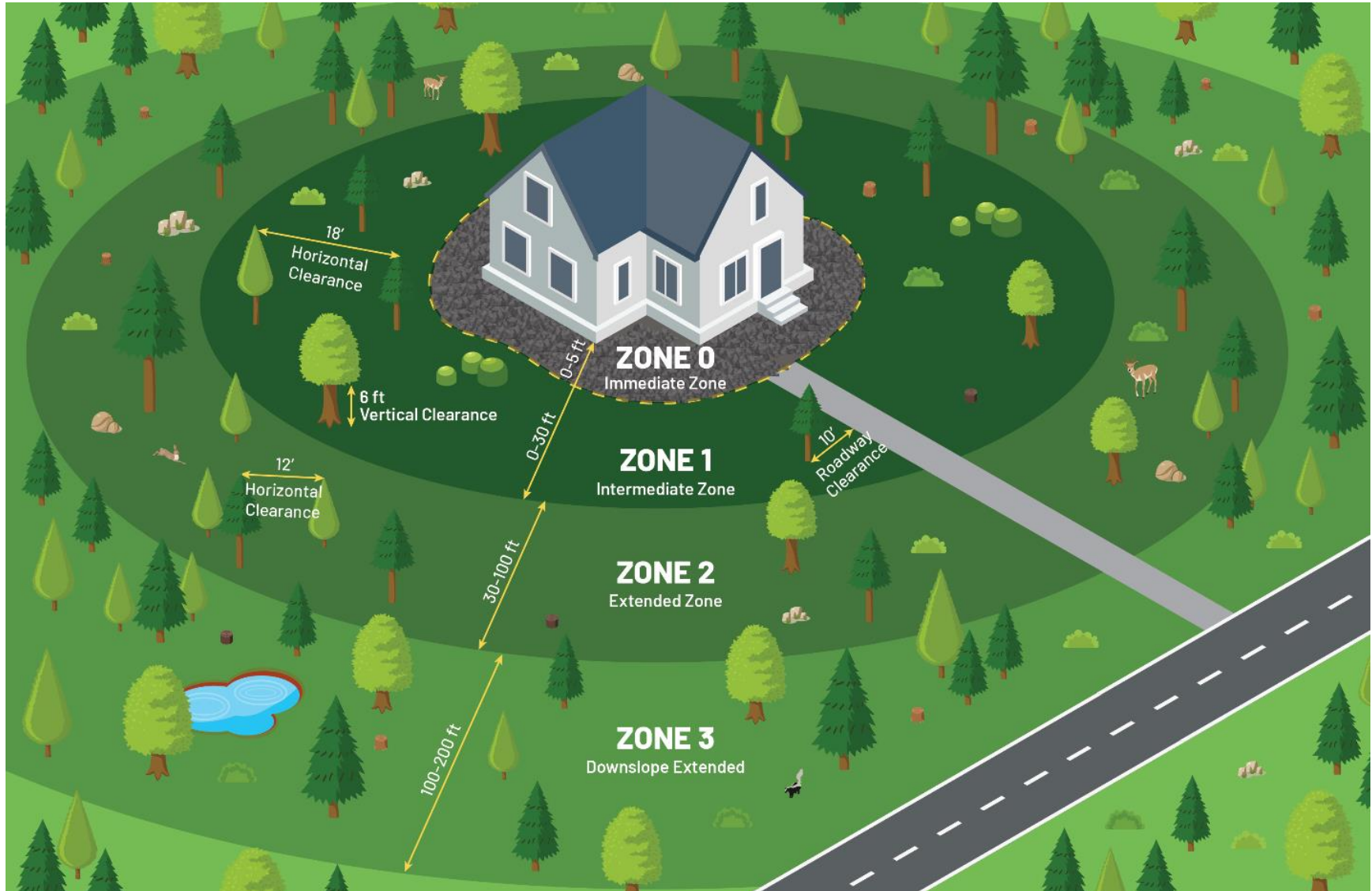
- In moderate, high, or very high FHSZ
- Improved parcels only

Wildfire Influence Zone includes wildfire susceptible vegetation up to 1.5 miles from interface and intermix designated areas and essentially serves as a buffer to the previous designations.

Lands within these designated areas require attention to reduce wildfire hazard. Priority projects within this CWPP will be focused on community education, home hardening, defensible space, fuels reduction, and evacuation within the Wildland Urban Interface, Wildland Urban intermix, and Wildfire Influence Zones of Ventura County to maximize effectiveness for areas in need. Defensible space guidelines are included in Figure 6. Full defensible space guidelines can be found in Appendix A *Ventura County Defensible Space Ordinance*. The Wildland Urban Interface within Ventura County is shown in Figure 7.



Figure 6 Defensible Space Guidelines



**Figure 7 Ventura County Wildland Urban Interface**



## VEGETATION TREATMENTS

The California Vegetation Treatment Program (CalVTP), developed by CAL FIRE, is a critical component of the state's multi-faceted strategy to address California's wildfire crisis. The CalVTP includes the use of prescribed burning, mechanical treatments, manual treatments, herbicides, and prescribed herbivory as tools to reduce hazardous vegetation around communities in the WUI, to construct fuel breaks, and to restore healthy ecological fire regimes. Examples of these types of vegetation treatments are listed below.

- **Prescribed burning** – includes both “broadcast burning” to reduce fuels or to restore fire resiliency in target fire-adapted plant communities and “pile burning” of vegetative materials placed in piles after initial vegetation treatment through means other than burning.
- **Mechanical treatment** – involves the use of motorized equipment to cut, uproot, crush/compact, or chop existing vegetation.
- **Manual treatment** – involves the use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous or woody species.
- **Prescribed herbivory** – involves the use of domestic livestock to reduce target plant populations.
- **Herbicide** – designed to inhibit the growth of target plant species.<sup>14</sup>

### Ventura County Wildlife Corridor

There are several environmental considerations that are required to be evaluated when conducting vegetation treatment in Ventura County. In March 2019, the Ventura County Board of Supervisors approved the Habitat Connectivity and Wildlife Corridor Ordinance (Ordinance 4537), which limits the type of vegetation management that can occur in order to preserve habitat and minimize habitat fragmentation.<sup>15</sup> These regulations do not result in changes to the Ventura County Fire Department weed and brush clearance regulations to comply with mandatory fuel modification zones, nor do they prohibit property owners from installing landscaping. However, the ordinance does prohibit the intentional planting of invasive plants within the corridor. A map of this designated area is included in Appendix C *Additional Mapping*. For further information visit the [County of Ventura Resource Management Agency FAQ website](#).

### Ventura County Coastal Zone

The California Coastal Act which applies within the Coastal Zone of Ventura County (See Appendix C *Additional Mapping*) requires that a Coastal Development Permit is issued when the clearance of most vegetation or any soil disturbance is proposed (among other uses and activities) because of the way the Coastal Act defines “[development](#)”.

Recent amendments to the Ventura County Local Coastal Program (LCP) further clarify permitting requirements when creating, expanding, or maintaining fuel modification zones within Environmentally Sensitive Habitat Areas (ESHA). These sensitive habitats are predominantly found inland of the 101 highway on the north coast of the County and up to five miles inland within the Santa Monica Mountain Range along the southern coast of the County ([Coastal Zone Map](#))<sup>16</sup>. Before expanding or clearing new vegetation outside of existing permitted fuel

---

<sup>14</sup> State of California Natural Resources Agency Board of Forestry and Fire Protection. N.d. Answers to Frequently Asked Questions Relating to the Program EIR for the California Vegetation Treatment Program. Retrieved from <https://bof.fire.ca.gov/media/dannit4m/calvtp-faqs.pdf>

<sup>15</sup> Ventura County. 2019. Habitat Connectivity and Wildlife Corridor Ordinance (Ord. 4537). Retrieved from [https://docs.vcrma.org/images/pdf/planning/HWCW/Ordinance\\_4537.pdf](https://docs.vcrma.org/images/pdf/planning/HWCW/Ordinance_4537.pdf)

<sup>16</sup> <https://vcrma.org/en/land-use-maps>

modification zones or utilizing clearance methods that could impact ESHA (e.g., goats, heavy machinery), landowners and project managers are strongly encouraged to contact the Ventura County Planning Division to ensure that a permit will not be needed. Penalties for unpermitted impacts to ESHA in the coastal zone can be substantial.

Landowners are required to obtain a Coastal Development Permit for most vegetation removal activities in the Coastal Zone unless the activities were previously permitted, exempted, or categorically excluded in accordance with the Ventura County Coastal Zoning Ordinance. For more information, contact the Ventura County Planning Division to determine if the project's proposed fuel modification activities must be permitted.

## CULTURAL PRACTICES

The Ventureño Chumash have occupied the Ventura County area for at least 8,000 years.<sup>17</sup> Cultural burning is the intentional application of fire to land by California Native American tribes, tribal organizations, or cultural fire practitioners to achieve cultural goals or objectives, including for subsistence, ceremonial activities, biodiversity, or other benefits. Cultural burning practices by tribes and cultural fire practitioners are expanding and gaining public recognition and support.<sup>18</sup>

The State of California is recognizing the benefit of cultural burning as a fixture in the history of land management in the west and has passed legislation to help facilitate cultural burning. Both Senate Bill 332 and Assembly Bill 642 were passed in 2021. Senate Bill 332 recognizes cultural fire practitioners and cultural burning as being separate from prescribed burning and removes liability risks for tribes that would otherwise face penalties for setting prescribed burns on traditional lands. Assembly Bill 642 requires a Cultural Burning Liaison to be appointed by the Director of Forestry and Fire Protection. This Cultural Burning Liaison will ensure that an effective prescribed burning program for the state is developed collaboratively with cultural practitioners, acknowledging historical techniques, and integrating expertise into law.

It is estimated that of California's 33 million acres of forest lands, 1 to 3 million acres need to be managed annually using prescribed or cultural burns. As of 2022, only approximately 125,000 acres are treated annually. In May of 2022, Governor Gavin Newsom announced support for prescribed burning on 400,000 acres by 2035.<sup>19</sup>

## FIRE HISTORY

Major Ventura County wildfires have been documented as far back as 1898. Some of these fires are among the largest in the state's history, though they are quickly being dwarfed by ongoing megafires in Central and Northern California. The Matilija Fire in 1932 burned more than 220,000 acres. The Wheeler Fire in 1985 consumed over 118,000 acres and the Day Fire in 2006 destroyed almost 163,000 acres. On December 4, 2017, the Thomas Fire started just north of Santa Paula and south of Saint Thomas Aquinas College. A second fire ignited nearly thirty minutes later, approximately four miles to the north in Upper Ojai at the top of Koenigstein Road. The fires soon merged and grew rapidly. In all, the fire consumed 281,893 acres within Ventura and Santa Barbara Counties, and damaged or destroyed 1,156 structures.

---

<sup>17</sup> Ventura County. 2020. 2040 General Plan Background Report Chapter 8 Natural Resources. Retrieved from [https://docs.vcrma.org/images/pdf/planning/plans/VCGPU\\_08\\_Adopted\\_Natural\\_Resources\\_September\\_2020.pdf](https://docs.vcrma.org/images/pdf/planning/plans/VCGPU_08_Adopted_Natural_Resources_September_2020.pdf)

<sup>18</sup> California Wildfire & Forest Resilience Task Force. 2022. California's Strategic Plan for Expanding the Use of Beneficial Fire. Retrieved from <https://www.fire.ca.gov/media/xcqjpmc/californias-strategic-plan-for-expanding-the-use-of-beneficial-fire-march-16-2022.pdf>

<sup>19</sup> Slate. 2022. Forests in the American West Need More "Good Fire." Tribes Can Help. Retrieved from <https://slate.com/technology/2022/07/cultural-burning-california-wildfires-usfs.html>



The Thomas Fire's rates of spread (up to one acre per second) are attributed to hurricane-force Santa Ana winds combined with record heat, very low relative humidity, dry vegetation, and soil moistures well below the critical levels, and significant accumulation of dead and decaying woody debris. Fuel loads are attributed to the extended drought cycle and lack of recent fire activity in the area. Most of the chaparral burned in the fire is considered stand-replacing, meaning experts predict it will require decades without disturbance to return to pre-fire conditions.

The Hill Fire was reported at 2:03 p.m. on November 8, 2018, and twenty-one minutes later, the Woolsey Fire was reported. The Hill Fire began in the Camarillo area at Hill Canyon, about one mile west of Thousand Oaks, and burned a total of 4,531 acres. The Woolsey Fire started in Woolsey Canyon on the Santa Susana Field Laboratory property in Simi Valley and burned 96,949 acres in Ventura and Los Angeles Counties, destroyed 1,643 structures, killed three people, and caused the evacuation of more than 295,000 people. The Woolsey Fire response was made more complex due to a mass shooting that occurred in Thousand Oaks the day before the fire began, on November 7, 2018. The mass shooting at the Borderline Bar and Grill took the lives of 13 people, including the perpetrator and a police officer. Multiple crises occurring simultaneously stretches county resources thin.

In 2019, Ventura County experienced two large fires igniting within a day of each other under Santa Ana wind conditions. The 1,806-acre Easy Fire began October 30, 2019, at approximately 6:00 a.m. The point of ignition was near Easy Street and Madera Road in the southwest portion of the city of Simi Valley. As the fire advanced toward Moorpark, on October 30, over 1,000 homes were threatened, and 26,000 Ventura County residents were evacuated. While the Easy Fire was actively burning, the 9,412-acre Maria Fire started at the top of South Mountain, south of the city of Santa Paula on October 31. Reported at 6:13 p.m., the fire worked its way north toward Santa Paula in the Santa Clara River Valley, and south toward the unincorporated area of Somis pushed by twenty to thirty mile an hour winds, Evacuations were ordered for over 1,800 homes surrounding the fire area, affecting over 7,500 residents.<sup>20</sup> The Ronald Reagan Presidential Library was nearly surrounded by the Easy Fire. Ventura County Fire Department's progressive vegetation management practices which use goat grazing was credited with changing the fire's intensity, enabling firefighters to safely defend the library.

Wildfires are a common occurrence in Ventura County. Table 4 lists the 10 largest fires since 2003 in Ventura County. Figure 8 shows the thousands of acres burned throughout Ventura County since 1900. Figure 9 shows fire history from 1900s to 1940s. Figure 10 shows fire history from 1950 to 2000. Figure 11 shows fire history from 2000 to 2022 for fires greater than 30,000 acres. See Appendix C *Additional Mapping* for a depiction of 2022 wildland fire ignition sources.

---

<sup>20</sup> Ventura County Fire Protection District. 2021. Ventura County Fire Department 2021 Fire Plan. Retrieved from [https://osfm.fire.ca.gov/media/pl3oihmp/2021\\_vnc\\_fireplan.pdf](https://osfm.fire.ca.gov/media/pl3oihmp/2021_vnc_fireplan.pdf)

**Table 4 Largest Fires in Ventura County 1990-2022 (over 2,000 acres)**

Name	Date	Acres Affected
Thomas Fire	December 2017	281,893
Day Fire	September 2006	162,702
Simi Fire	October 2003	108,204
Woolsey Fire	November 2018	96,949
Green Meadows Fire	October 1993	38,479
Steckel Fire	October 1993	27,084
Hopper Fire	August 1997	24,797
Springs Fire	May 2013	24,251
Los Padres Fire	September 1990	20,540
Guiberson Fire	September 2009	17,500
Shekell Fire	December 2006	13,600
Piru Incident Fire	October 1998	12,613
Grand Fire	July 1996	10,950
Maria Fire	October 2019	9,999
Hill Fire	November 2018	4,381
Grand Fire	May 2013	4,346
Ranch Fire	December 1999	4,020
Sloan Fire	1999	3,441
Bradley Incident	December 1999	3,332
Cozy Dell	September 1990	2,974
Lion Fire	October 1991	2,849
Matilija Fire	March 1990	2,641
Holder Incident Fire	July 1999	2,526

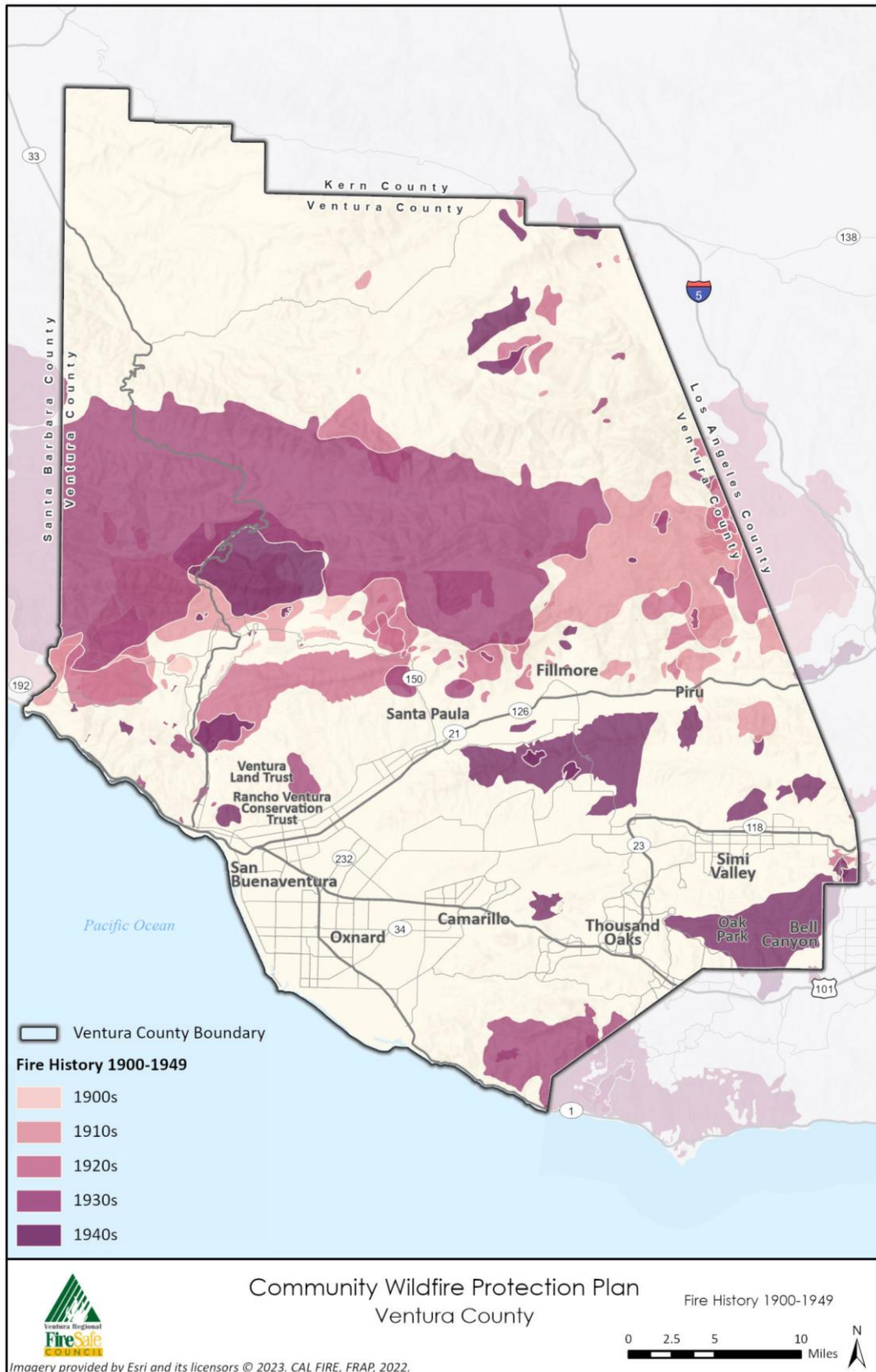
Source: California Department of Forestry and Fire Protection (CAL FIRE). N.d. Incident Database.  
<https://www.fire.ca.gov/incidents/IncidentSearch?q=Ventura+County>

**Figure 8 Thousands of Acres Burned in Ventura County from 1900 to 2019**

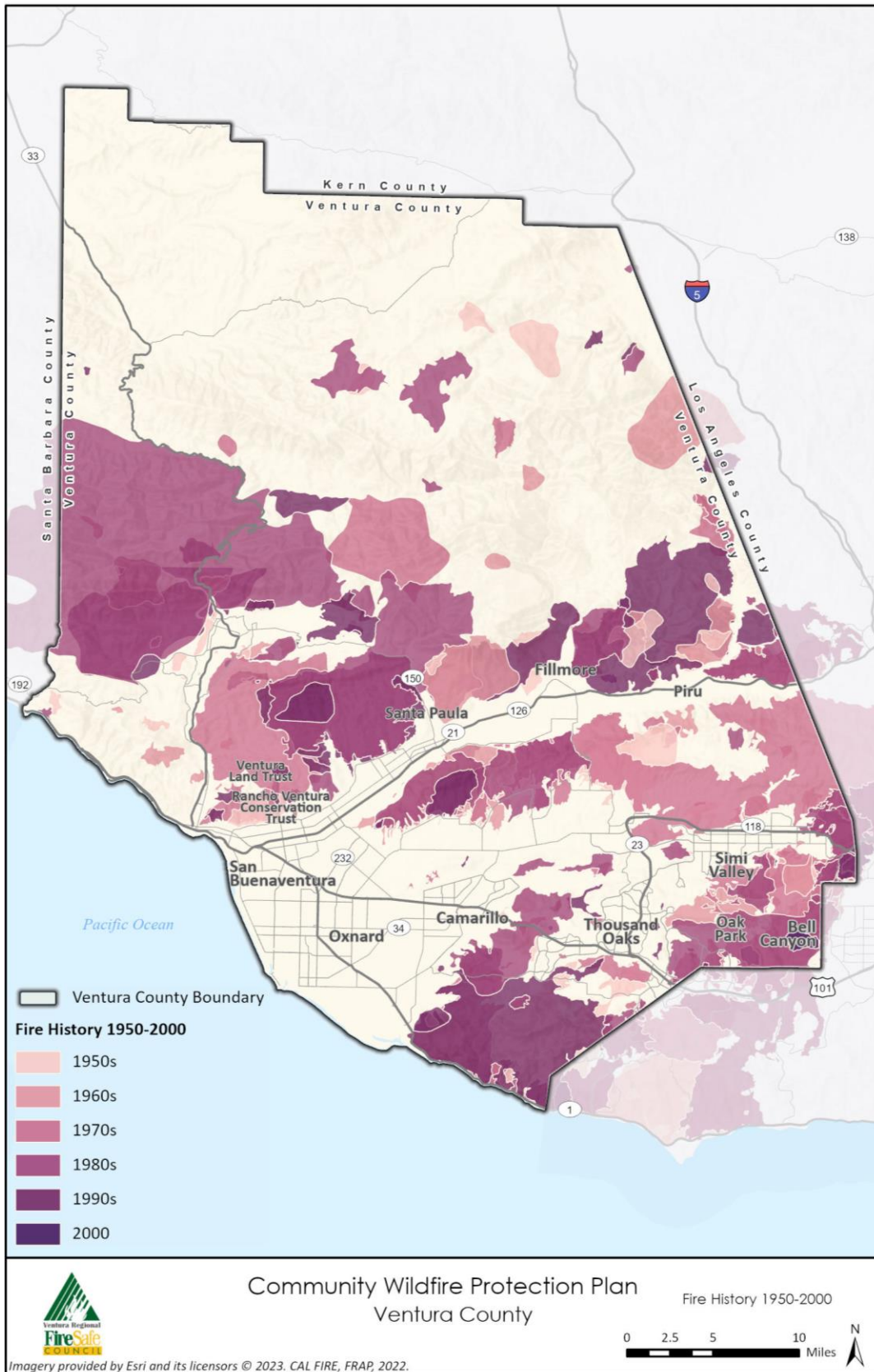




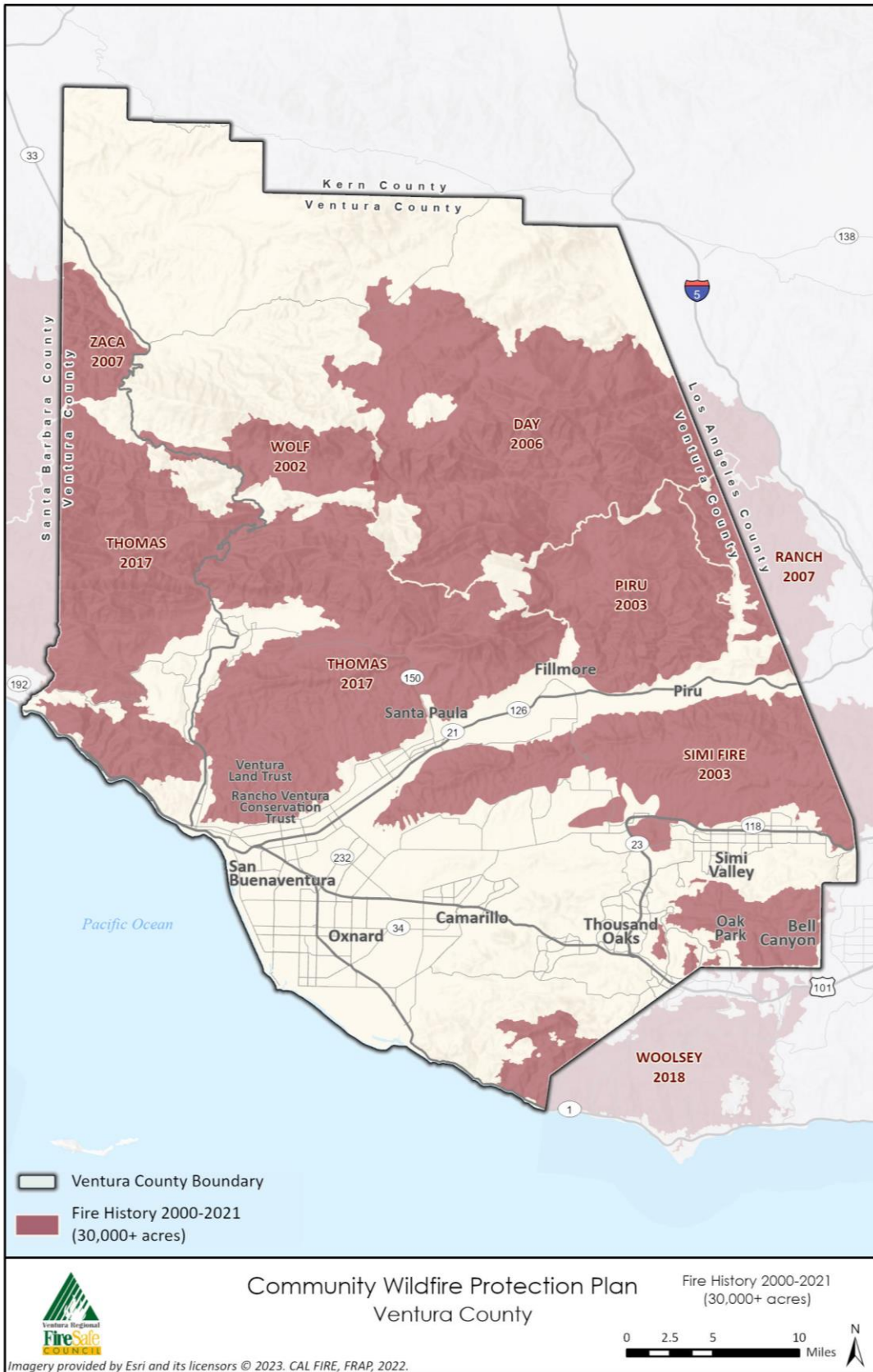
**Figure 9 Ventura County Fire History 1900-1940**



**Figure 10 Ventura County Fire History 1950-2000**



**Figure 11 Ventura Fire History 2000-2021 ( $\geq 30,000$  acres)**




**Community Wildfire Protection Plan**  
 Ventura County

Fire History 2000-2021  
 (30,000+ acres)

0 2.5 5 10 Miles

Imagery provided by Esri and its licensors © 2023. CAL FIRE, FRAP, 2022.



## COMMUNITY IMPACTS DUE TO RECENT FIRES

Wildfires can impact communities in many ways, including disrupting transportation, communications, electrical and gas utilities, water supplies and other areas of infrastructure. They can also affect the public health and safety both physically, such as the effects of smoke and fire creating poor air quality, loss of property, crops, resources, animals, and people.<sup>21</sup> And they can impact the general population in areas of mental health, stress, and economic vitality due to loss of work, personal property, businesses, and as we've seen in recent years, the devastation of entire communities such as that in Paradise and Greenville California.

Communities in Ventura County were heavily impacted by the Thomas Fire and Woolsey Fire that struck Ventura and Santa Barbara Counties in December of 2017 and November 2018.

Between the Thomas and Woolsey Fires, nearly 400,000 acres were burned and approximately 2800 structures were lost. Tragically, those two fires alone claimed the lives of five people as well. It cannot be overstated that the effects following large wildfires can linger on for many months and even years. Accessing the availability of resources for community members impacted by fire can often be a difficult path to navigate depending on how post-fire relief efforts are managed and whether disaster victims are readily able to find those resources. Thousands of low-wage immigrant workers throughout Ventura and Santa Barbara Counties were impacted by the disasters but excluded from relief due to the additional challenges of information access caused by language barriers, education, or even immigration status. Some of these vulnerable populations may very well have lacked critical emergency information during the Thomas and Woolsey Fires. Though emergency warnings can be delivered in multiple languages, it can be challenging for government, including law enforcement, to identify and deliver emergency warning information in all languages that may exist within a given community.

Heavy smoke from the fires filled the air for weeks, creating unsafe conditions for outdoor workers, including construction workers, utility workers, and farmworkers, to name a few. After the Thomas Fire, California state regulators developed the nation's first enforceable workplace safety standards for wildfires, requiring outdoor employers to provide respirator masks when air quality is measured to be harmful.<sup>22</sup>

Ventura County has also experienced regional impacts to housing and transportation due to wildfire. After the Thomas Fire, the 101 Freeway was closed for weeks and thousands of people who commute to jobs in Santa Barbara from Ventura County were forced to take extreme measures to get to work. The structure loss caused by these fires also impacted the housing inventory as many residents were displaced within the community and forced to seek alternate shelter in the limited amount of housing units available. The destruction of property also impacts the property tax base which can help support government services to the community.

As described above, the community impacts caused by wildfire destruction are broad and far reaching, giving rise to the importance of wildfire prevention, preparation, and mitigation efforts, which requires the awareness, education, understanding, and most importantly, the participation of the entire community to reduce the risk.

---

<sup>21</sup> World Health Organization. 2023. Health Topics, Wildfire. Retrieved from [https://www.who.int/health-topics/wildfires#tab=tab\\_1](https://www.who.int/health-topics/wildfires#tab=tab_1)

<sup>22</sup> Central Coast Alliance United for A Sustainable Economy (CAUSE). N.d. Community Resilience in the Thomas Fire. Retrieved from <https://causenow.org/our-work/community-resilience-thomas-fire>

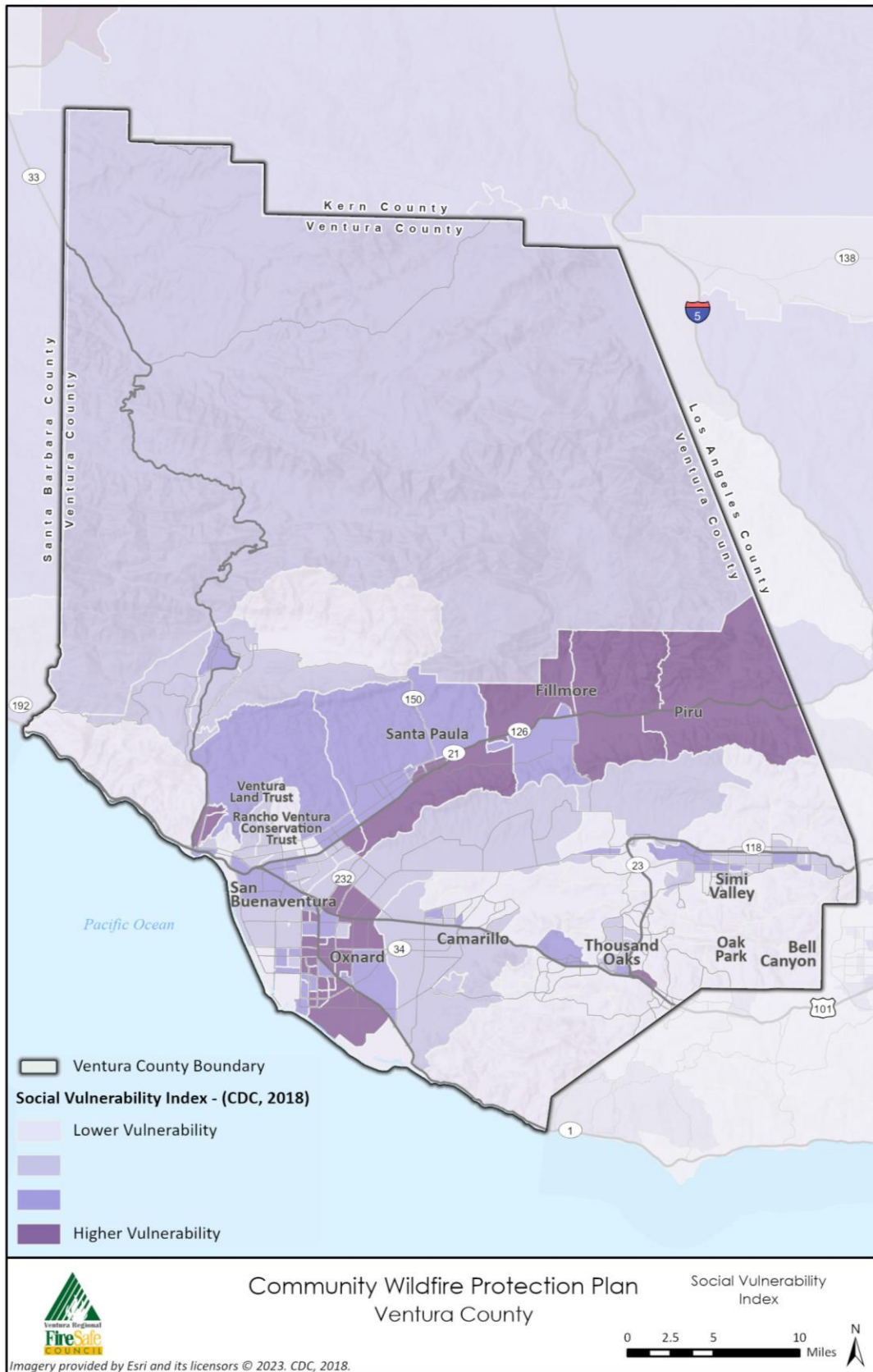
## VENTURA COUNTY SOCIAL VULNERABILITY

The CWPP utilizes the Center for Disease Control and Prevention (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR) and Social Vulnerability Index (SVI) to assess the geographic spread and proportion of priority populations within the county who may be vulnerable to wildfire. As defined by the CDC, social vulnerability refers to the potential negative effects on communities caused by external stressors on human health.<sup>23</sup> The SVI uses U.S. Census data to determine the social vulnerability of every census tract in the U.S. The SVI ranks each tract on 16 social factors, including lack of vehicle access, income-level, crowded housing, and groups them into four related themes: socioeconomic status, household characteristics, racial and ethnic minority status, and housing type/transportation. The County's SVI, as seen in Figure 12, illustrates areas with high proportions of priority populations and areas where targeted wildfire mitigation and emergency preparedness efforts should be considered.

---

<sup>23</sup> Center for Disease Control and Prevention (CDC). 2022. At a Glance CDC/ATSDR Social Vulnerability Index

Figure 12 Social Vulnerability and Priority Populations in the County





## D. ECONOMY AND BUILT INFRASTRUCTURE

This section provides an overview of tourism, agriculture, infrastructure, economic impacts of wildfire, and firefighting resources in Ventura County.

### TOURISM

Ventura County has numerous scenic destinations that draw thousands of visitors to the area. Local businesses that serve the tourism market include hospitality (accommodation and food service), agriculture, and recreation. The County encourages the development of sustainable and innovative visitor-serving attractions that expand on the tourism market in Ventura County and add to the quality of life for residents.<sup>24</sup>

### AGRICULTURE

Ventura County's temperate climate with warm, wet winters and hot, dry summers coupled with fertile soils, supports the cultivation of diverse agricultural commodities, including strawberries, celery, lemons, raspberries, avocados, nursery stock, tomatoes, peppers, cut flowers, cabbage, and kale. According to the State of California, Ventura County ranked eighth among California counties in total crop value in 2017 based on data from the County Agricultural Commissioner's Annual Crop and Livestock Report.<sup>25</sup>

### INFRASTRUCTURE

In Ventura County, many of the housing units and businesses are within the Wildland Urban Interface, and even more are in the Ember Zone, which is any area within one mile of natural vegetation. Structures in these areas are priority assets. Assets at risk within the county include structure, oil production facilities, communication infrastructure, agricultural orchards, and rangeland.<sup>26</sup>

### ECONOMIC IMPACTS OF WILDFIRE

Catastrophic wildfires take a large economic toll on communities through property losses, decreased tourism, and disruptions to labor across industries. In the west county communities of Ventura, Ojai, Santa Paula, and Fillmore, the Thomas Fire may have impacted some 17,000 jobs in the retail, hospitality, and food service sectors. Extrapolating from regional economic data for Ventura County, the loss in retail and other services sales in the fire impacted areas could be as much as \$175 million. The Ventura County Agricultural Commissioner's Office suggests the Agriculture economy was hit by a \$171 million loss, and that does not wholly recognize lost hours and wages to labor and impacts to infrastructure and sales. In Ojai, the leisure and hospitality sector was closed for 5 weeks, impacting some 1,300 jobs and 30 percent of the Valley's economy. An informal but conservative calculation of Ojai Valley lost hotel room rental income is more than \$3.5 million.<sup>27</sup>

---

<sup>24</sup> Ventura County. 2020. 2040 General Plan Chapter 10 Economic Vitality Element. Retrieved from [https://docs.vcrma.org/images/pdf/planning/plans/Final\\_2040\\_General\\_Plan\\_docs/VCGPU\\_10\\_Economic\\_Vitality\\_Element\\_2020\\_09\\_15\\_web.pdf](https://docs.vcrma.org/images/pdf/planning/plans/Final_2040_General_Plan_docs/VCGPU_10_Economic_Vitality_Element_2020_09_15_web.pdf)

<sup>25</sup> Ventura County. 2020. 2040 General Plan Chapter 8 Agriculture Element. Retrieved from [https://docs.vcrma.org/images/pdf/planning/plans/Final\\_2040\\_General\\_Plan\\_docs/VCGPU\\_08\\_Ag\\_Element\\_2020\\_09\\_15\\_web.pdf](https://docs.vcrma.org/images/pdf/planning/plans/Final_2040_General_Plan_docs/VCGPU_08_Ag_Element_2020_09_15_web.pdf)

<sup>26</sup> Ventura County Fire Protection District. 2022. Unit Strategic Fire Plan. Retrieved from <https://osfm.fire.ca.gov/media/ppvfu1q/2022-ventura-county-unit-fire-plan.pdf>

<sup>27</sup> America's Small Business Development Center California Los Angeles Network. N.d. Thomas Fire Disaster Response and Business Recovery Summary. Retrieved from <https://www.cityofventura.ca.gov/DocumentCenter/View/11730/SBDC-DISASTER->

Based on insurance claims, the damages are estimated to cost \$1.8 billion. The Small Business Administration (SBA) allowed people to register for low-interest disaster loans.<sup>28</sup> The Thomas Fire caused \$171,296,703 in damages to local agriculture and potentially affected 10,289 acres of irrigated cropland.<sup>29</sup> In a preliminary disaster report to the U.S. Department of Agriculture, Ventura County Agricultural Commissioner Henry Gonzales estimated more than 10,289 acres of irrigated cropland and another 60,000 acres of rangeland in the county had been affected by the fire. He estimated the cost of the damage to current and future crops, machinery and equipment, dwellings, service buildings and other structures at nearly \$171.3 million, with avocados and citrus crops suffering the highest losses. The estimates do not include wage losses of farm employees.<sup>30</sup>

This CWPP aims to reduce the costs and losses associated with wildfires by including cost-effective policies that increase the community's resilience to wildfire. In addition, having a CWPP allows for the community to apply for grants for federal cost share on local fuels treatment projects.

## FIREFIGHTING RESOURCES

### State Framework

CAL FIRE is responsible for fire protection within SRA. SRA is found in 56 of California's 58 counties and totals more than 31 million acres.

In most cases SRA is protected directly by CAL FIRE, however, in Kern, Los Angeles, Marin, Orange, Santa Barbara and Ventura counties, SRA fire protection is provided by the counties under contract with CAL FIRE. Known as "Contract Counties", they protect 3.4 million acres of SRA.

Under this agreement, Contract Counties are responsible for providing initial attack response to fires on SRA within their counties. CAL FIRE provides funding to the six counties for prevention and suppression of wildland fire on SRA. This funding provides fire protection services including salary and wages of suppression crews, maintenance of firefighting facilities, pre-fire management positions, special repairs, and administrative services. Currently, the state funds 68 fire stations, 84 fire engines, 12 bulldozers, 16 fire prevention officers, and 42 positions within the 6 emergency command centers of the six counties.

CAL FIRE continues to provide other services to Contract Counties including urban forestry grants, resource management assistance, fire investigation support, and training.<sup>31</sup>

---

#### RESPONSE-AND-RECOVERY-

REPORT?bidId=#:~:text=HIGHLIGHTED%20REGIONAL%20ECONOMIC%20IMPACT&text=The%20Ventura%20County%20Agricultural%20Commissioner's,Page%202%20infrastructure%20and%20sales

<sup>28</sup> The Bottom Line, University of California Santa Barbara. 2018. Charting the Financial Damage of the Thomas Fire. Retrieved from <https://thebottomline.as.ucsb.edu/2018/04/charting-the-financial-damage-of-the-thomas-fire>

<sup>29</sup> VC Star. 2018. Ventura County agriculture suffers over \$170 million in damages from Thomas Fire. Retrieved from <https://www.vcstar.com/story/money/business/2018/01/23/over-170-million-damage-sustained-ventura-countys-agricultural-industry-thomas-fire-according-data-p/1055678001/>

<sup>30</sup> Agriculture and Natural Resources, University of California. 2018. Estimates of Agricultural Damage from Thomas Fire. Retrieved from <https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=26006>

<sup>31</sup> California Department of Forestry and Fire Protection. (n.d.). Cooperative Efforts. Retrieved from <https://www.fire.ca.gov/programs/fire-protection/cooperative-efforts/#:~:text=Contract%20Counties&text=In%20most%20cases%20SRA%20is,3.4%20million%20acres%20of%20SRA.>

## Ventura County Fire Department

Ventura County Fire Department is an all-risk, full-service department, composed of 577 men and women. The Department provides fire protection, medical aid, rescue, hazardous material response, and a variety of other services to the public. In addition to the Ventura County Fire Department, there are two local full-service fire departments; the City of Oxnard with eight fire stations and the City of Ventura with six fire stations. The City of Fillmore has one local fire station augmented with reserve firefighters. Local operations are described in further detail in Section II *Local Community Snapshots*.

As of June 2023, the Department has 33 stations serving a population of more than 480,000 in seven cities – Thousand Oaks, Simi Valley, Moorpark, Camarillo, Port Hueneme, Santa Paula, Ojai, and the unincorporated areas of the County (see Figure 13). The Department operates four Administration and Support facilities, 35 first-run fire engines, one first-run Quint, 16 reserve fire engines, 11 wildland fire engines, five ladder trucks (including two reserves), five water rescue and fire boat craft, three paramedic squads, 20 command vehicles, 12 pieces of heavy equipment (bulldozers, etc.), 3 type one helicopters, 3 type one hand crews, and 33 other emergency response vehicles. The Department responds to an average of 228 calls for service every day.

The Department is divided into five battalions and several specialized units.

- Battalion 1 – Stations 50, 52, 54, 55, 56, and 57, primarily within the city of Camarillo and the surrounding area. Battalion 1 is home to the special operations units for Hazardous Materials, Crash/Rescue, Water Rescue, and Urban Search and Rescue.
- Battalion 2 – Stations 20, 21, 22, 23, and 25 covering the city of Ojai, unincorporated areas in the northern part of the county and District areas near the cities of Santa Paula and Ventura.
- Battalion 3 – Stations 30, 31, 32, 33, 34, 35, 36, and 37 covering the city of Thousand Oaks and the greater Conejo Valley.
- Battalion 4 – Stations 40, 41, 42, 43, 44, 45, 46, and 47, primarily within the cities of Moorpark and Simi Valley.
- Battalion 5 – Stations 26, 27, 28, 29, 51, and 53, covering the city of Port Hueneme and District areas along the Santa Clara River valley and the Malibu coastline.

In addition to these on-duty stations, the Department has emergency response agreements with other fire agencies within Ventura County and immediately adjacent to it. This includes Los Angeles County Fire, Santa Barbara County Fire, Kern County Fire, CAL FIRE, the U.S. Forest Service, Federal Fire, and the cities of Los Angeles, Oxnard, Ventura, and Fillmore.

The Ventura County Regional Dispatch Center system handles fire and emergency medical calls for the five fire agencies in the County, including Ventura County, Oxnard, Ventura, Fillmore Fire Department, and the Federal Fire Department serving Naval Base Ventura County. Additionally, VCRD dispatches three ambulance providers, Gold Coast, Lifeline Medical Transport, and American Medical Response (AMR).

The Ventura County Fire Department has a Unit Strategic Fire Plan that works with stakeholders and cooperators to create programs, policies, and procedures that will make the residents of Ventura County safer. The goal of the Ventura County Fire Department Unit Strategic Fire Plan is to prevent the loss of life from wildfires, reduce the amount of property destroyed by them, and reduce the total cost of fighting wildfires. The Ventura County Unit focuses on its fire prevention goal by addressing risk factors and recommending strategies to

mitigate risks.<sup>32</sup> This CWPP will integrate priorities from the Ventura County Unit Strategic Fire Plan to support the goal of creating a safer Ventura County. An effective CWPP can work in concert with the local fire authorities to bolster efforts in planning, education, and implementation of projects using grant funding and workforces otherwise unavailable.

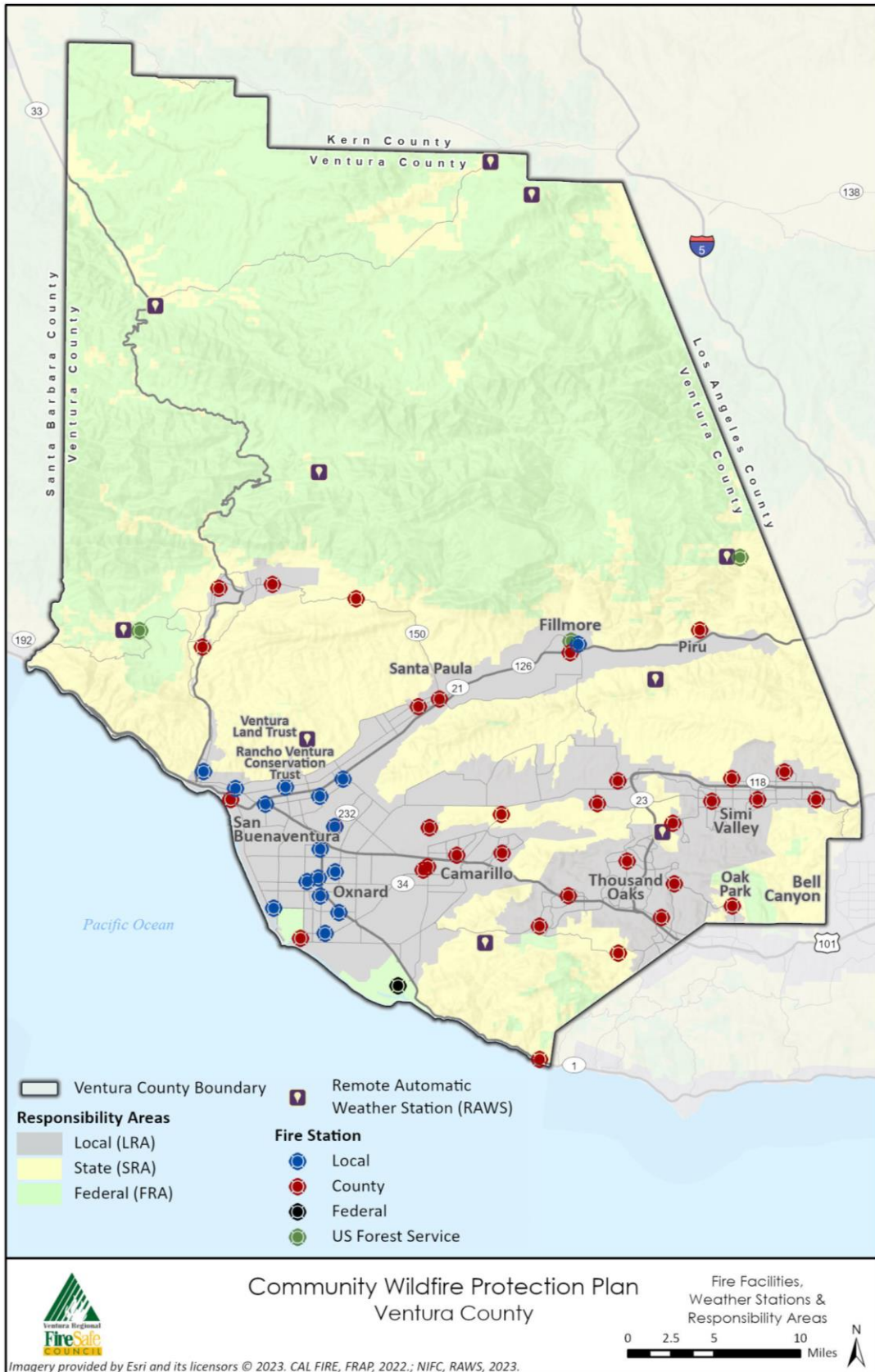
Fire preparedness resources include the Ventura County Fire Chiefs Association and the Ventura County Wildfire Collaborative. The Ventura County Fire Chiefs Association has Ventura Regional Management monthly meetings where Chief of Officers discuss operations and budget. These meetings include the Office of Emergency Services, Ventura Police Department, and Emergency Medical Services. Through regional collaboration, the Ventura County Wildfire Collaborative will work to coordinate resources, advise local and state agencies, work with the community, and secure funding to help prevent and recover from wildfires.<sup>33</sup>

---

<sup>32</sup> Ventura County Fire Protection District. 2022. Unit Strategic Fire Plan. Retrieved from <https://osfm.fire.ca.gov/media/ppvfuu1q/2022-ventura-county-unit-fire-plan.pdf>

<sup>33</sup> Ventura County Resource Conservation District. N.d. Ventura County Wildfire Collaborative. Retrieve from <https://vcrd.org/vcwc/>

Figure 13 Ventura County Fire Facility Locations



## City Fire Management

The cities of Oxnard, Ventura, and Fillmore provide fire protection in the region. Both the City of Ventura and City of Oxnard Fire Departments provide a full range of emergency and non-emergency services to the community. These include fire suppression, urban search and rescue, emergency medical service, hazardous material response, vehicle and industrial accident response, ocean and surf rescue, public fire and life safety education, fire investigation, records management, regulation of hazardous material uses, disaster preparedness, community disaster response training, review and inspection of new construction.<sup>34</sup> <sup>35</sup> The Operations Division of the City of Ventura Fire Department is comprised of six fire stations. Oxnard Fire Department is comprised of eight fire stations. The City of Fillmore has one fire station, composed of 5 full time staff members including one paid chief, 3 paid captains, and one paid disaster coordinator.<sup>36</sup>

## Ventura County Wildland and Aviation Units

The Wildland Unit provides hand crew and bulldozer resources in the construction of fire control lines during wildfire suppression activities. When not engaged with fighting fire, the unit constructs and maintains fire breaks and fire roads, performs fuel management projects, and carries out other mitigation and prevention tasks. The Wildland Unit also operates with the Ventura County Aviation Unit, which is a combined unit with the Ventura County Fire Department and Ventura County Sheriff Office. The unit provides public safety aviation services for fire and rescue incidents, including paramedic crew members, and assistance with marijuana eradication. Ventura County's Aviation Unit has 8 helicopters available for fire department missions. Three Type 1 helicopters are hoist rescue, forward looking infrared (FLIR), firefighting capable via tank or collapsible bucket, with a 10-person fly crew capability. The four Type 2 helicopters are hoist capable, 8-person Fly crew-carrying, tank capability, and one Type 3 helicopter is available for mapping and FLIR missions.<sup>37</sup>

## Federal Fire Management

Two of California's eight Channel Islands are also part of the county: Anacapa Island, which is the most visited island in Channel Islands National Park, and San Nicolas Island, which is operated by the U.S. Navy. The remaining Channel Islands include Santa Rosa, San Miguel, and Santa Cruz. The National Park Service's management practices are informed by their 2006 Fire Management Plan (last updated in 2013). Under the Fire Management Plan, the Park will continue to utilize prescribed fire in fire and fuels management, especially for burning vegetation management related debris piles.<sup>38</sup> The wildland fire management policies of the National Park Service support Channel Islands National Park's resource management goals. The primary goals are to provide for firefighter and public safety, protect natural and cultural resources, and protect human developments from wildland fire.<sup>39</sup> The Park Service interfaces routinely with other regional land managers, including Los Padres National Forest Fire and Aviation, California

---

<sup>34</sup> City of Oxnard. N.d. Oxnard Fire Department's Missions Statement | Fire Department. Retrieved from <https://www.oxnard.org/oxnard-fire-departments-mission-statement-fire-department/>

<sup>35</sup> City of Ventura. N.d. Fire Department. Retrieved from <https://www.cityofventura.ca.gov/2091/About-Us>

<sup>36</sup> City of Fillmore. 2022. Community Wildfire Protection Plan.

<sup>37</sup> Ventura County Fire Protection District. 2022. Unit Strategic Fire Plan. Retrieved from <https://osfm.fire.ca.gov/media/ppvfuu1q/2022-ventura-county-unit-fire-plan.pdf>

<sup>38</sup> National Park Service. N.d. Channel Islands National Park Fire Management Plan and EA. Retrieved from <https://parkplanning.nps.gov/projectHome.cfm?projectID=105069>

<sup>39</sup> National Park Service. 2022. Channel Islands Fire Management. Retrieved from <https://www.nps.gov/chis/learn/management/firemanagement.htm>



Department of Forestry and Fire Protection, the Ventura County Fire Department, and the City of Ventura Fire Department.

The Santa Monica Mountains National Recreation Area was established to preserve the unique Mediterranean ecosystem and to maintain the area's significant natural, cultural, and scenic resources. High intensity wildfires are a characteristic feature of this landscape and have carried a heavy social cost from the large number of homes lost and the massive firefighting efforts required to protect lives and property in the wildland urban interface. Fire management actions in the Santa Monica Mountains National Recreation Area are guided by the park's Fire Management Plan and the policies of the National Cohesive Wildland Fire Management Strategy. In the Santa Monica Mountains National Recreation Area (SMMNRA) the Wildfire Management Program protects both its Mediterranean ecosystem and its local communities by working to have fewer wildfires and burned homes and less fire-related ecosystem disturbance. To do this, the park works together with Ventura County Fire Department, Los Angeles County Fire Department and Los Angeles City Fire Department through local agreements, the CA Fire Protection Agreement, and the CA Fire Assistance Agreement to suppress fires in the Recreation Area under the Incident Command System.<sup>40</sup>

Los Padres National Forest encompasses approximately 1.75 million acres of central California's scenic Coast and Transverse Ranges. The "main division" of the forest includes lands in Ventura County. Management of Los Padres National Forest focuses on protecting and enhancing watersheds, providing recreation, wilderness opportunities, and promoting use of the forest as a "living laboratory" for ecological diversity and scientific research. There is a considerable risk of wildfire in Los Padres National Forest resulting from a combination of weather, vegetation, terrain, and human use.<sup>41</sup> The forest's Fire Program is supported by approximately 350 permanent and temporary personnel and is comprised of four main functions: management and administration, fire prevention, wildland fire suppression and preparedness, and hazardous fuels program. Management and administration provide direction and oversight of all fire management activities including fighting forest fires, adhering to approved employee safety practices, community protection and forest health projects, educating the public and responding to inquiries.<sup>42</sup>

## **E. PROBABILITY OF FUTURE RISK**

In the past, fires burning more than 1,000 acres have occurred about every one to three years. The extent of future events will depend on specific conditions at the time of the fire.

### VENTURA COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN RISK ASSESSMENT

The Ventura County Multi-Jurisdictional Hazard Mitigation Plan details a risk assessment which includes jurisdiction-specific natural hazard event history, hazard risk ranking, and jurisdiction-specific vulnerabilities.<sup>43</sup>

Table 5 shows a local ranking for all hazards of concern for which the Hazard Mitigation Plan provides complete risk assessments. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property,

---

<sup>40</sup> National Park Service. 2022. Santa Monica Mountains Fire Management. Retrieved from <https://www.nps.gov/samo/learn/management/firemanagement.htm>

<sup>41</sup> United States Department of Agriculture (USDA) Forest Service Los Padres National Forest. N.d. About the Los Padres National Forest. Retrieved from <https://www.fs.usda.gov/detailfull/lpnf/about-forest/about-area/?cid=stelprdb5104688&width=full>

<sup>42</sup> United States Department of Agriculture (USDA) Forest Service. 2005. Land Management Plan Part 2 Los Padres National Forest Strategy.

<sup>43</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

and the economy. Mitigation actions in the Hazard Mitigation Plan primarily target hazards with high and medium rankings. This ranking was developed for the whole of Ventura County as the planning area. More specific Hazard Risk Rankings were developed for each jurisdictional annex within the county. In other words, not every area of the county is at high risk for dam failure for example, but the risk of dam failure within the county has been determined to be high overall.

**Table 5 Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Dam Failure	34	High
2	Landslide	33	High
3	Earthquake	32	Medium
4	Severe Weather	24	Medium
5	Wildfire	24	Medium
6	Severe Storms	24	Medium
7	Flooding	18	Medium
8	Tsunami	12	Low
9	Sea Level Rise/Erosion	12	Low
10	Drought	9	Low

Source: Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

## VRFSC WILDFIRE ANALYSIS AND ROADWAY MITIGATION PRIORITIZATION

With support from FlameMapper, VRFSC conducted a wildfire risk analysis to understand prevention priorities within Ventura County. The analysis evaluated vulnerability of building infrastructure, regional roadways, and local roadways. The vulnerability of building infrastructure in the county was evaluated by mapping areas where structures are within state designated wildfire hazard areas or are within 1,000 feet of a historic fire perimeter. Based on this analysis, there are varying levels for structure vulnerability across the county. The regional roadway vulnerability showed a few areas along the roadway system that are directly vulnerable to wildfire; these occur mostly along State Route 150, State Route 33, State Route 23 (south of US 101). Lastly, the analysis combined wildfire modeling with an evacuation model to evaluate the vulnerability of priority evacuation areas on local roadways throughout the county. The results of this analysis are included in Appendix B *FlameMapper Assessment* and were used to inform the VRFSC’s Priority Action List that is included in Section III *Priority Actions*.

## SECTION II: LOCAL COMMUNITY SNAPSHOT

This CWPP provides county-scale planning information and also recognizes and supports more local fire planning efforts that address specific city, community, or neighborhood-scale needs related to wildfire prevention. This countywide CWPP covers all ten incorporated municipalities in the county and thirteen communities in unincorporated Ventura County. Cities in Ventura County and their populations, based on the United States Census, are listed below (information on unincorporated county communities is provided further below).<sup>44</sup>

- City of Camarillo (70,858)
- City of Fillmore (16,496)
- City of Moorpark (35,975)
- City of Ojai (7,590)
- City of Oxnard (201,879)
- City of Port Hueneme (21,712)
- City of Santa Paula (30,759)
- City of Simi Valley (125,975)
- City of Thousand Oaks (125,754)
- City of Ventura (109,925)

Each city and community in Ventura County have a unique history and identity. Below is a summary of what sets each area apart, including the existing firefighting resources, and wildfire planning documents.

### A. CITY OF CAMARILLO

Camarillo encompasses about 20 square miles in west Ventura County at the base of the Conejo Grade, within the Oxnard Plain. The city is eight miles from the ocean and the Pt. Mugu entrance to Naval Base Ventura County. Homes along the city's northern border are nestled among rolling hills and citrus groves; the northernmost boundary traverses the Las Posas Country Club. Pleasant Valley Road marks much of Camarillo's southern border, though the southernmost point is on Howard Road, near the southeast corner of the city. The eastern edge of Camarillo is situated partially up the Conejo Grade, along the Ventura Freeway (Hwy 101).<sup>45</sup> The vegetation in Camarillo consists mostly of California mixed evergreen forest and woodland, chaparral, shrubland, and grassland.<sup>46</sup>

Fire suppression and preventative services in Camarillo are provided by the Ventura County Fire Department. The County Fire Department has three fire stations located within the City of Camarillo: Fire Stations 50, 52, and 54. Camarillo has an Emergency Operations Plan (EOP) prepared in accordance with the California Standardized Emergency Management System

<sup>44</sup> United States Census Bureau. 2021. QuickFacts. Retrieved from <https://www.census.gov/quickfacts/fact/table/US/PST045222>

<sup>45</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>46</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

(SEMS) and the National Incident Management System (NIMS) standards. The EOP addresses the city of Camarillo’s planned response to emergencies associated with natural disasters and technological incidents. The EOP also provides the locations of the Camarillo’s Emergency Operations Center and alternate locations, as well as the Red-Cross pre-identified emergency shelters and alternate shelter sites throughout Camarillo.<sup>47</sup>

## **B. CITY OF FILLMORE**

Fillmore is a small city in the Santa Clara River Valley in Ventura County about 25 miles from the Los Angeles County line, below San Cayetano Mountain, a peak of the Topatopa Mountains in the Los Padres National Forest. Fillmore is within a historic Ventura County agricultural and tree-farming belt. The vegetation is typical Southern California chaparral and Sagebrush to the north and to the east. To the south is the Santa Clara River bottom and Riparian area, with highly flammable Arundo, and non-native plant species that have overtaken much of the Santa Clara River bottom in various parts from Santa Clarita to the Pacific Ocean. To the west is the Sespe River drainage, as well as chaparral.

Fillmore’s water tanks and pumping systems are largely situated on the hillside above town to the north. Residential structures are located on the edges of town and are closely located to areas of dry vegetation and chaparral. Fillmore is bordered by the Santa Clara River to the South, Sespe creek to the west and Pole creek to the east. Several parks are also on the border of city limits – Shiells Park in the Northwest, Two Rivers Park in the Southwest, and Rio Vista Park along the city’s southeasternmost side. Within Fillmore’s boundaries, there are a few agricultural orchards. Just outside Fillmore’s boundaries, the city is surrounded by orchards, row crops, farms, and ranches. The Fillmore also owns an equestrian facility on the south side of the Santa Clara River.

Fillmore is served by multiple agencies with firefighting responsibilities, including its own City of Fillmore Fire Station 91, augmented with reserve firefighters, and local and County mutual aid – Ventura County Fire Station 27 and the US Forest Service Station #54. Community efforts to protect the community include continuous, year-round use of public agency and non-profit (Team Rubicon) hand-crews to reduce fuel load. Abatement efforts take place in the summer as well as the fall to prepare for the Santa Ana winds. Fillmore Fire Department takes advantage of fuel reduction activities to use as training and preparedness exercises for multiple agencies. The City of Fillmore’s CWPP outlines priorities, completed projects, and future projects for the community with a strong emphasis on providing more education and outreach for underserved communities.<sup>48</sup>

## **C. CITY OF MOORPARK**

The City of Moorpark is in the eastern portion of Ventura County. Moorpark encompasses approximately 12 square miles. It is bounded by the City of Simi Valley to the east, the Tierra Rejada Valley, and City of Thousand Oaks to the south, and unincorporated lands to the west and north. Lands west of the city are largely agricultural and protected from development by the Save Open Space and Agricultural Resources voter approved initiatives requiring the public’s vote before any agricultural or open space lands are rezoned for development. Lands to the north of Moorpark’s boundary are largely mountainous.<sup>49</sup> Vegetation types in Moorpark mostly

---

<sup>47</sup> City of Camarillo. 2013. General Plan Safety Element. Retrieved from <https://cms7files.revize.com/camarilloca/Departments/Community%20Development/General%20Plan/Safety.pdf>

<sup>48</sup> City of Fillmore. 2022. Community Wildfire Protection Plan.

<sup>49</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

consist of California mixed evergreen forest and woodland, chaparral, shrubland, grassland, and coastal scrub.<sup>50</sup>

Fire suppression and preventative services in Moorpark are provided by the Ventura County Fire Department. The County Fire Department has two fire stations located within the City of Moorpark: Fire Stations 40 and 42. Moorpark has an Emergency Operations Center (EOC) that prepares for emergencies and major disasters such as fires, floods, earthquakes, and acts of terrorism. The EOC also prepares for major planned events in the city that require involvement by multiple city departments and integration with outside agencies, such as schools, special districts, other cities, the county, state, and federal agencies, as well as the private sector. The City's Emergency Operations Plan establishes a comprehensive, all-hazards approach to managing disasters and emergencies across a spectrum of phases including preparedness, response, recovery, and mitigation.<sup>51</sup>

## **D. CITY OF OJAI**

Ojai is approximately four-square miles with a population of about 7,500, making it the smallest city in Ventura County. Located about 12 miles from the coast, in the Ojai Valley, Ojai is northwest of Los Angeles and east of Santa Barbara. Ojai is a tourism destination known for its boutique hotels, recreation opportunities, hiking, and farmer's market of local organic agriculture. The Ojai Valley sits in a unique position in Ventura County, surrounded by Open Space with dozens of outdoor recreation possibilities. The Ojai Valley Land Conservancy has permanently protected roughly 2,300 acres of open space through direct ownership and conservation agreements. The vegetation in Ojai consists of mostly California mixed evergreen forest and woodland, chaparral, grassland, coastal scrub, and western oak woodland.<sup>52</sup>

Fire protection in Ojai is provided by the Ventura County Fire Department. The County Fire Department has two fire stations located within the City of Ojai: Fire Stations 21 and 22. Ojai has a Disaster Resource Guide that includes how to get information during an emergency, communicating when the power is out, protective actions, traffic control during an evacuation, where to go (temporary evacuation shelters and refuge areas), schools and healthcare resources during an emergency, animal evacuation tips, and emergency kit suggestions.<sup>53</sup> The Ojai Valley Fire Safe Council is developing its first CWPP that will provide a community-based comprehensive wildfire risk mitigation plan for the Ojai Valley and the Ventura River Watershed.<sup>54</sup>

## **E. CITY OF OXNARD**

The City of Oxnard is the largest city in Ventura County. The moderate Mediterranean climate, fertile topsoil, and generally adequate groundwater supply provides year-round agricultural production on the Oxnard Plain. The city is about 27 square miles, extending from the Santa Clara River on the west to Del Norte Boulevard on the east, as well as just north of Highway 101 to the Pacific Ocean on the south. The vegetation in Oxnard mostly consists of California mixed evergreen forest and woodland, grassland, and coastal scrub.<sup>55</sup>

---

<sup>50</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

<sup>51</sup> City of Moorpark. N.d. Emergency Management. Retrieved from <https://moorparkca.gov/143/Emergency-Management>

<sup>52</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

<sup>53</sup> City of Ojai. N.d. Disaster Resource Guide for the Ojai Community. Retrieved from <https://indd.adobe.com/view/cc7e3639-ccc6-43e2-856d-90ffa2e2692>

<sup>54</sup> <https://firesafeojai.org/about-the-ojai-cwpp/>

<sup>55</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

The Oxnard Fire department provides a full range of emergency and non-emergency services to the community. There are 8 fire station in Oxnard.<sup>56</sup> The City has two emergency operations centers (EOC), and city personnel are regularly receiving EOC training and drills.<sup>57</sup> The City also periodically updates its Emergency Operations Plan which includes information on emergency management organization, legal authorities, emergency procedures, and emergency operations center.<sup>58</sup>

## **F. CITY OF PORT HUENEME**

Port Hueneme is a small coastal town located in Ventura County, just south of Oxnard and east of Channel Islands Harbor. The City is home to Naval Base Ventura County and the Port of Hueneme and about five miles to the south is Naval Air Station Point Mugu. Port Hueneme is primarily built out and has a total land area of about 4.5 square miles.<sup>59</sup> Port Hueneme is mostly developed. Vegetation present in the city includes coastal scrub and tidal marsh.<sup>60</sup>

The Ventura County Fire Department provides fire emergency response services in the City and is based at Fire Station 53.<sup>61</sup> Port Hueneme has an Emergency Operations Plan that provides structure and processes to respond to, and initially recover from, an emergency or disaster.<sup>62</sup>

## **G. CITY OF SANTA PAULA**

The City of Santa Paula is just under 6 square miles. Santa Paula is located 65 miles northwest of Los Angeles and 14 miles east of the City of Ventura and the coastline. Santa Paula is near the geographical center of Ventura County, situated in the rich agricultural Santa Clara River Valley. Santa Paula is surrounded by rolling hills and rugged mountain peaks in addition to orange, lemon, and avocado groves.<sup>63</sup>

Fire protection in Santa Paula is provided by the Ventura County Fire Department. The Ventura County Fire Department's Unit Strategic Fire Plan, and adopted standards and guidelines, serve to reduce fire hazards in the city.<sup>64</sup> There are two fire stations in Santa Paula: Fire Stations 26 and 29.

The City of Santa Paula is developing its first CWPP to help organize the community's efforts to protect itself against wildfire, and empower citizens to move in a cohesive, common direction.

## **H. CITY OF SIMI VALLEY**

The City of Simi Valley is in southeast Ventura County. The boundaries of the city extend from the Santa Susana Mountains in the north to the Simi Hills in the south and east to the San Fernando Valley, encompassing an area of 42 square miles. Simi valley is a residential

---

<sup>56</sup> City of Oxnard. N.d. Fire Station Locations | Fire Department. Retrieved from <https://www.oxnard.org/fire-station-locations-fire-department/>

<sup>57</sup> City of Oxnard. 2011. 2030 General Plan Goals and Policies. Retrieved from [oxnard.org/wp-content/uploads/2017/06/Oxnard-2030-General-Plan-Amend-12.2022-SMc.pdf](https://www.oxnard.org/wp-content/uploads/2017/06/Oxnard-2030-General-Plan-Amend-12.2022-SMc.pdf)

<sup>58</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>59</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>60</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

<sup>61</sup> City of Port Hueneme. 2022. General Plan. Retrieved from <https://www.ci.port-hueneme.ca.us/DocumentCenter/View/6130/2045-Port-Hueneme-General-Plan?bidId=>

<sup>62</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>63</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>64</sup> City of Santa Paula. 2020. 2040 General Plan Hazards and Public Safety Element. Retrieved from <https://spcity.org/DocumentCenter/View/1712/2040-General-Plan-Section-5---Hazards-and-Public-Safety-Element>



community with significant protected open space and parklands. Residential development makes up 71% of the city's total land area and parks and other public and semi-public uses (e.g., schools, cemeteries, regional landfill, and transportation rights-of-way) make up just over 20% of the land uses. Vegetation in Simi Valley mostly consists of California mixed evergreen forest and woodland, chaparral, grassland, and pacific coastal scrub.<sup>65</sup>

Fire protection services in the city are provided by the Ventura County Fire Department. There are four fire stations in Simi Valley: Fire Stations 41, 44, 45, and 46. Simi Valley has an Emergency Operations Plan (EOP) that describes the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies.<sup>66</sup>

## **I. CITY OF THOUSAND OAKS**

The City of Thousand Oaks is the second-largest city in Ventura County and is located 40 miles northwest of Downtown Los Angeles. The City forms the central populated core of the Conejo Valley.<sup>67</sup> The major types of vegetation found in Thousand Oaks, including coastal sage scrub and chaparral, provide a natural source of fire fuel. The climate of the region is one of the critical factors influencing the occurrence and severity of brush fires in the city. The hot dry summers leave the area hillsides susceptible to a major fire.<sup>68</sup>

Fire prevention and suppression services are provided in the City by the Ventura County Fire Department. The Fire Department has instituted a number of programs to minimize the potential for hazards including fire safety and fire prevention training, site inspections, and urban/wildland interface hazard mitigation programs. There are five fire stations located in Thousand Oaks: Fire Stations 30, 31, 33, 34, and 37.<sup>69</sup> The City adopted an Emergency Operations Plan (EOP) in 2020. The EOP describes the City's preparedness, response, mitigation, and recovery from local and national emergency incidents.<sup>70</sup>

## **J. CITY OF VENTURA**

The City of Ventura, officially named San Buenaventura, is a coastal city set against undeveloped hills and bordered by the Ventura and Santa Clara rivers. The western portion of the city stretches north along the Ventura River which is characterized by a narrow valley with steeply sloped areas along both sides. The steep slopes of the Ventura foothills are along the northern portion of the community. Much of the eastern portion is on a relatively flat alluvial coastal plain lying along the western edge of the Oxnard Plain.<sup>71</sup> Vegetation in the City of Ventura mostly consists of California mixed evergreen forest and woodland, chaparral, grassland, pacific coastal scrub, and tidal marsh.<sup>72</sup>

The City of Ventura has a Fire Department with six fire stations, each with an engine company and a minimum of three firefighter-paramedics on duty at any given time.<sup>73</sup> The Department has

---

<sup>65</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

<sup>66</sup> Simi Valley. N.d. Emergency Plan. Retrieved from <https://www.simivalley.org/departments/police-department/emergency-services/emergency-plan>

<sup>67</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>68</sup> City of Thousand Oaks. 2014. Safety Element. Retrieved from <https://www.toaks.org/home/showpublisheddocument/344/636081607385170000>

<sup>69</sup> Ventura County Fire Department. N.d. Fire Stations. Retrieved from <https://vcfd.org/services/operations/stations/>

<sup>70</sup> Ventura County Multi-Jurisdictional Hazard Mitigation Plan. 2022. Retrieved from [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf).

<sup>71</sup> City of Ventura. 2022. Community Wildfire Protection Plan.

<sup>72</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

<sup>73</sup> City of Ventura. 2022. Fire Strategic Plan. Retrieved from <https://www.cityofventura.ca.gov/2093/Fire-Strategic-Plan>

a five-year Fire Strategic Plan which addresses increased call volume and workload, possible operational changes, and staffing recommendations.<sup>74</sup> The City also has an Emergency Operations Plan which addresses the City's planned response to significant emergencies such as large-scale disasters that exceed the City of Ventura's resources and require an emergency response.<sup>75</sup> The City of Ventura's draft CWPP outlines priorities, completed projects, and future projects for structural hardening, defensible space, fuel treatment, evacuation planning, and other mitigation and preparedness projects.

The City of Ventura's Westside Community, also known as "The Avenue," is bounded by the Ventura River to the west, Foster Park to the North, the Pacific Ocean to the south, and the Ventura Hillsides to the east. Due to its proximity to the Los Padres foothills, the Westside faces the second greatest fire risk of any subarea in the city. This risk is only anticipated to increase due to climate change. The Westside Community Council is a group of dedicated volunteers who live or work in the city's Westside Community. The Council is developing a draft CWPP for the Westside community in an effort to actively create a better and safer neighborhood in which to live, work, and raise families.<sup>76</sup>

## **K. UNINCORPORATED VENTURA COUNTY**

Portions of unincorporated 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 FHSZ, as designated by CAL FIRE and FRAP, occur along the southern coast, and continue inland toward Simi Valley. Vegetation in the unincorporated areas of Ventura County mostly consists of California mixed evergreen forest and woodland, chaparral, grassland, Pacific coastal scrub, and western oak woodland.<sup>77</sup>

There are 13 Ventura County Unincorporated Communities (see Table 6). There are a variety of fire planning efforts in the unincorporated areas of Ventura County. Specifically, the communities of Bell Canyon, Oak Park, Piru, the Rancho Ventura Conservation Land Trust, and Ventura Land Trust all have localized draft CWPPs. Below is a summary of these areas and planning efforts.

---

<sup>74</sup> City of Ventura. 2022. Fire Strategic Plan. Retrieved from <https://www.cityofventura.ca.gov/2093/Fire-Strategic-Plan>

<sup>75</sup> City of Ventura. 2021. Emergency Operations Plan. Retrieved from [https://www.cityofventura.ca.gov/2156/Office-of-Emergency-Services#:~:text=The%20Emergency%20Operations%20Plan%20\(EOP,and%20require%20an%20emergency%20response.](https://www.cityofventura.ca.gov/2156/Office-of-Emergency-Services#:~:text=The%20Emergency%20Operations%20Plan%20(EOP,and%20require%20an%20emergency%20response.)

<sup>76</sup> Westside Community Council. 2022. Community Wildfire Protection Plan.

<sup>77</sup> LANDFIRE. 2020. Existing Vegetation Type. Retrieved from [https://landfire.gov/library\\_list.php?cat=1](https://landfire.gov/library_list.php?cat=1)

**Table 6 Ventura County Unincorporated Communities**

Census Designated Place	Population 2020
Bell Canyon	1,946
Casa Conejo	3,267
Channel Islands Beach (e.g., Hollywood Beach and Silver Strand)	2,870
El Rio	7,037
Lake Sherwood	1,759
Meiners Oaks	3,911
Mira Monte	6,618
Oak Park	13,898
Oak View	6,215
Piru	2,587
Santa Rosa Valley	3,312
Santa Susana	1,160
Saticoy	1,133

Source: Ventura County Multi-Jurisdictional Hazard Mitigation Plan [https://vcportal.ventura.org/OES/2022-03-01\\_VenturaHMP\\_Vol2\\_PublicReviewDraft-compressed.pdf](https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf)

## COMMUNITY OF BELL CANYON

Bell Canyon is an unincorporated community located in the southeast corner of Ventura County just across the county line from West Hills in Los Angeles County. There are approximately 2100 residents, 700 residences, a large Community Center, an Equestrian Center (6 buildings housing approximately 40 horses), a tennis center, a park, and equestrian and hiking trails in the 3.62 square mile community located completely within and surrounded by the Wildland Urban Interface. Bell Canyon is in SRA and in Very High FHSZ. The terrain is predominantly steep hills covered in chaparral with native and non-native trees especially near water sources. There are two water tanks that supply fresh water to the community and a single power line coming into the community from Southern California Edison. A principal asset is the single road coming in and out of Bell Canyon that provides the only access and that was blocked for a portion of a day during the Woolsey Fire.<sup>78</sup>

The Ventura County Fire Department provides fire protection to Bell Canyon. The Bell Canyon Volunteer Wildland Fire Department (BCVWFD) was formed in October 2020 in response to the Woolsey Fire, which destroyed dozens of homes and damaged many more in the community. The BCVWFD has a primary mission to protect Bell Canyon residents and property by supporting and augmenting local fire agencies. Members are trained wildland firefighters certified by the California Office of the State Fire Marshal/State Fire Training program. Bell Canyon’s CWPP developed by the Bell Canyon Fire Safe Council outlines priorities, completed

<sup>78</sup> Community of Bell Canyon. 2022. Community Wildfire Protection Plan.

projects, and future projects for the community with a strong emphasis on fuels treatment, home hardening education for residents, and performing various fuel modification projects.

## COMMUNITY OF PIRU

Piru is an unincorporated town located in eastern Ventura County, in the Santa Clara River Valley. Piru has a total area of approximately 2.8 square miles. The vegetation in this area is Southern California sage scrub and chaparral. To the south is the Santa Clara River bottom and Riparian area with highly flammable *Arundo*, a non-native plant species that has overtaken much of the Santa Clara River bottom in various parts from Santa Clarita to the Pacific Ocean.<sup>79</sup>

The Ventura County fire Station 28 in Piru provides fire protection services in the Piru and east Santa Clara Valley area. The station has been a strong center for the volunteer firefighter program over the years, producing many full-time firefighters from the ranks of volunteers. The station is staffed daily by three firefighters and houses a medic/engine, a brush engine, and a patrol.<sup>80</sup> Piru's CWPP outlines priorities, completed projects, and future projects for the community with a strong emphasis on educating the community and conducting fuel modification projects.

## COMMUNITY OF OAK PARK

Oak Park is an unincorporated community with approximately 14,000 residents living in more than 5,500 homes, apartments, and condominiums in an approximately 4.1 square mile area., it is bordered on the west by the North Ranch community of the city of Thousand Oaks, on the south by the L A County cities of Agoura Hills and Westlake Village, and north and east by Rancho Simi Recreation and Park District (RSRPD) and the Santa Monica Mountains National Recreation Area (SMMNRA). Oak Park is primarily a residential community with pockets of medium and high-density development interspersed with open space and parkways. Oak Park's first phase of development began in 1967 and the community was built out prior to 2010. The developed portions of Oak Park are primarily residential. The community also includes 9 schools, 3 business areas, and 11 parks. According to the U.S. Census Bureau, the Oak Park has a median household income of \$132,578.<sup>81</sup>

Oak Park is served by the Ventura County Fire Department and VCFD station 36 is located in the center of the community. The location near the Los Angeles County border has resulted in the development of a Mutual Response Agreement with the Los Angeles County Fire Department. The community has both LRA and SRA and the whole of Oak Park is designated as a Very High Fire Hazard Severity Zone. It is within the Simi Fuel Bed and features predominately oak woodlands, chaparral, coastal sage scrub, and grassland vegetation types. The area has a long history of wildfire and the 2018 Woolsey Fire destroyed 16 homes and damaged nearly 100. In 2021 the Oak Park Fire Safe Council was founded as a non-profit organization operating as an activity committee under the Oak Park Community Foundation. The Oak Park 2023 Draft CWPP outlines priorities, completed projects, and future projects for the community with an emphasis on home hardening education for residents and performing various fuel modification projects.

## RANCHO VENTURA CONSERVATION TRUST

Rancho Ventura Conservation Trust is a non-profit 501(c)(3) entity dedicated to permanently conserving the working landscapes located in the foothills above the City of Ventura. The

<sup>79</sup> Piru. 2022. Community Wildfire Protection Plan.

<sup>80</sup> Piru. 2022. Community Wildfire Protection Plan.

<sup>81</sup> Oak Park. 2023 Community Wildfire Protection Plan.

mission of Rancho Ventura Conservation Trust is to protect the natural diversity, cultural resources, scenic open space, and agricultural vitality of Ventura County ranch and coastal areas. The 1,612 acres entrusted to Rancho Ventura are some of the last remaining undeveloped, coastal view land of its size in Ventura County. Rancho Ventura is on its way to eventually conserving more than 4,000 acres of open space which benefits critical habitat, wildlife, rangeland preservation, and provides public access through its programs and projects. Rancho Ventura includes pastureland as well as 90 acres of avocado orchards, citrus trees, and other seasonal row crops such as pumpkins and beehives that produce honey.

Fire protection for Rancho Ventura is provided by the six fire stations in the City of Ventura as well as the resources of the Ventura County Fire Department. Rancho Ventura Conservation Trust's CWPP outlines priorities, completed projects, and future projects supporting the main objective of implementing fuel modification projects.

## VENTURA LAND TRUST

Ventura Land Trust is a 501(c)(3) non-profit organization whose mission is to permanently protect the land, water, wildlife, and scenic beauty of the Ventura region for current and future generations. Ventura Land Trust carries out its mission through the acquisition and stewardship of open space throughout Ventura County. Currently Ventura Land Trust owns approximately 3,800 acres throughout the County. Ventura Land Trust's interest area includes all parts of the County that are not included in other conservation organization's interest areas. For Ventura Land Trust, two properties make up the bulk of their land holdings. Harmon Canyon Preserve, located in East Ventura, is composed of 2,123 acres of coastal sage scrub habitat, with occasional pockets of Oak Woodland. Mariano Rancho, located directly North of Downtown Ventura, is largely composed of coastal sage scrub with some areas of type converted grassland. Both properties are characterized by undeveloped open space. Steep peaks, rugged valleys, and scenic overlooks abound. Both properties are steep, making access difficult. Given the Fire history of the area, along with the development of oil and gas infrastructure, access roads have been developed across both properties. Historically, both properties consisted of coastal sage scrub habitat.<sup>82</sup>

Fire protection for Ventura Land Trust properties is provided by the six fire stations in the City of Ventura as well as the resources of the Ventura County Fire Department. Ventura Land Trust's draft CWPP outlines priorities, completed projects, and future projects with the main objective of implementing fuel modification projects.

---

<sup>82</sup> Ventura Land Trust. 2022. Community Wildfire Protection Plan.



## SECTION III: PRIORITY ACTIONS

---

Defining priority actions within a CWPP is an exercise in recognizing the needs of the community now and in the near future. CWPPs are designed as living documents to maintain the flexibility necessary to address a changing landscape and engaged residents. These priority actions will allow the VRFSC and other agencies to address distinct issues directly by seeking community support and grant funding. Action categories addressed within this plan include Community Engagement and Education, Structural Hardening, Defensible Space, Fuels Reduction, and Evacuation. Priority actions within these categories were ranked by members of a Technical Advisory Group made up of local fire professionals, Ventura Regional Fire Safe Council Board Members, Ventura County Fire Department, and the Ventura Resource Conservation District (see Table 1 Partners in Section A *Collaboration* for all collaboration partners). A complete list of action items considered can be found in Appendix D *Priority Actions Table*. Within each category, items included have been ranked in order of priority.

### A. COMMUNITY ENGAGEMENT AND EDUCATION

Community engagement and education are critical components of a comprehensive CWPP. Wildfire threat in Ventura County needs to be addressed by all residents. Targeted workshops, hands on training, and informational document sharing can engage the broader community to instill fire safe practices as the norm. Recent events have shown that wildfire can reach beyond traditional fire prone areas and affect all aspects of life. Through effective community engagement and education, a CWPP can help create a safer and more resilient community in the face of wildfire threat.

The following are the VRFSC community involvement and education priorities:

1. Raise awareness about the risks and impacts of wildfires.
2. Empower community members to take proactive measures to protect their homes and properties.
3. Build a strong network of support and resources for wildfire prevention and response efforts.

#### ONGOING PROJECTS

- [Ventura County Wildfire Collaborative](#): Led by the Ventura County Resource Conservation District, the Ventura County Wildfire Collaborative is an over 5-million-dollar effort, funded by CAL FIRE and CA Climate Investments, to work in partnership with the regional wildfire-centric organizations that form the VCWC. The Ventura County Wildfire Collaborative Coordinating Group is a group of wildfire personnel, land managers, resource agencies, community organizations, and public and private organizations organized for communication and collaboration when it comes to understanding, preventing, and recovering from devastating wildfires. The VCWC works to coordinate resources, advise local and state agencies, work with the community and secure funding to help prevent and recover from wildfire. VCWC project focus includes structural hardening, education, evacuation, and planning and research.

- [Fire Hazard Reduction Program](#): The VRFSC will work with the VCFD to promote public understanding and adherence to this program. The VRFSC will maintain a link on the VRFSC website and provide information at public tabling events about this nationally recognized program led by the VCFD. The VRFSC field staff will seek appropriate training to conduct site inspections for homeowner compliance with this program.
- [Ready, Set, Go!](#): The VRFSC will maintain a link to this program on the VRFSC website and promote community engagement. Information about this program will be made available at tabling events. This ongoing bilingual program is led by Ventura County Fire Department to help community members be Ready with preparedness understanding, be Set with situational awareness when fire threatens, and to Go, acting early when fire starts. This program aligns with the 2022 VCFD Unit Plan.
- [Firewise Communities](#): The VRFSC works with community and neighborhood groups to establish their areas as Firewise Designated Communities. Developed by the National Fire Prevention Association (NFPA), the Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The VRFSC can provide resources and guidance for this program in the county. Homeowner's insurance providers are offering discounts for homes in Firewise Communities. Information will be available on the VRFSC website and at in-person events.
- [VC Alert Emergency Notification System](#): The VRFSC will maintain a link to this program on the VRFSC website and promote community engagement. Information about this program will be available at tabling events. This program utilizes a state-of-the-art emergency notification system to deliver time-sensitive emergency alerts in English and Spanish to areas within Ventura County where there is a threat to health and safety. This program is led by Ventura County, requires users to register to receive notifications, and is free.
- [Wireless Emergency Alerts](#): The VRFSC will maintain a link to this program on the VRFSC website. Information about how this program works and why the public would expect to receive alerts may be available at tabling events. This ongoing program is led by the California Office of Emergency Services (Cal OES) to provide free emergency alerts via text message to the public.
- [Wildfire Preparedness Workshops](#): The VRFSC will host informational workshops for the public on subjects including home hardening, defensible space, and evacuation. Workshops will be provided online and in-person in different areas of Ventura County to reach a broad audience. Spanish language workshops will also be provided to serve our Spanish speaking community. These efforts align with the 2022 VCFD Unit Plan.
- [Homeowner's Insurance Information](#): The VRFSC will work with local homeowner's insurance providers to provide up to date information to the public on steps they can take to lower their rates by conducting home hardening and defensible space efforts. This information can be provided through the door-to-door notification program and through the wildfire speaker series events.
- [Develop CWPPs for communities in Ventura County](#): The VRFSC is working with nine communities within the county to develop their own CWPPs. The VRFSC has developed a template document that serves as the foundation for all local CWPPs which will help residents quickly and comfortably navigate through them. Links to all county CWPPs will be hosted on the VRFSC website. Further grant funding is being pursued to continue the development of these planning documents within Ventura County. This program aligns with the 2022 VCFD Unit Plan.

- [Priority population outreach](#): The VRFSC will develop informational materials in Spanish to reach underserved communities within the county. Efforts to host Spanish language wildfire preparedness workshops are ongoing. The VRFSC will work with the Ventura County Human Services Agency in an effort to reach every member of the community with vital wildfire preparedness information.
- Hosting booths at community events such as county fairs, block parties, farmer's markets, etc. The VRFSC will maintain an active presence at community events to provide information about the VRFSC and partner led programs to increase public safety and preparedness for wildfire events. The VRFSC will provide informational handouts for the public and provide email list sign-up sheet for the public to receive project and workshop information.
- [VC Emergency Website](#): The VRFSC will maintain a link to this program on the VRFSC website and promote community use. Information about the website and program will be available from the VRFSC at tabling events. This ongoing external program led by Ventura County Office of Emergency Services (VCOES) is the official Ventura County incident information source.
- [Virtual Wildfire Speaker Series](#): The VRFSC collaborates with the VCRCD to host free quarterly wildfire speaker series targeted to the community of Ventura. Topics range from prescribed grazing to home hardening, to defensible space. This is an opportunity for the public to engage with wildfire experts.
- Door to Door Notifications: The VRFSC and partner organizations develop language for door hangars for priority areas to promote Structural Hardening and free assessments in English and Spanish. This program is led by the VRFSC.

## FUTURE PROJECTS

- [Update Ready, Set, Go! with recently adopted Zone 0 guidance](#): The VRFSC will work with the VCFD to update the online Wildfire Action Plan guide with new Zone 0 guidance for defensible space and home hardening. The current version was produced in 2016. Graphics should be remade with updated guidance. This program is led by the VCFD. The VRFSC can seek grants or community support for this project.
- Door to Door Notifications: The VRFSC and partner organizations will continue to develop language for door hangars for priority areas. Additionally, topics may include information about homeowner's insurance related to Fire Hazard Severity Zones, home hardening, and defensible space. The VRFSC will seek grant funding to support graphic design, printing, and postage/delivery costs. This program will be led by the VRFSC.
- California Wildfire Summit: The 2024 Summit aims to combat devastating wildfires by bridging gaps, sparking meaningful collaborative conversations, and provoking innovation throughout the State between land managers, wildfire professionals, regulators, legislatures, and other community stakeholders. The VRFSC will work with the Ventura County Wildfire Collaborative to facilitate this meeting.
- Ventura County Planning Division Public Information Program (Landscaping Materials): A list of plants that can be used in a *fuel modification zone* that is within or *adjacent* to one of the following: (a) an *ESHA* or a *buffer zone*, or (b) the Santa Monica Mountains (M) overlay zone. The plant list will include fire-resistant, drought-tolerant *native trees* and landscaping. This information will be made available through the Planning Division website.
- Ventura County Planning Division Public Information Program (Brochures for Development in the Santa Monica Mountains): The Planning Division will prepare an informational brochure that summarizes the type and extent of biological resources in this area. The

brochure will include a summary of the County's permitting requirements for the removal of vegetation classified as *ESHA*. Also, it will include a description and illustrations that depict the County's fuel modification regulations in the *coastal zone* when fuel modification occurs in *ESHA* or a *buffer zone*.

- Ventura County Planning Division Public Information Program (Fuel Modification and ESHA in the Santa Monica Mountains): The Planning Division will prepare an informational brochure for project applicants that compares fire protection effectiveness and the long-term economic and environmental trade-offs between using fire safe site *development* techniques and building design measures versus expanding the 100-foot *mandatory fuel modification zone* in *ESHA* to larger widths. This program would be dependent upon available funding or grant opportunities.

## **B. STRUCTURAL HARDENING**

Structural hardening is a critical component of mitigating the impact of wildfires on buildings and structures. This includes measures such as using fire-resistant building materials, installing vents that prevent embers from entering buildings, and designing structures with features that can resist the effects of high heat and flames. Structural hardening helps residents reduce the risk of property damage and loss of life during a wildfire. Structural hardening can also help reduce the risk of fire spreading from one structure to another, limiting the overall impact of wildfires on communities.

The following are the VRFSC structural hardening priorities:

1. Educate the community on why structural hardening is important and the resources available.
2. Provide free structural hardening assessments.
3. Provide direct funding for structural hardening projects.
4. Track progress of structural hardening in the county.

### ONGOING PROJECTS

- [Structural Hardening Assessments \(VCFD Wildfire Property Assessments\)](#): Work with VCFD to develop trained VRFSC staff to conduct these assessments as an alternative to VCFD staff. VRFSC staff will conduct public workshops to better inform the community on the purpose and standards to be met in these assessments.
- [Home Hardening Resiliency Program](#): VRFSC staff offers free home inspections for residents to inform and guide the process of home hardening. Residents can sign up for this program through the VRFSC website. Reports and recommendations will be provided to the homeowner at no cost and their information will not be shared with any other agency without their written consent.
- [Promote VCFD Standard and Guidelines](#): The VRFSC will maintain links on the VRFSC website to direct interested community members toward the VCFD Guidelines and Standards including but not limited to 416-Landscape and Fuel Modification Zone Plans, 418-Defensible Space, 515-Defensible Space and Fuel Modification Zones, 517-Application of Chips and Mulch in Defensible Space. Clear public understanding of these published rule sets should be readily available through the VRFSC.
- [Ventura County Provisions for Construction in Fire Zones](#): The county has adopted new Ventura County Building Code provisions for construction in fire zones. This applies to new buildings proposed to be located near adjacent large slopes, and to existing buildings

constructed prior to 2008. These provisions are intended to reduce the hazard of flames spreading to homes or other buildings from brush fires on large adjacent slopes.

- [Resident Grant Program Pilot](#): This program offered by VRFSC provides qualifying residents with home hardening retrofits at no cost to the homeowner. Currently, funding is limited to low-income seniors and Thomas Fire victims. This program can be tailored to merge with the Home Hardening Resiliency Program to implement recommended actions.
- [Home Ignition Zone Evaluation Program](#): Santa Monica Mountains Resource Conservation District (SMMRCD) provides evaluations by trained volunteers and a summary of recommendations will be provided along with additional resources and materials at the end of the evaluation. This program covers part of Ventura County under SMMRCD's coverage area.

## FUTURE PROJECTS

- **Cost-share Home Hardening Program**: The VRFSC will seek grant funding to provide cost sharing to qualifying residents for the implementation of home hardening recommendations. This is an alternative program to the Resident Grant Pilot Program that will allow an extension of funds to more residents throughout Ventura County.
- **Resident Grant Program Pilot**: The VRFSC will continue to seek grant funding to provide qualifying residents with home hardening retrofits. This program can be tailored to merge with the Home Hardening Resiliency Program to implement recommended actions.
- **Standardized Data Collection for Home Hardening**: This internal data collection process will allow the VRFSC to track homes that have received assessments, are undergoing retrofits, or conducting hardening through cost share or grant programs. The VRFSC will use this information to target specific areas of the community not receiving structural hardening assistance.
- **List of Vetted Local Landscapers and Contractors**: The VRFSC will create and maintain a list of landscaping and building contractors who have shown their understanding of and interest in using fire safe landscaping and construction in accordance with VCFD Standards and Guidelines. This list will be accessible to the community on the VRFSC website.
- [Home Ignition Zone Training - Bell Canyon](#): The VRFSC will work with the Bell Canyon Fire Safe Council, Wildfire Collective, and the VCFD to conduct trainings for Bell Canyon community members. This program will empower residents to conduct their own home hardening projects and understand the wildfire hazards around their homes. This program aligns with the 2022 VCFD Unit Plan.

## C. DEFENSIBLE SPACE

By creating defensible space between homes, other structures, and the surrounding vegetation, communities can significantly reduce the risk of property damage and loss of life during a wildfire. Defensible space includes measures such as clearing dead vegetation, trimming trees, and removing flammable materials from around homes and other structures. This can help prevent the spread of fire from the surrounding vegetation to buildings, and reduce the intensity of the fire, making it easier for firefighters to contain.

The following are the VRFSC defensible space priorities:

1. Assist residents with the palm tree maintenance and disposal of vegetative debris.
2. Provide defensible space inspections for residents.
3. Create defensible space on public property.



## ONGOING PROJECTS

- [Curbside Community Chipper Events](#): The VRFSC, other local Fire Safe Councils, and local fire departments hold community chipper days to assist residents with disposal of large quantities of vegetative debris. Removing this hurdle for the public can incentivize proactive fuel reduction for whole neighborhoods. The VRFSC and other entities will seek grant and community funding to continue to offer this program in areas of need throughout Ventura County. This program can be coupled with ongoing efforts by the VCFD as represented in the 2022 VCFD Unit Plan.
- **Palm Tree Maintenance and Removal**: Palm trees and their dead fronds are a major wildfire hazard in Ventura County. The VRFSC will continue to seek grants and community funds to contract the removal and maintenance of hazard palms for qualifying residents.

## FUTURE PROJECTS

- [VCFD Fuel Hazard Reduction Program \(FHRP\) Road Clearance](#): The VRFSC will seek grant funding to plan, permit, and conduct roadside clearance projects for qualifying residents to meet the VCFD FHRP requirements. This program would work with VCFD FHRP inspection teams to determine necessary work. This program would align with the 2022 VCFD Unit Plan.
- [Develop Vegetation Management Program for Qualifying Residents](#): The VRFSC will seek grant funding to develop a program providing defensible space vegetation management for qualifying elderly, disabled, and low-income residents. This program would align with the Ventura County Multi-Jurisdictional Hazard Mitigation Plan OA19.
- [AB-38 Property Inspections](#): This law requires sellers in High and Very High Fire Hazard Severity Zones to provide proof that a property is in compliance with defensible space requirements. The VRFSC will seek funding through grants or partnerships with realtor and insurance companies to receive appropriate staff training to conduct these inspections. The VRFSC will maintain up to date information on AB-38 requirements on the VRFSC website and have information available at in-person events.
- **Barranca Fuel Reduction Adjacent to Housing**: The VRFSC will seek grant funding to plan, permit, and contract these fuel reduction projects within the 100-foot defensible space zone near built infrastructure. VRFSC will partner with city and county fire departments to prioritize treatment targets.
- **Oak Restoration for Windbreaks**: The VRFSC will seek grant and community funding for planning, installation, and maintenance of native oaks in strategic locations throughout Ventura County to act as windbreaks. Once established, native oaks provide vital ecosystem services and can slow the spread of wildfire.



## D. FUELS REDUCTION

Fuels reduction projects aim to reduce the amount of flammable vegetation and other fuels that could contribute to the spread and intensity of a wildfire. Fuels reduction projects can involve thinning and removing trees, reducing understory vegetation, clearing debris from forest floors, and reducing the possibility of ignitions through roadside treatments. Fuels reduction projects can also help protect natural resources, improve overall forest health, and build fire resiliency back into Ventura's native ecosystems.

The following are the VRFSC fuel reduction priorities:

1. Continue to partner with local agencies and groups to conduct fuels reduction projects throughout the county.
2. Seek grant funding to contract fuels reduction priority projects.
3. Provide education about fuel reduction treatment types.

### ONGOING PROJECTS

- [FlameMapper Priority Treatment Areas](#): The VRFSC contracted with FlameMapper LLC to develop priority fuels reduction treatment sites along evacuation corridors in strategic locations throughout the county. The VRFSC will seek grant funding to contract fuels reduction priority projects based on FlameMapper's Data.
- [Partner with Team Rubicon in Fillmore](#): The VRFSC and Team Rubicon have partnered in the past to conduct understory fuels reduction in eucalyptus groves and roadside clearance in the Fillmore area. The VRFSC will continue to seek grants and community funding to support expansion of this project work.
- [Partner with the Ventura County Prescribed Burn Association \(VCPBA\)](#): The VRFSC will partner with the VCPBA and VCFD to provide training, tools, and resources for community members interested in learning how to use prescribed fire as a resource management tool.
- [Ojai Community Defense Zone \(Ojai Last Defense\)](#): The VRFSC will work with the VCFD, Los Padres National Forest, and the Ojai Valley Fire Safe Council to restore and expand an existing fuel break system to increase defensible space within the forest and the WUI of Ojai, Meiners Oaks, and Upper Ojai Valley. The VRFSC will support this project through public outreach and community engagement with this project and the ongoing maintenance of the site.

### FUTURE PROJECTS

- [Caltrans Roadside Fuel Reduction](#): The VRFSC will work with Caltrans planning staff to conduct hazard fuel reduction treatments and research the use of pre-fire retardants along highway corridors. The VRFSC will seek grant funding and build partnerships with Caltrans planning staff to support expansion of this work.
- [List of Treatment Methods](#): The VRFSC will develop a document and section of the website to explain common hazard fuel reduction treatment methodology and tools. This resource will serve to inform the public about alternative options available, promote ecologically sound implementation, and can guide them to vetted and trusted contracting options.
- [Roadside Fuel Reduction Annual Treatments](#): The VRFSC will work with VCFD pre-fire staff and the FlameMapper priority area dataset to develop annual targets for mileage of roadside treatments. The VRFSC will seek grant funding to plan, permit, and conduct these treatments. Production of a project backlog will inform annual grant applications and result in

more miles treated on a repeat basis. This project will support the 2022 VCFD Unit Plan goals for roadside treatments and fire roads maintenance.

- [Reducing Wildfire Risk in Piru](#): The VRFSC will work with the VCFD to plan, permit, and conduct this fuels reduction project in the priority community of Piru. This project aligns with the 2022 VCFD Unit Plan.
- [Upper Ojai Wildfire Protection Zone](#): The VRFSC will work with the Ojai Fire Safe Council and VCFD to implement this Vegetation Management Program (VMP) project. The VRFSC will provide support through public outreach and community engagement with this project and the ongoing maintenance of the site. This project aligns with the 2022 VCFD Unit Plan.
- [East Winds Vegetation Management Program \(VMP\) Project](#): The VRFSC will support this VCFD VMP project through public outreach and community engagement with this project and the ongoing maintenance of the site. This project aligns with the 2022 VCFD Unit Plan.

## **E. EVACUATION AND EMERGENCY RESPONSE**

During a wildfire, evacuation may be necessary to ensure the safety of community members and access to a site on these evacuation corridors is vital for emergency services. It is important that communities have a well-planned and well-communicated evacuation strategy in place to minimize confusion and maximize safety. This can involve identifying evacuation routes, establishing communication protocols, and providing resources for those who may need assistance with evacuation. By prioritizing evacuation projects as a key element of this CWPP, the VRFSC can help Ventura County communities ensure that they are prepared to respond quickly and effectively to wildfire threat, helping to reduce the risk of property damage and loss of life. Effective evacuation planning can also help improve community resilience in the face of wildfire and other disasters.

The following are the VRFSC evacuation and emergency response priorities:

1. Support education to prepare residents for evacuation and emergency response events.
2. Seek funding to support the development of evacuation plans for ranches.
3. Help educate the community about countywide temporary evacuation points.

### ONGOING PROJECTS

- [Ventura County Human Services Agency](#): The VRFSC will maintain a link to this program on the VRFSC website and promote it at in-person events. This registration program is led by the Ventura County Human Services Agency to inform first responders of residents in need of special assistance in an evacuation event.
- [Animal Evacuation Assistance](#): The VRFSC will maintain a link to this program on the VRFSC website and provide information at tabling events. This program led by the Animal Services Department as directed by the Transportation Emergency Preparedness Plan, supports efforts during community evacuations to evacuate animals as needed.

### FUTURE PROJECTS

- Develop Countywide Temporary Evacuation Points (TEPs): The VRFSC will work with VC OES and VCFD to hold community information sessions to introduce the public to the emergency services personnel in place to assist and the resources available. The VRFSC, OES, and VCFD will also work together to determine necessary, effective, and appropriate locations for TEPs.

- [Citizen Emergency Response Teams \(CERT\)](#): The VRFSC will promote the CERT program by maintaining a link on the VRFSC website and providing information at tabling events. Citizen involvement is empowering and can result in more effective emergency response when the public has a better understanding of processes and how they can help.
- [CAL OES Disaster Services Volunteer Program](#): This program is run by the California Governor's Office of Emergency Services (Cal OES) that provides an organized and coordinated approach to volunteerism during disasters in California. The program is designed to train and coordinate volunteers to assist with disaster response and recovery efforts throughout the state. The VRFSC will promote community involvement in this program by providing a link on the VRFSC website and providing information at tabling events.
- Vulnerability and Evacuation Assessment: The main objective of this project is to create a regional evacuation plan that develops various strategies for a range of potential wildfire scenarios that could impact Ojai Valley now and in the future. The ultimate goal is to expand the framework countywide. The VRFSC will work with the Ojai Valley Fire Safe Council to develop this assessment and transition the results to serve countywide.
- Vulnerability Mapping: The goal is to comprehensively understand communities' wildfire hazard, risk, vulnerability, and coping capacities through fine scale mapping efforts, facilitating more locally relevant, sustainable, and holistic wildfire risk mitigation strategies that work for the "whole" community and are locally driven and locally focused.

## SECTION IV: SIGNATURES

---

This plan must be approved by the following key parties: the local Fire Safe Council president, the chief(s) of the primary responding fire agency, and chair of the Ventura County Board of Supervisors. This section includes these signoffs.

The Community Wildfire Protection Plan as developed for Ventura County:

- Was collaboratively developed and meets the intent of the Healthy Forest Restoration Act (HFRA) in emphasizing the need for agencies to work collaboratively with communities in developing hazardous fuel reduction projects and placing priority on treatment areas identified by communities themselves in a CWPP. Interested parties and federal land management agencies in the vicinity of this CWPP have been consulted.
- Recommends measures to reduce ignitability of structures throughout the area addressed by the plan.
- Is intended for use as a planning and assessment tool only, utilizing a compilation of community issues/goals and projected fire mitigation strategies. The CWPP is not to be construed as indicative of project “activity” as defined under the “Community Guide to the California Environmental Quality Act, Chapter Three, Projects Subject to CEQA.” Per the Community Guide, Section 3.1.1, “CEQA only applies to public agency decisions to approve, or actions to carry out, a discretionary project.” Any actual project activities meeting this definition of project activity and undertaken by the CWPP participants or agencies listed shall meet with local, state, and federal environmental compliance requirements.
- Assists and encourages compliance with current county and state fire code standards.



Matt LaVere, Chair of the Board  
Ventura County Board of Supervisors

July 12, 2023

Date



Dustin Gardner, Fire Chief  
Ventura County Fire Department

July 11, 2023

Date

This CWPP was reviewed and recommended for approval by the Ventura County Community Wildfire Protection Plan Review Committee as demonstrated by the signature below.



Andrew Ortega, Board President  
Ventura Regional Fire Safe Council

July 11, 2023

Date

The CAL FIRE Unit Chief has final signing authority on CWPPs in Ventura County. The signature below attests that the standards listed in the section above and the content of this CWPP are proposed to be met and mutually accepted.



John Owens, San Luis Obispo Unit Chief  
California Department of Forestry and Fire Protection

July 21, 2023

Date

## SECTION V: APPENDICES

---



**APPENDIX A - VENTURA COUNTY DEFENSIBLE SPACE ORDINANCE 2022**

## SECTION 4907 DEFENSIBLE SPACE

**4907.1 General.** Vegetation and fuels shall be managed to reduce the severity of potential exterior wildfire exposure to buildings and to reduce the risk of fire spreading to buildings as required by applicable laws and regulations.

**4907.2 Application.** Buildings and structures located in the following areas shall maintain the required defensible space:

1. All unincorporated lands designated by the State Board of Forestry and Fire Protection as a State Responsibility Area (SRA).
2. Land designated as a Very High Fire Hazard Severity Zone by the Director.
3. Land designated in ordinance by local agencies as a Very High Fire Hazard Severity Zone pursuant to Government Code Section 51179.
4. Land designated as a WUI area by the fire code official.

**4907.3 Requirements.** Vegetation and fuels around all buildings and structures shall be maintained and spaced at all times in accordance with the following laws and regulations. Should a conflict of any requirements occur, the most restrictive requirement shall prevail:

1. Public Resources Code, Section 4291.
2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Article 3, Section 1299.
3. California Government Code, Section 51182.
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07.
5. The requirements of Chapter 49, and the Defensible Space and Fuel Modification Standards as issued and approved by the Fire Code Official.

**4907.3.1 Retroactivity.** There is no “grandfathering” or exemptions for existing Defensible Space zones, unless specifically identified within the State Law or this Code. When required by the Fire Code Official, or State Law, existing Defensible Space/Fuel modification zones (FMZs) shall require retrofitting, including thinning and or removal of plants, trees, and vegetation, to meet this Code, the Defensible Space and Fuel Modification Standards as issued by the fire code official, or State Law. Upon notification by the Fire code official, and when approved, work to bring an existing Defensible Space and FMZ into compliance with this Code, and the Defensible Space and Fuel Modification Standards, may be done over a two-four (2-4) year period as determined by the fire code official. A compliance plan prepared by the property owner may be requested for review and approval by the fire code official.

**4907.4 Responsibility and costs.** The responsibility to provide and maintain any required defensible space, including any associated costs, shall be that of the actual owner of the of land, or portion of land, within the required 100-foot clearance zone except as indicated in section 4907.4.1 or 4907.4.2.

**4907.4.1 County of Ventura road right-of-way.** The responsibility and any associated costs for the clearing and providing the required Defensible Space or roadside clearance upon any County of Ventura Road right-a-way (ROW), in the area between the back of curb, or back edge of any improved shoulder (graded or paved), shall be that of the actual owner of the of land, or portion of land, abutting the ROW within the required 100-foot clearance zone from any building., or roadside clearance area. In cases where no road has been

installed, the abutting property owners shall be responsible to the centerline of the ROW. Reference: Ventura County Ordinance Code Division 12, Chapter 7, 12701- 12703 (VC Ordinance 4355)

**4907.4.2 Private road parcels.** The responsibility and any associated costs for the clearing and providing the required defensible space upon any private road parcel, where no ownership can be established, shall be that of the actual owner of the of land, or portion of land, abutting the private road parcel and to the centerline of the private road parcel.

**4907.5 Clearance of brush, vegetative growth, and Combustible Material from Parcels.** All Parcels declared a Public Nuisance shall be cleared entirely of Combustible Material. If the Fire Code Official determines this impractical, the provisions of Section 4907.6 may be used.

**4907.6 Clearance of fuels or vegetative growth from structures.**

**4907.6.1 Structures.** Any Person owning, leasing, controlling, operating or maintaining any Building in, upon, or adjoining any WUI Area, and any Person owning, leasing or controlling any land adjacent to such Buildings, shall at all times maintain around and adjacent to such Building, an effective firebreak made by removing and clearing away, all Combustible Material on their property for a distance not less than 100 feet from all portions of the Building. Distances may be increased by the Fire Code Official because of a site-specific analysis based on local conditions and when required, based on a Fire Protection Plan.

This section shall not apply to single specimens or stands of protected species of trees, Ornamental Landscape or similar plants used in landscaping and ground covers, that are well-pruned, maintained, and spaced, and do not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation or to interrupt the advance of embers toward a structure, and are in accordance with the requirements of Defensible Space and Fuel Modification Standards as issued and approved by the Fire Code Official.

**4907.6.2 Timing for new Buildings and addition to existing Buildings.** The provisions of Section 4907.6 shall be completed prior to vertical construction of any new building or addition to an existing building.

**4907.6.3 Detached accessory Buildings.** Detached accessory Buildings are not subject to the clearance requirements of Section 4907.6 when all of the following apply:

1. The Building Area does not exceed 120 square feet when a building permit is not required by the local Building Department or 250 square feet when open on all sides.
2. The Building is set back a minimum of 50 feet from any other Building subject to the clearance requirements of 4907.6.1.
3. The Building does not contain any hazardous items or material/process requiring a fire code permit.
4. The area within 10 feet of the building has been cleared to bare mineral earth and there is no combustible vegetation within 20 feet of the building.

**4907.6.4 Photovoltaic systems.** The clearance requirements around free standing photovoltaic systems and equipment shall comply with the following:

1. A minimum 10-foot clearance for clusters of panels not exceeding 1,500 sq ft of combined panel area.
2. A minimum 30-foot clearance for clusters of panels greater than 1,500 sq ft of combined panel area.

3. Clusters shall be separated by a minimum of 20 feet.
4. Panels and clusters shall not be located within 30 feet of any Building subject to clearance requirements of Section 4906 unless the clearance requirements of Section 4906 are provided as measured from the perimeter of the panel or cluster.

**4907.6.5 Prefabricated sea cargo/metal storage containers used for storage.** The clearance requirements of 4907.6.1 may be reduced to a minimum of 30 feet when all of the following apply:

1. The container does not exceed 320 square feet.
2. There are no alterations/modifications to the container, including, but not limited to doors, windows, ventilation openings, etc.
3. There are no utilities connected to or serving the container.
4. The container is set back a minimum of 30 feet from any Building or 6 feet from other containers.
5. The container does not contain any hazardous items or any material/process requiring a fire code permit.

**4907.7 Defensible space clearance zones and requirements.** The required 100-foot Defensible Space clearance is identified in three (3) distinct zones: Zone 0, 1 and 2. Additional clearance beyond the required 100-foot Defensible Space is identified as Zone 3.

**4907.7.1 Requirements.** Defensible space shall be in accordance with the requirements of the Defensible Space and Fuel Modification Standards as issued and approved by the Fire Code Official and the specific requirements for each zone listed in Section 4907.7.2 through 4907.7.5.

**4907.7.2 Zone 0 purpose and location.** Zone 0 reduces the likelihood of structure ignition by reducing the potential for direct ignition of the structure from flame contact, by embers that accumulate at the base of a wall, and/or indirect ignitions when embers ignite vegetation, vegetative debris or other combustible materials located close to the structure that result in either a radiant heat and/or a direct flame contact exposure to the structure. Zone 0 is the horizontal area within the first five feet around the structure, any outbuildings, and attached decks, and stairs. Zone 0 is measured from the edge of a structure, attached decks, patio covers, balconies, and floor projections above grade, Zone 0 also includes the area on the roof of a building, and underneath and on top of: attached decks, patio covers, balconies, and stair landings.

**Advisory Notice:** VCFPD has local Zone 0 requirements currently in effect for new buildings and additions to existing buildings. As required by State Law, Assembly Bill 3074 (Chaptered September 2020), new State regulations for Zone 0, currently under development by the State Board of Forestry and Fire Protection, are scheduled to take effect in early 2023 for all new buildings, and one (1) year thereafter, for all existing buildings. Any State regulation more restrictive than this ordinance or the requirements of Defensible Space and Fuel Modification Standards, as issued and approved by the Fire Code Official, will apply.

**4907.7.2.1 Decks.** Vegetation is prohibited underneath any deck. Other fuels underneath decks may be limited and shall not cause an ignition due to embers.

**4907.7.2.2 Mulch and wood chips.** Combustible mulch and wood chips are prohibited in Zone 0.

**4907.7.2.3 Firewood.** Firewood shall be removed from Zone 0.

**4907.7.2.4 Roofs.** Trees shall be trimmed to provide a minimum 3-foot clearance above any roof, patio cover, or other projection from the building. All roofs and gutters shall be kept free of leaves, needles, or other combustible vegetation.

**4907.7.2.5 Landscaped roofs.** Landscape roofs shall comply with Section 317, 4907.7.1, and 4907.7.2.

**4907.7.2.6 New trees.** New trees are not allowed in Zone 0.

**4907.7.2.7** Artificial or synthetic grass is prohibited within Zone 0.

**4907.7.3 Zone 1 purpose and location.** Zone 1 reduces the likelihood of fire burning directly to the structure. This is accomplished by modifying fuels and creating a discontinuity between planting groups that limits the pathways for fire to burn to the structure and reduces the potential for near-to-building ember generation and radiant heat exposures. An additional purpose of this zone is to provide a defensible area for fire personnel to stage and take direct action. Zone 1 is the area within 5-30 feet of structures and decks, with slopes not greater than 20 percent; 5-50 feet from buildings and decks, when slopes are greater than 20 percent.

**4907.7.4 Zone 2 purpose and location.** Zone 2 is designed to reduce the potential behavior of an oncoming fire in such a way as to drop an approaching fire from the crown of trees to the ground, reducing the flame heights, and the potential for ember generation and radiant heat exposure to structures. Additional benefits of the Zone 2 include facilitating direct defense actions and improving the function of Zones 0 and 1. Zone 2 is the area from the outer edge of Zone 1 to 100-feet from structures and decks.

**4907.7.4.1 Spacing.** Spacing of vegetation and trees at the outer edge of Zone 2 shall be based upon the height of the vegetation within Zone 2 or the adjacent area beyond the 100-foot zone, which ever provides for the greater spacing. This may require clearance outside the 100-foot zone or setting back vegetation and trees within Zone 2 away from the 100-foot line.

**4907.7.5 Zone 3 purpose and location.** Zone 3 is considered a thinning zone and is any FMZ greater than 100-feet from structures and decks. When provided, either by conditions of development, voluntary by the property owner, or required by the Fire Department, this zone is more of a progressive thinning zone to lessen spread of fire as it approaches the primary FMZ adjacent to structures. The amount of fuel reduction and removal should take into consideration the type and density of fuels, aspect, topography, weather patterns, and fire history.

**4907.7.6 General requirements for Zones 0, 1 and 2.**

**4907.7.6.1** All dead or dying grass; plants; shrubs; trees; branches; leaves; weeds; and tree needles, shall, be removed.

**4907.7.6.2 Mulch and wood chips within Zone 1 and Zone 2.** Use of combustible mulch and wood chips shall be in accordance with the requirements of Application of Mulch and Chips in Defensible Space Standards as issued and approved by the Fire Code Official.

**4907.7.6.3 Firewood piles.** Exposed firewood piles not exceeding 1,000 cubic feet within a WUI Area shall be located a minimum of 30 feet from any Building and/or

combustible vegetation. See Section 4911.10.4 for firewood piles exceeding 1,000 cubic feet.

**Exception:** Firewood piles completely covered in a fire-resistant material and located a minimum of 5 feet from any Building.

**4907.7.6.4 Clearance from chimney, stovepipe.** Any portion of a tree or shrub that extends within 10 feet horizontally or vertically of a chimney outlet or stovepipe outlet shall be removed.

**4907.7.6.5 Trees.** New trees shall be planted and maintained so that the tree's drip line at maturity is a minimum of 10-feet (3048 mm) from any combustible structure.

**4907.7.6.5.1. Tree spacing.** The horizontal distance between crowns of new trees and crowns of adjacent trees shall not be less than 20-feet in Zone 1 and not less than 10-feet (3048 mm) in Zone 2. Separation distance may be increased for slopes exceeding 20%. Required spacing is measure between tree canopies at maturity.

**4907.7.6.5.2. Ground clearance of trees.** Trees exceeding 6-feet in height shall be limbed up from the ground 6-feet or 1/3 the height of the tree, whichever is less. Exception: Fruit trees when approved.

**4907.7.6.5.3 Ground cover under tree canopy.** When approved ground cover and shrubs are located underneath trees, the vertical clearance to the lowest branch of the tree canopy shall not be less than three times the height of ground cover or shrub under or adjacent to the tree. The horizontal clearance shall be 3-feet from the trunk of the tree.

#### **4907.7.6.6 Continuous tree canopies.**

**4907.7.6.6.1 New Structures.** Continuous tree canopies are not allowed. Tree spacing shall be in accordance with the requirements of Defensible Space and Fuel Modification Standards as issued and approved by the Fire Code Official.

**4907.7.6.6.2 Existing Structures prior to April 19, 2019.** Continuous tree canopies may be allowed as determined by the Fire Code Official but will require the complete removal of any understory and smaller trees to meet requirements for a shaded fuel zone. Any remaining trees shall be limbed up a minimum 12 feet from the ground or 1/3 the tree height, whichever is less. The intent is to not allow a crown (canopy) fire to spread unchecked to a structure and to bring any crown fire down to the ground level prior to Zone 1.

**4907.7.6.7 Grasses.** Natural or annual grasses shall be mowed to a maximum height of 3-inch stubble with clippings removed.



## **APPENDIX B - FLAMEMAPPER ASSESSMENT**

# Ventura Regional Fire Safe Council

## Wildfire Analysis and Roadway Mitigation Prioritization

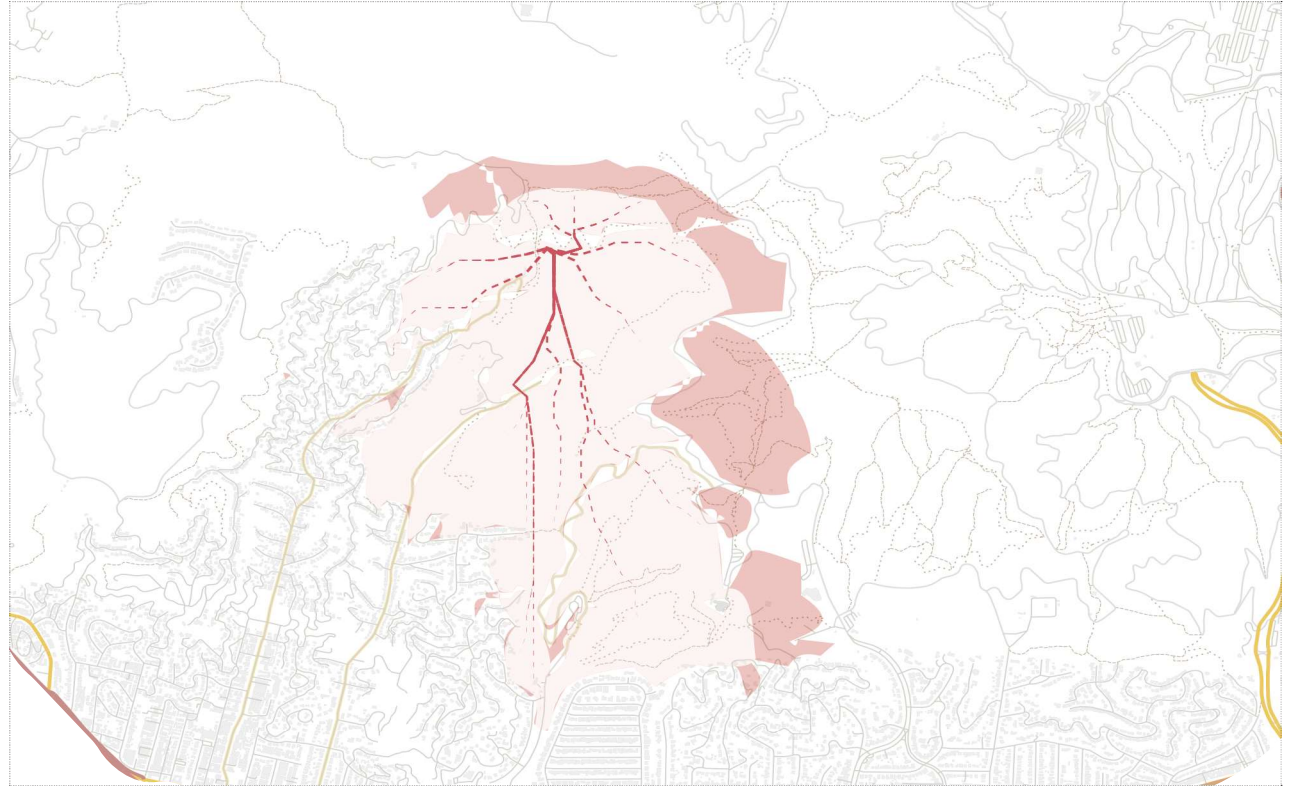
January 2023

# Wildfire Analysis and Roadway Mitigation Prioritization

## Mission

We reduce catastrophic wildfire outcomes for communities and partners by providing the data, tools, and know-how needed to make informed mitigation choices.

Through our products and services, we aim to lower the number of structures and lives lost to wildfires.



We serve communities in wildfire prone areas in support of mitigation projects as the first phase of emergency management. We use virtual fires to understand the movement of fire and fire intensity over a landscape. This allows for targeted mitigation for maximum impact at the lowest cost.

# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Understanding Vulnerability for Communication and Outreach

FlameMapper is dedicated to using the best available information to understand wildfire impacts in wildfire prone areas. For instance, the web-enabled map to the right uses machine learning (ML) to predict the relative loss and survivability probabilities for individual structures from a wildland fire event.

The red-blue colors, shows a statistical distribution of structure vulnerability within the communities of Ventura (shown at right), Fillmore, and Piru. Structure vulnerability is comprised of a set of factors, identified through statistical techniques from actual wildfire losses occurring within the State of California over the past decade. Model factors include structure-to-structure ignition probability, topographic conditions, and vegetation characteristic among others.

These the results of our models inform planning, communication, and outreach within a community, allowing for targeted and methodical resource use.

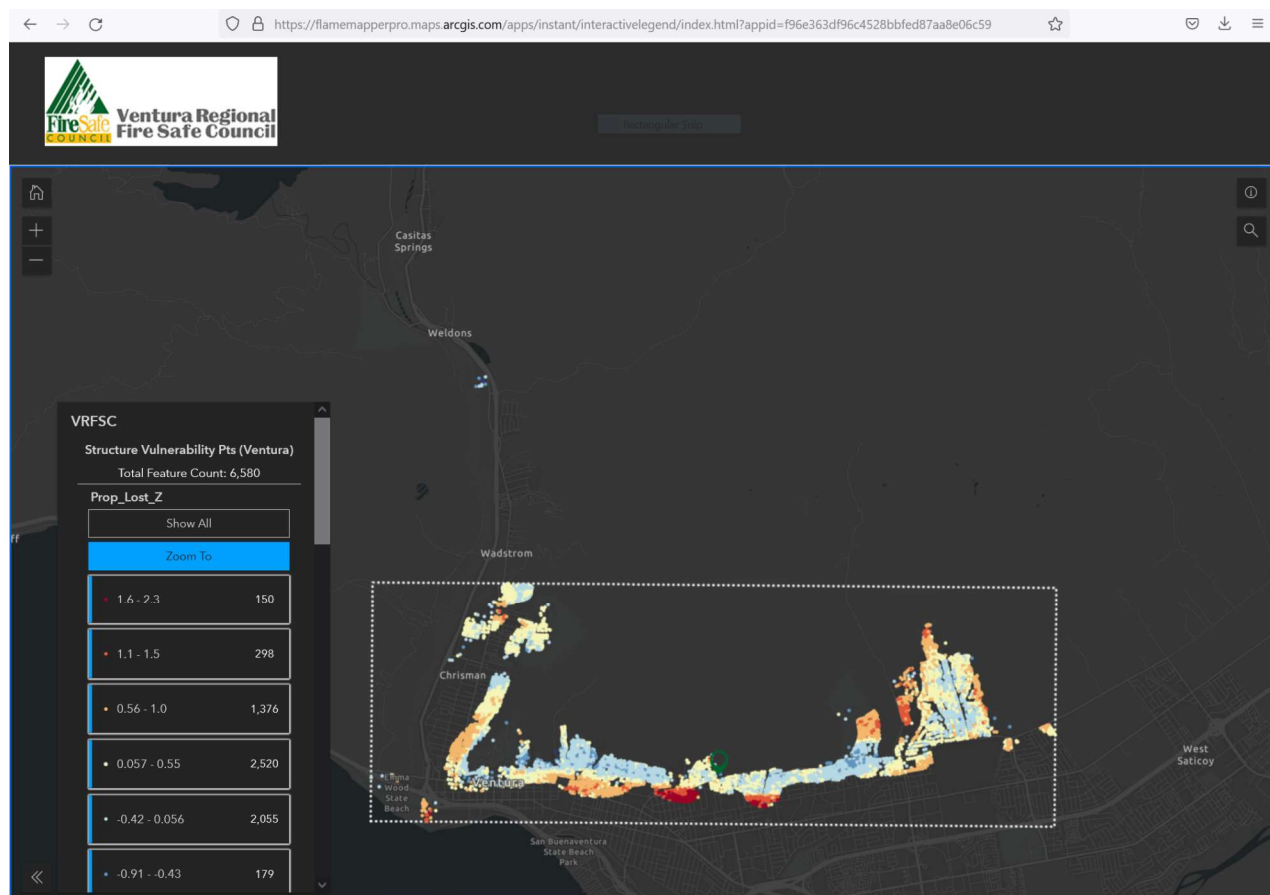
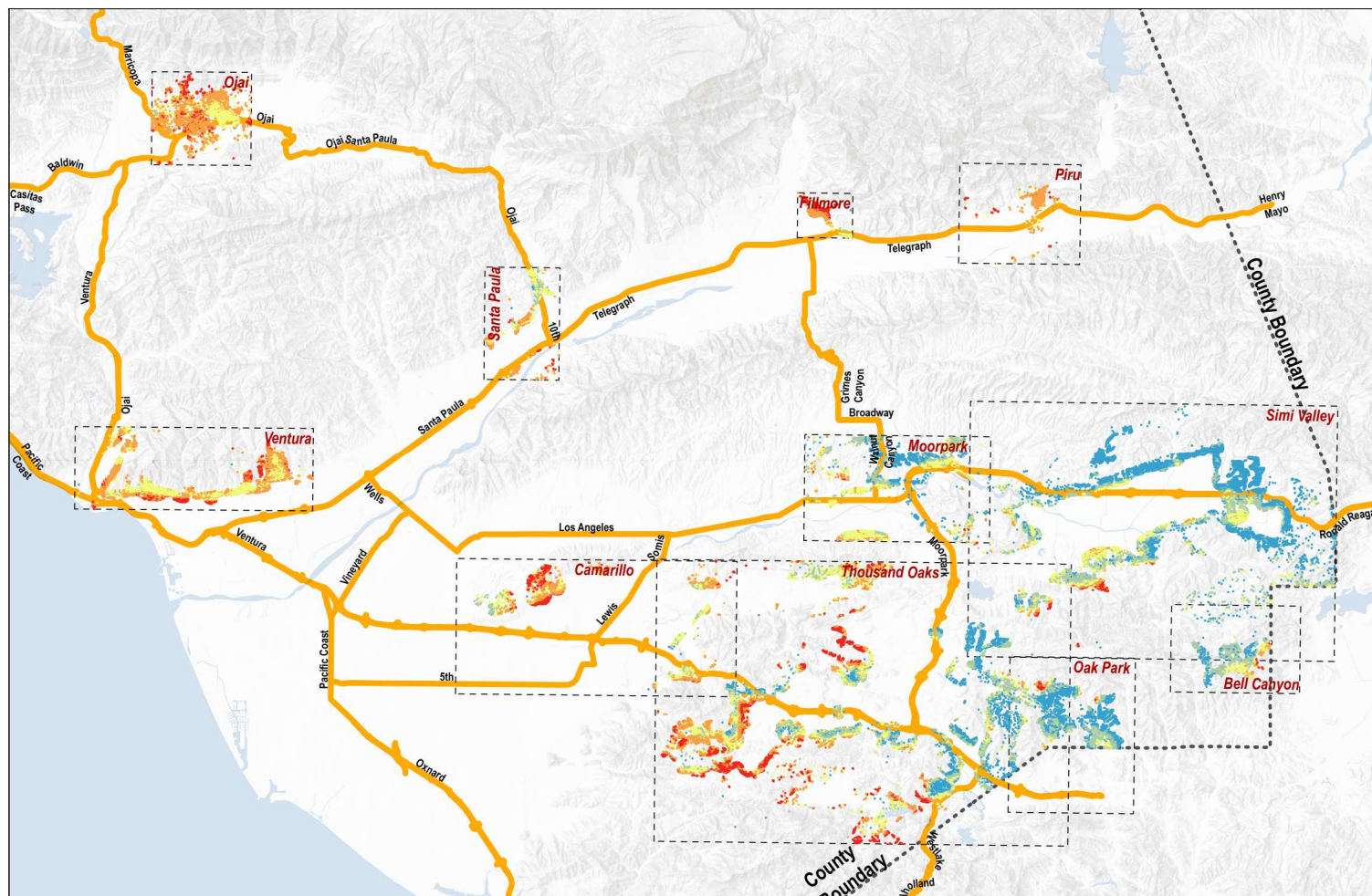


Image taken from [Web Map](#) delivered March 2022

# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Understanding Vulnerability for Communication and Outreach

Our analysis methods when applied to the entire study area allow for “global” understanding of priorities within Ventura County. Vulnerability analysis for structures that are within state designated wildfire hazard areas or are within 1,000 ft. of a historic fire perimeter.



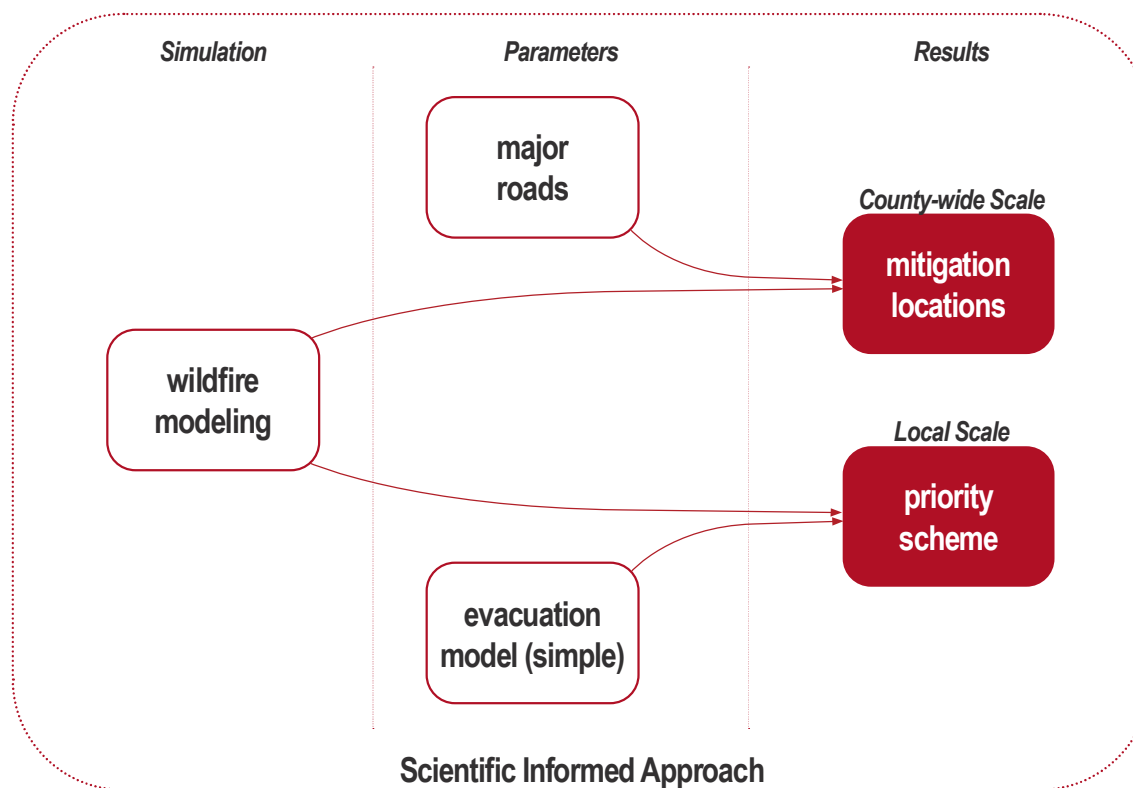
Relative Structure Vulnerability Across all Study Areas

# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Understanding Vulnerability for Communication and Outreach

Local government and local leaders understand the importance of focusing disaster planning around the safety of public evacuation routes. There is significant appeal in directing resources towards this issue as many communities identify with what occurred during the wildfire events in Paradise, California. This is also concurrent with a shift in wildfire response to focus on public evacuation prior to direct wildfire suppression.

Furthermore, there is recognition that projects of magnitude will require implementation over many years therefore, investments in resource planning, modeling, and communication will be critical in acquiring funds and public support for these efforts. Therefore, projects that successfully combine elements of wildfire modeling and evacuation flow to rapidly identify and prioritization locations for intervention will serve the public interest.



Method Diagram: Multi-scalar Mitigation Analysis



# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Understanding Vulnerability for Communication and Outreach

Local government and local leaders understand the importance of focusing disaster planning around the safety of public evacuation routes. There is significant appeal in directing resources towards this issue as many communities identify with what occurred during the wildfire events in Paradise, California. This is also concurrent with a shift in wildfire response to focus on public evacuation prior to direct wildfire suppression. Furthermore, there is recognition that projects of magnitude will require implementation over many years therefore, investments in resource planning, modeling, and communication will be critical in acquiring funds and public support for these efforts. Therefore, projects that successfully combine elements of wildfire modeling and evacuation flow to rapidly identify and prioritization locations for intervention will serve the public interest.

This problem of identification and prioritization of locations along evacuation routes within a community requires developing a series of representative models to understand what may occur during a major wildfire event. These models use simulation to characterize the conditions at a particular location which may present a potential risk to evacuation safety. Put another way, the goal is to find areas adjacent to roads that may have flame impingement. Flame impingement is a condition which could render a road physically or psychologically impassible, either presents a risk during an event.

FlameMapper defines a location of potential of flame impingement as:

Interstates, Highways	Flamelengths greater than four feet within 150 meters of a road centerline
Local Roads	Flamelengths greater than four feet within 50 meters of a road centerline

Four-foot flamelengths are used in the wildfire suppression community as a proxy cutoff for when heat and conditions are no longer safe for ground-based suppression response. Therefore, these models are calibrated to identify these locations with differing spatial proximities based on the type of roadway. The distances are conservative estimates of potential distances from the roadway, which could influence evacuation safety. These distances are partially influenced by the spatial resolution of the fuel model used in simulation and intended to reflect a conservative approach to identifying potential areas (as in it is better to overpredict than underpredict). The goal is to capture as many locations as possible to reveal specific potential vulnerabilities and potential patterns so that field verification, planning, and mitigation efforts may commence. It identifies the presence of absence of this potential condition based on standard vegetation fuel model simulation.

*This model does not identify the potential for a road to be blocked by falling debris, visual impairment from smoke, influence of specific roadway features that might impede safety such turns, bumps, intersections, road widths or any road qualities.*

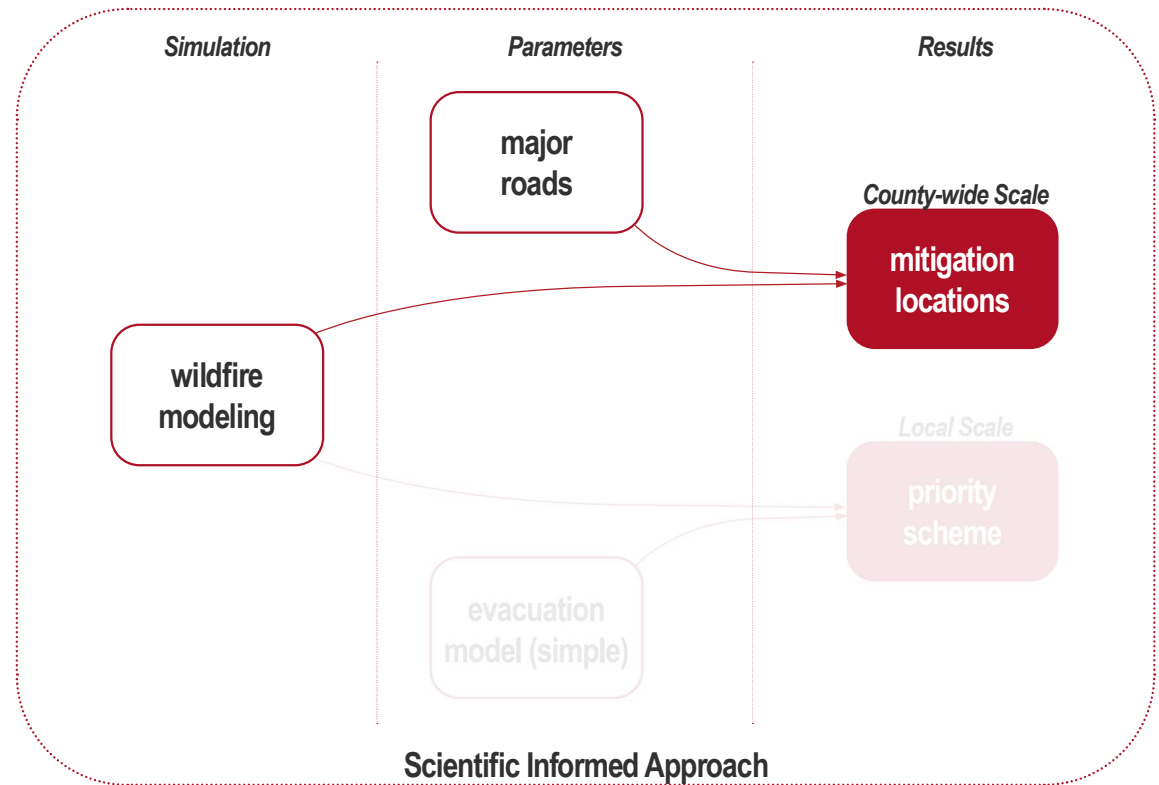
# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Multi-scale Analysis for Deeper Insights

FlameMapper evaluated the impact of modeled wildfire at two different scales. The first results will show the impact on the major roads within Ventura County (i.e. SR 1, SR 23, SR 33, SR 126, SR 150, US 101, and SR 118). The major roads will serve as evacuation routes for a percentage of citizens during a wildfire event.

A secondary analysis, which includes a prioritization method identifies potential evacuation “pinch-points” at a finer scale within hazard zones.

It is important to note that not all of the specific study areas contain major state roads.



County-wide Scale Mitigation Method

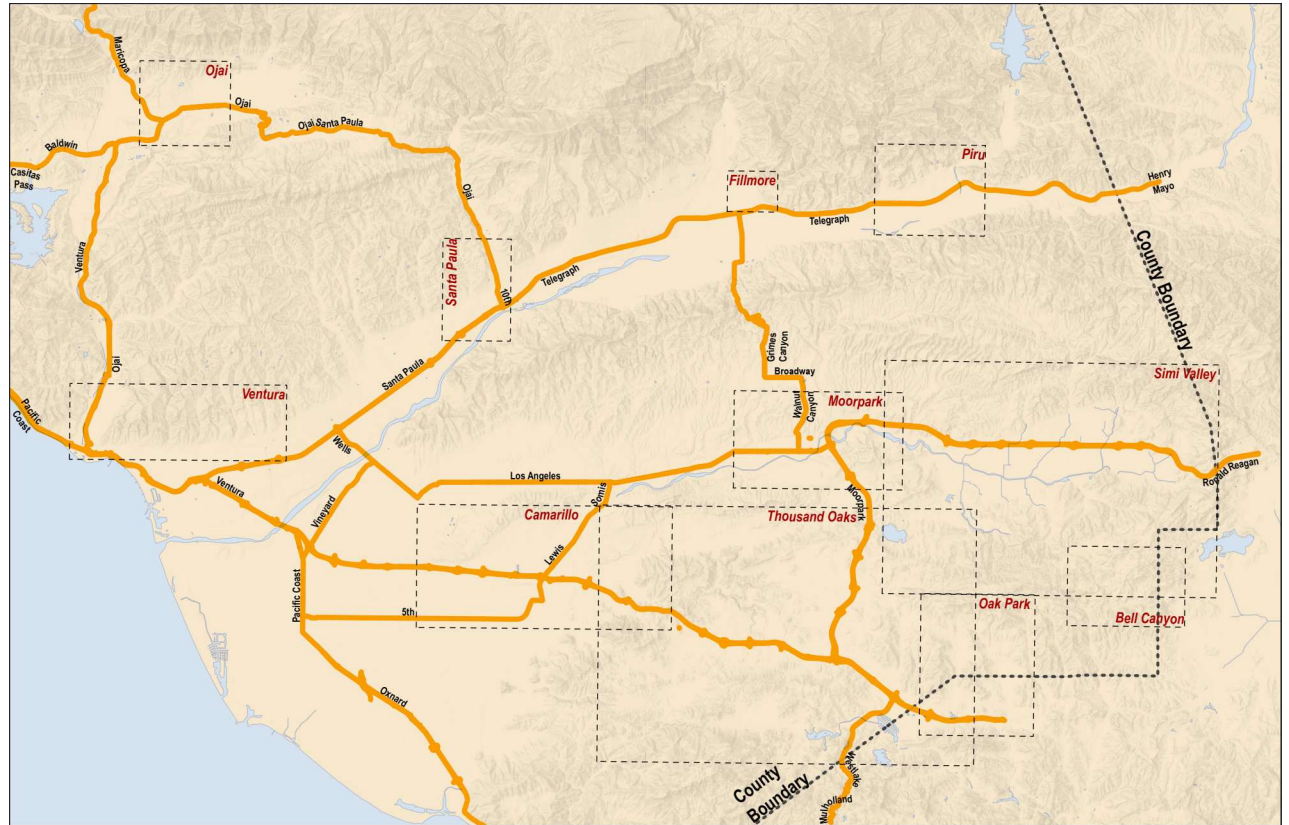
# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Multi-scale Analysis for Deeper Insights

FlameMapper evaluated the impact of modeled wildfire at two different scales. The first results will show the impact on the major roads within Ventura County (i.e. SR 1, SR 23, SR 33, SR 126, SR 150, US 101, and SR 118). The major roads will serve as evacuation routes for a percentage of citizens during a wildfire event.

A secondary analysis, which includes a prioritization method identifies potential evacuation “pinch-points” at a finer scale within hazard zones.

It is important to note that not all of the specific study areas contain major state roads.

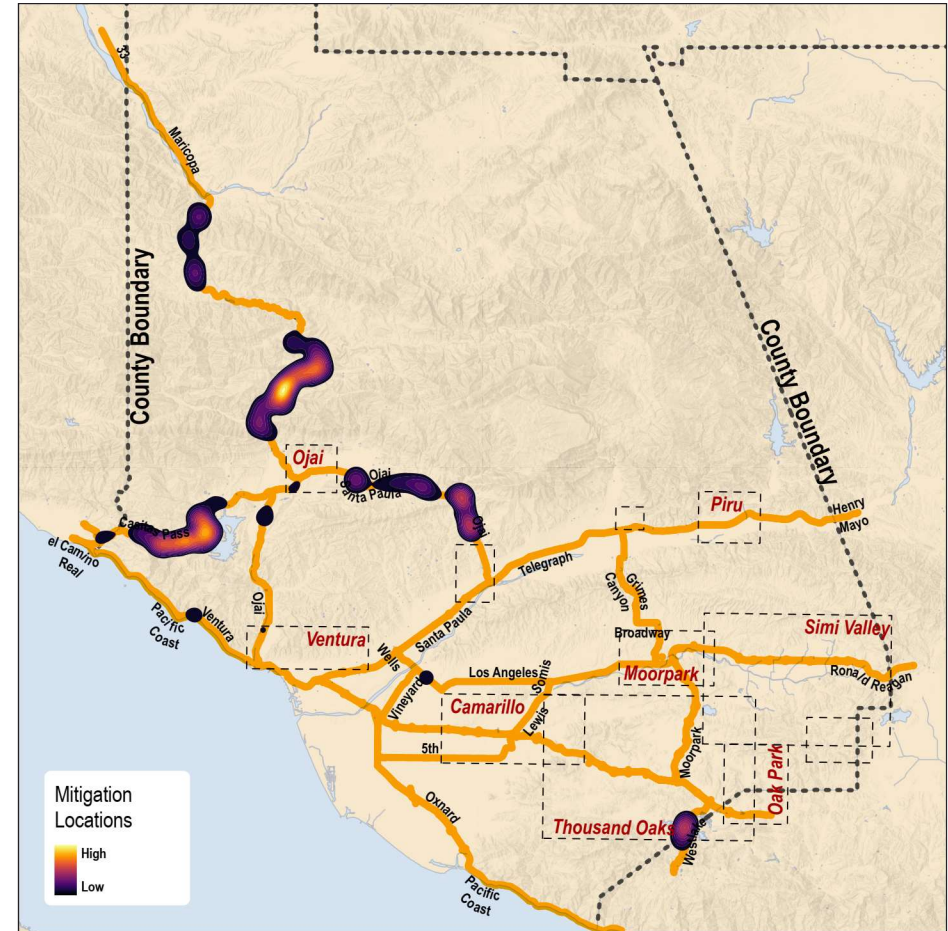


Major Roads Analyzed for Wildfire Mitigation Areas

# Wildfire Analysis and Roadway Mitigation Prioritization



Specific Overlapping Mitigation Locations



Density of Potential Mitigation Locations

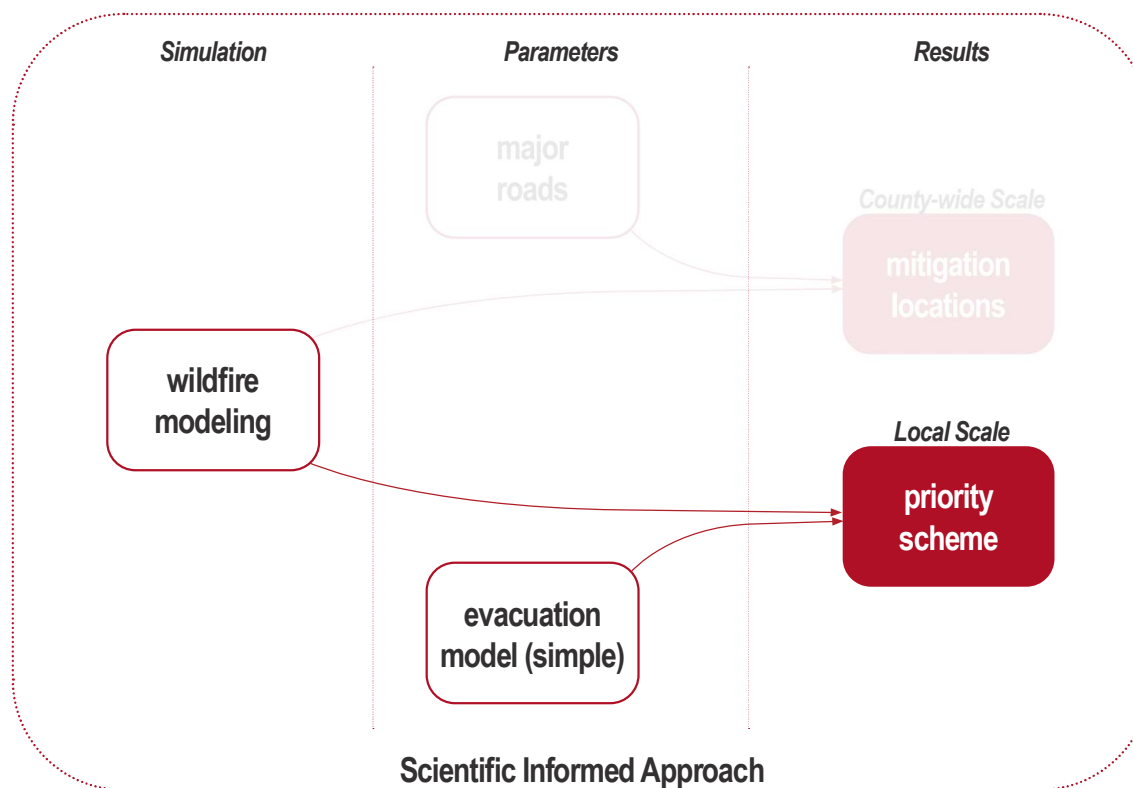
One observation when applying this method across the following roads: SR 1, SR 23, SR 33, SR 126, SR 150, US 101, and SR 118, is that few of the modeled high flamelength locations occur within the specific study areas. This analysis also demonstrates the importance of understanding evacuation on local roads.



# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Understanding Vulnerability for Communication and Outreach

Local government and local leaders understand the importance of focusing disaster planning around the safety of public evacuation routes. There is significant appeal in directing resources towards this issue as many communities identify with what occurred during the wildfire events in Paradise, California. This is also concurrent with a shift in wildfire response to focus on public evacuation prior to direct wildfire suppression. Furthermore, there is recognition that projects of magnitude will require implementation over many years therefore, investments in resource planning, modeling, and communication will be critical in acquiring funds and public support for these efforts. Therefore, projects that successfully combine elements of wildfire modeling and evacuation flow to rapidly identify and prioritization locations for intervention will serve the public interest.



Local Scale Mitigation Method

# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Understanding Vulnerability for Communication and Outreach

Local government and local leaders understand the importance of focusing disaster planning around the safety of public evacuation routes. There is significant appeal in directing resources towards this issue as many communities identify with what occurred during the wildfire events in Paradise, California. This is also concurrent with a shift in wildfire response to focus on public evacuation prior to direct wildfire suppression. Furthermore, there is recognition that projects of magnitude will require implementation over many years therefore, investments in resource planning, modeling, and communication will be critical in acquiring funds and public support for these efforts. Therefore, projects that successfully combine elements of wildfire modeling and evacuation flow to rapidly identify and prioritization locations for intervention will serve the public interest.

However, understanding the presence of absence of hazardous flamelengths is not sufficient in order to provide mitigation design recommendations. It is necessary to get a representation (snapshot) of how people may move along the roadways. Therefore, the model also attempts to define the potential total volume of cars, which may pass along a particular roadway. This initial assessment (absent a more formal traffic flow study, which takes both time and resources) provides a method to establish a roadway hierarchy, which may then inform the order of the interventions.

The basic assumption is that two cars will leave every structure within the defined area and evacuate outside the community. The movement of vehicles within an evacuation is more complicated, however, this methodology provides insights into the roadway hierarchy to inform the ranking of mitigation projects.

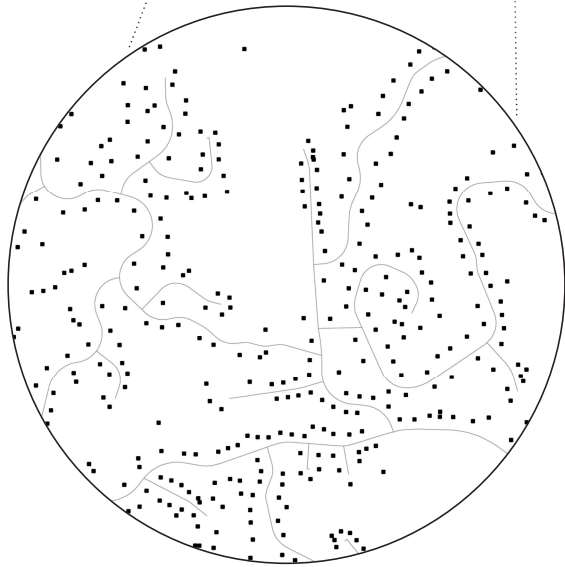
With the road hierarchy and impingement locations established, FlameMapper recommends ordering the locations based on the number people impacted. The locations are then ranked in order of community importance with one being the most important. This results in project locations that should start from the interior of the community outward, to serve the greatest number of people first. In instances where multiple locations are adjacent this represents a clustered opportunity and should be prioritized according to the lowest number in the group (i.e. if 4, 8, 10 are all next to one another the area be grouped as one project and should assume the fourth priority).

*The model does not account for road size, road quality, time bound dependencies, or dynamic flow conditions. The simplification will also underestimate certain multifamily structures and overestimate single occupancy households. If more specific occupancy is publicly available known would enhance the results however, this may not alter the hierarchy nor mitigation prioritization ranking in most areas due to multifamily housing being located in more urbanized settings and general egress requirements in the building code process.*

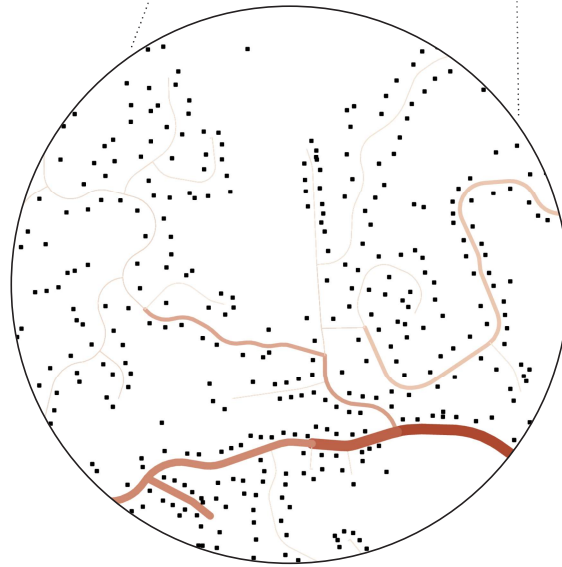
# Wildfire Analysis and Roadway Mitigation Prioritization



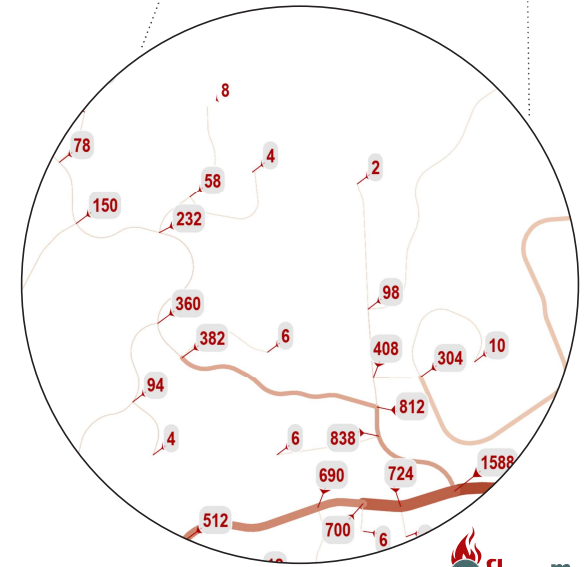
1. Identify Roads and Buildings.



2. Establish Evacuation Road Hierarchy based on potential egress options.



3. Potential Evacuation Count through intersections for road segment prioritization

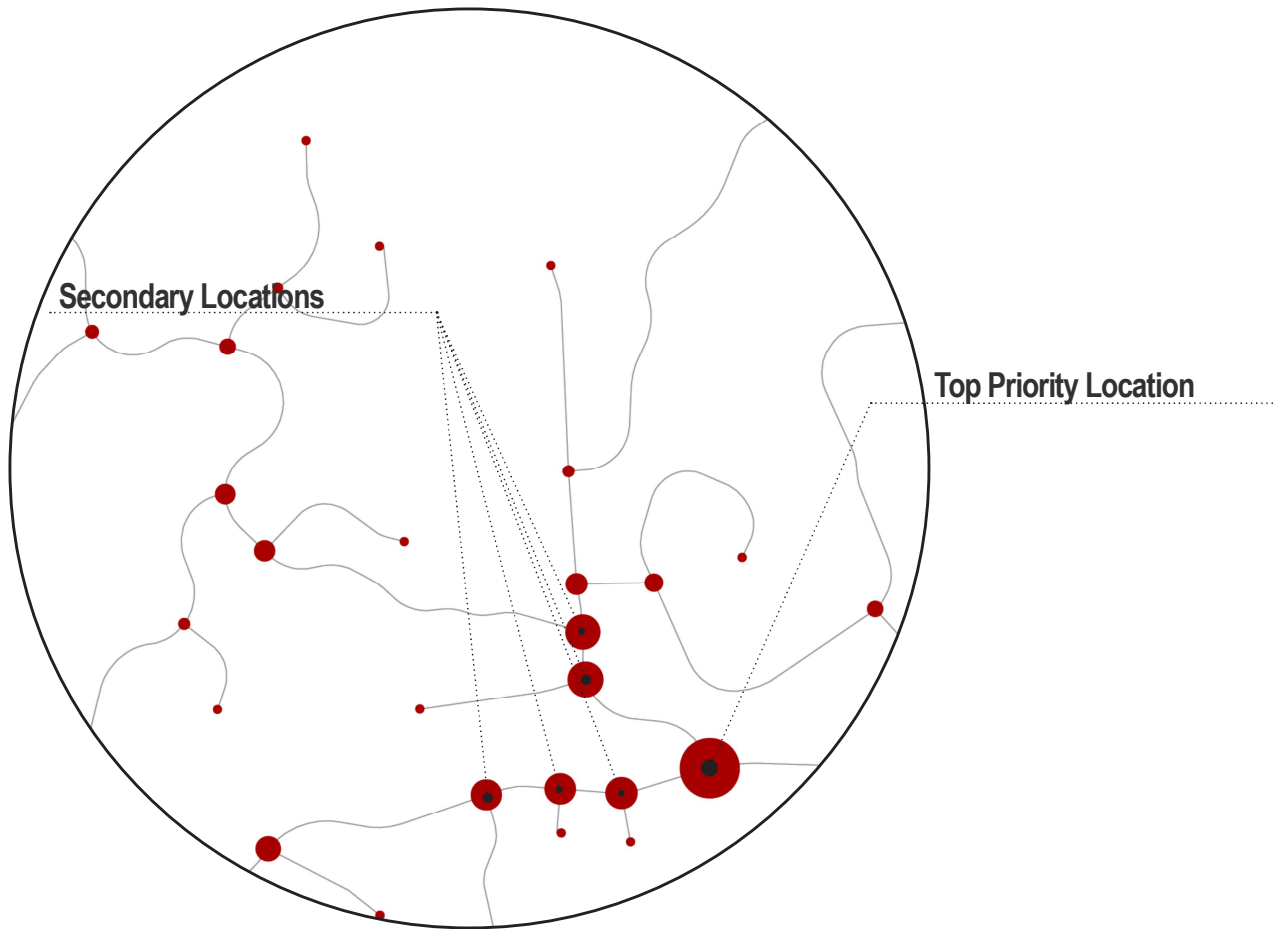




# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Greatest Good for the Greatest Number of People

The model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the "greatest good for the greatest number of people."



# Wildfire Analysis and Roadway Mitigation Prioritization

# Bell Canyon

Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



# Wildfire Analysis and Roadway Mitigation Prioritization

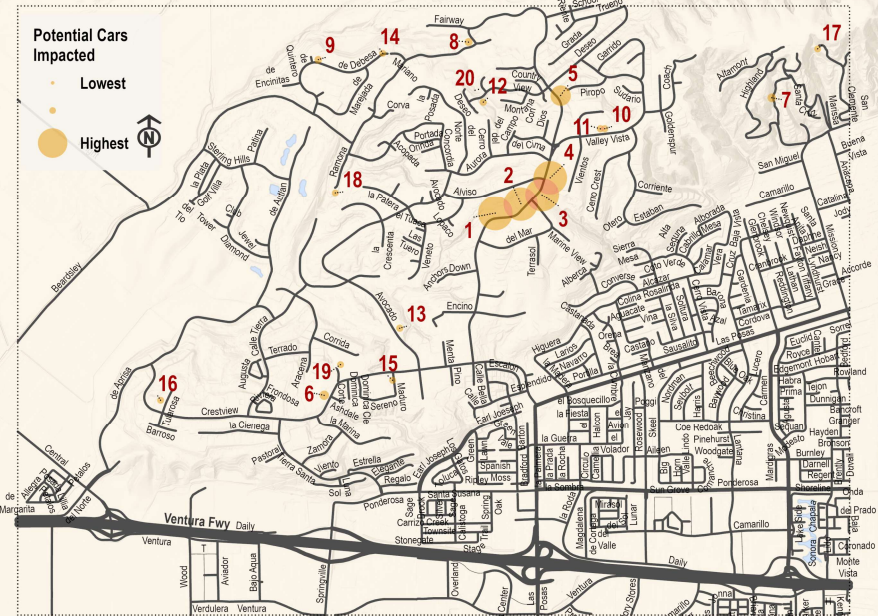
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



All areas should be field verified.



# Wildfire Analysis and Roadway Mitigation Prioritization

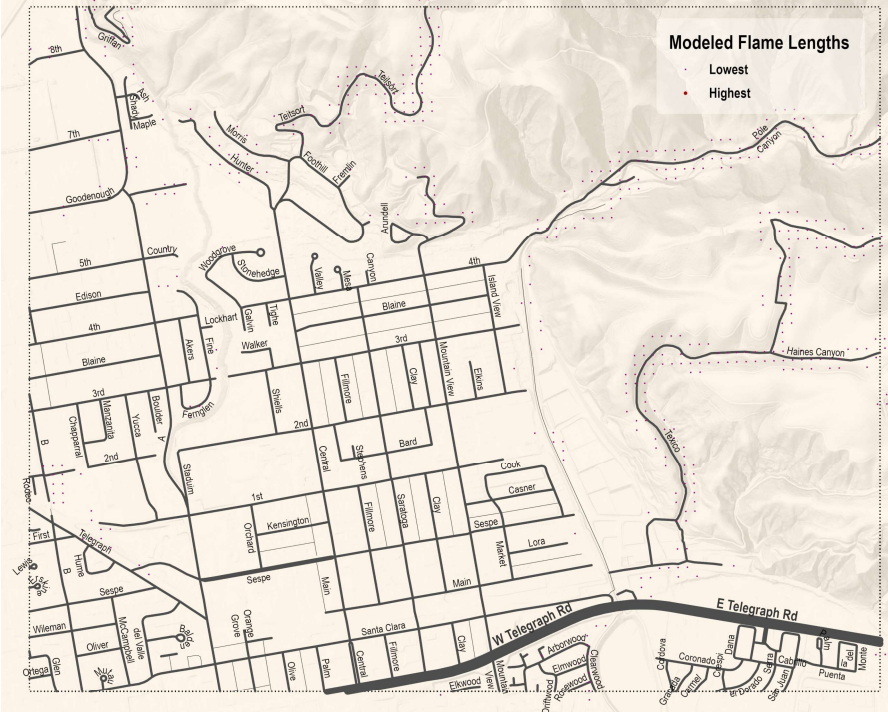
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis did not reveal any significant locations for mitigation.  
All modeled flame lengths below 4ft. threshold.



All areas should be field verified.





# Wildfire Analysis and Roadway Mitigation Prioritization

# Moorpark

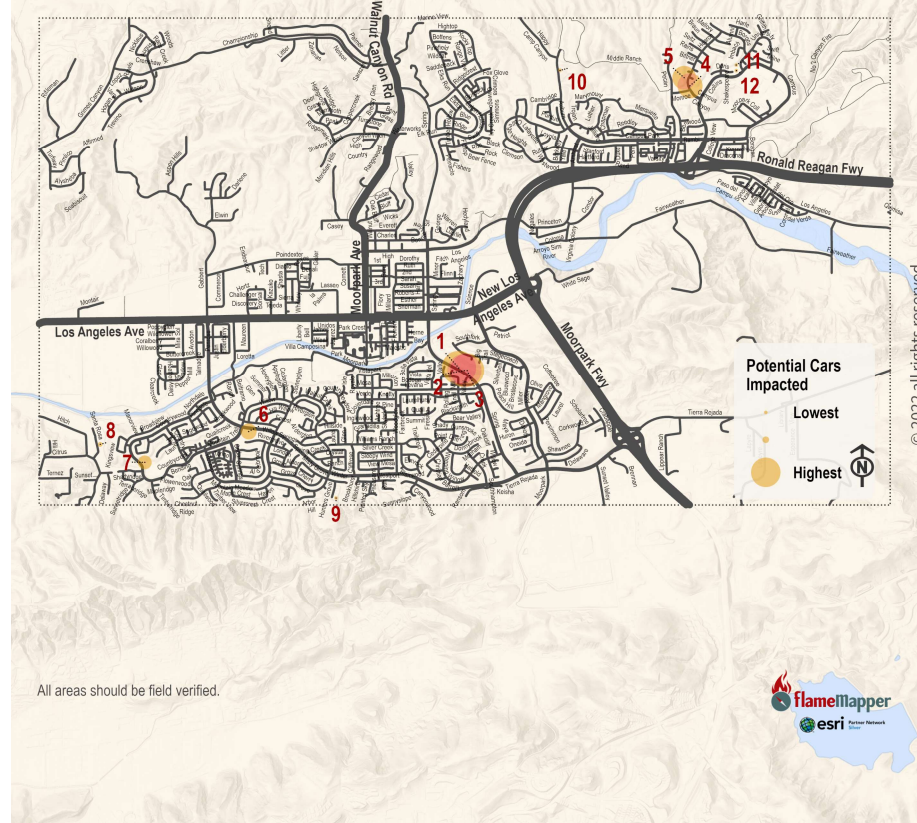
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twelve locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



All areas should be field verified.





# Wildfire Analysis and Roadway Mitigation Prioritization



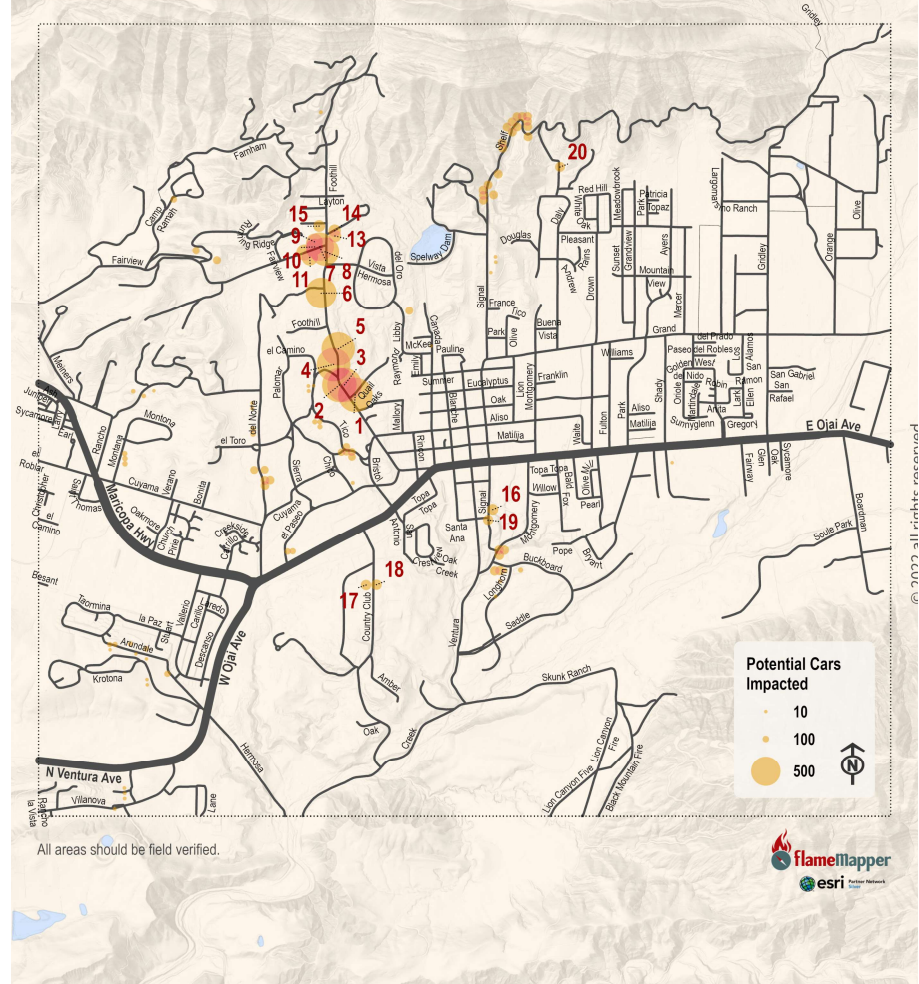
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.





# Wildfire Analysis and Roadway Mitigation Prioritization

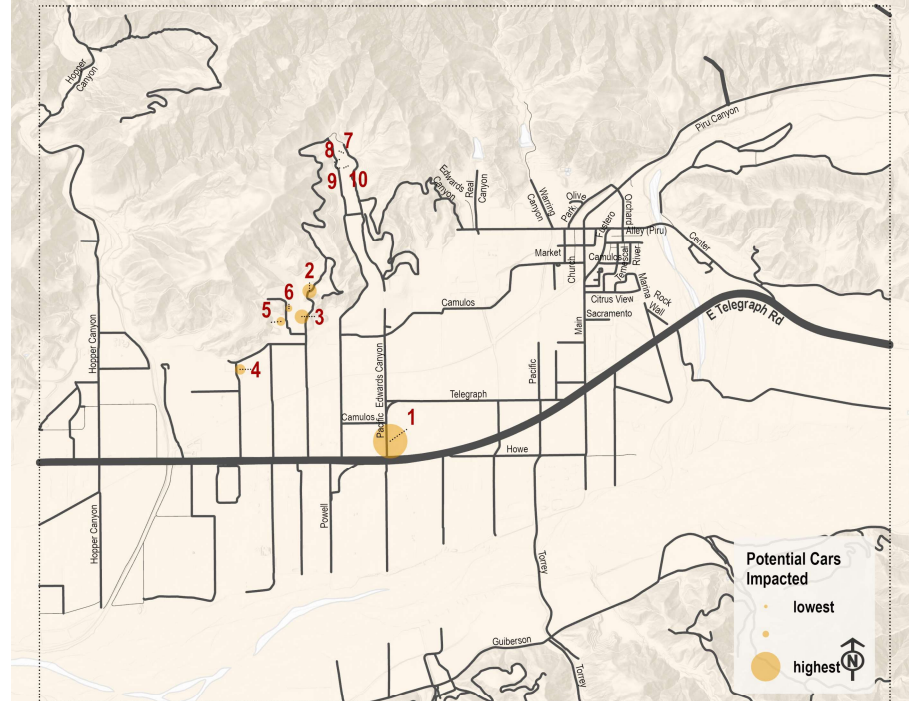
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top ten locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



All areas should be field verified.



# Wildfire Analysis and Roadway Mitigation Prioritization

# Santa Paula

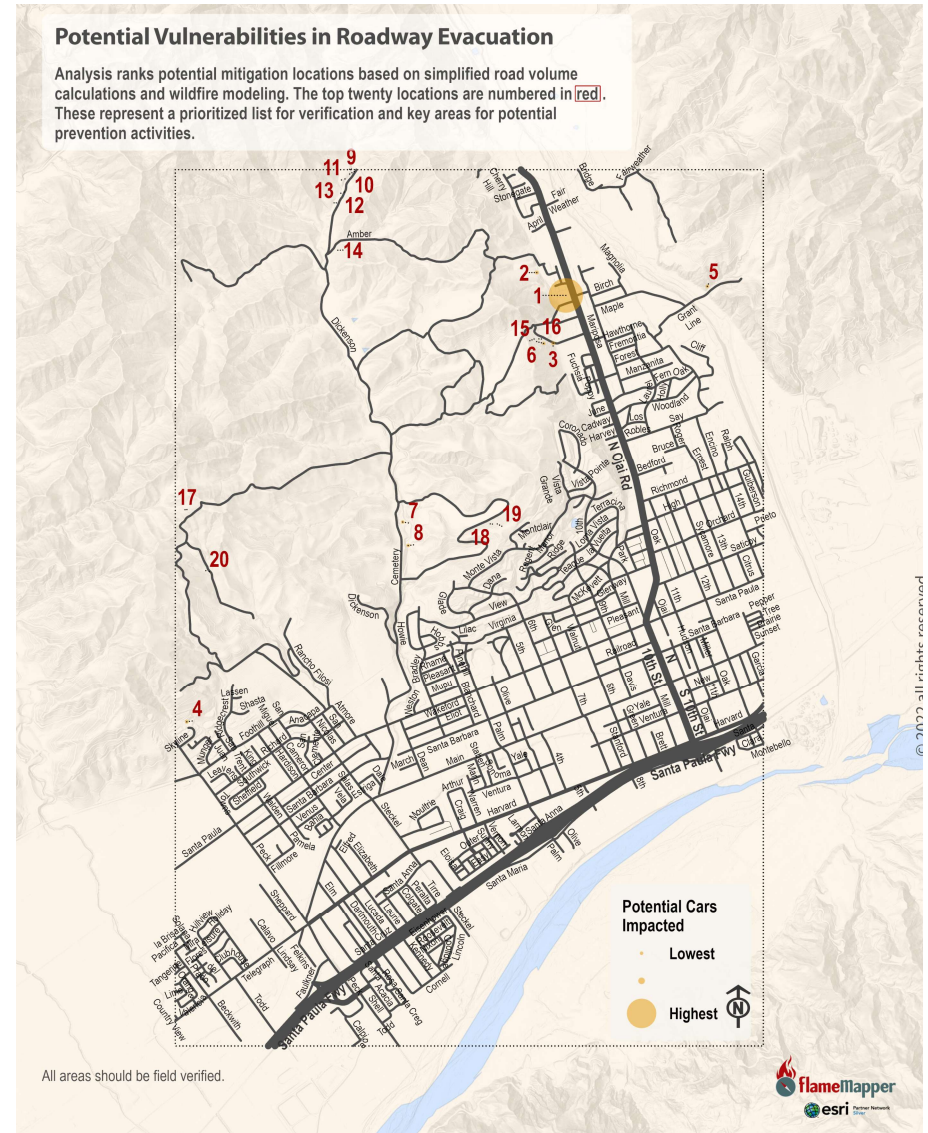
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



# Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Greatest Good for the Greatest Number of People

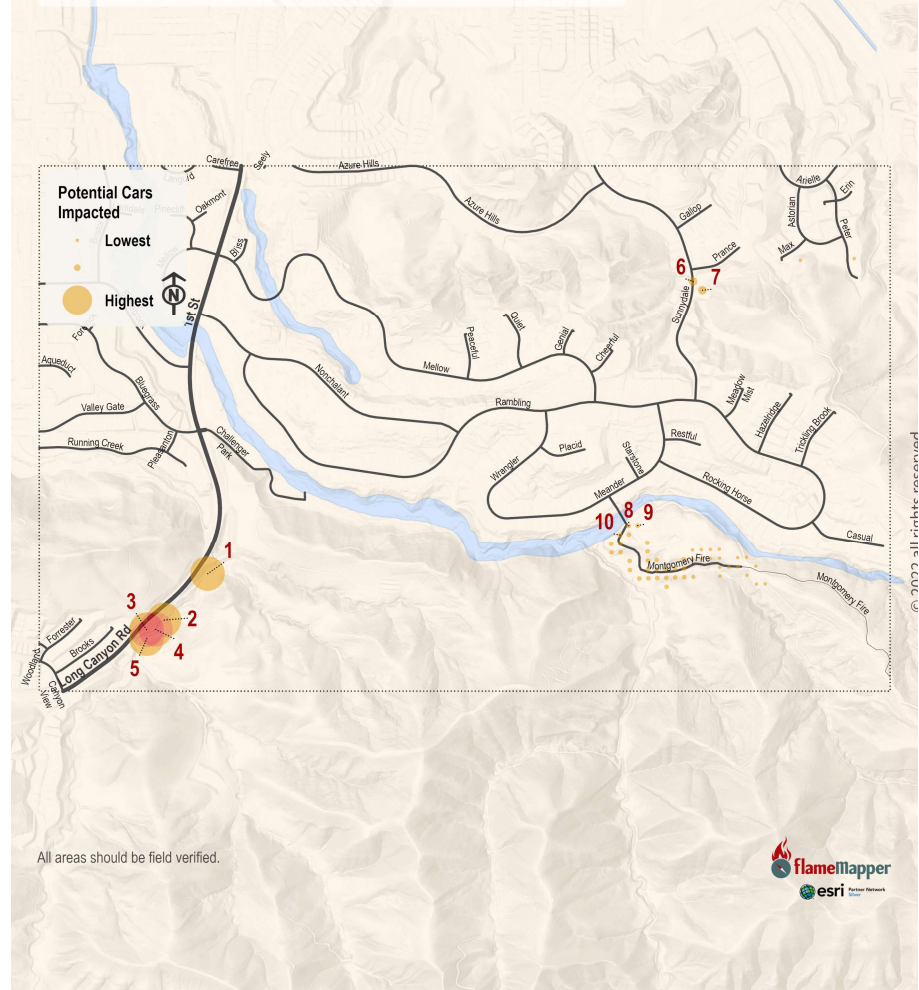
Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

# Bridal Park Estates, Simi Valley

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top ten locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.





## Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Greatest Good for the Greatest Number of People

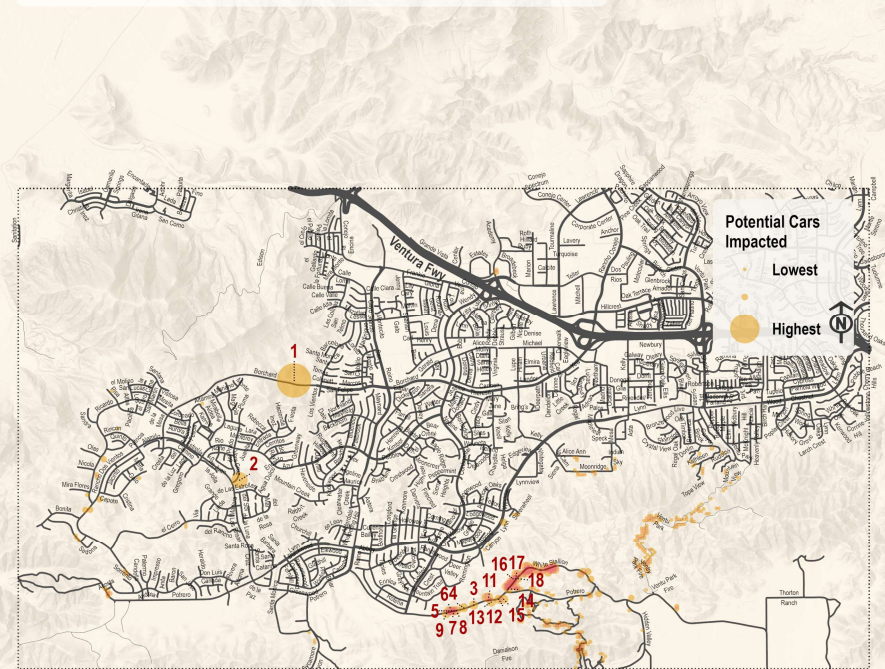
Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Newbury Park, Thousand Oaks

### Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



All areas should be field verified.



## Wildfire Analysis and Roadway Mitigation Prioritization

Principle: Greatest Good for the Greatest Number of People

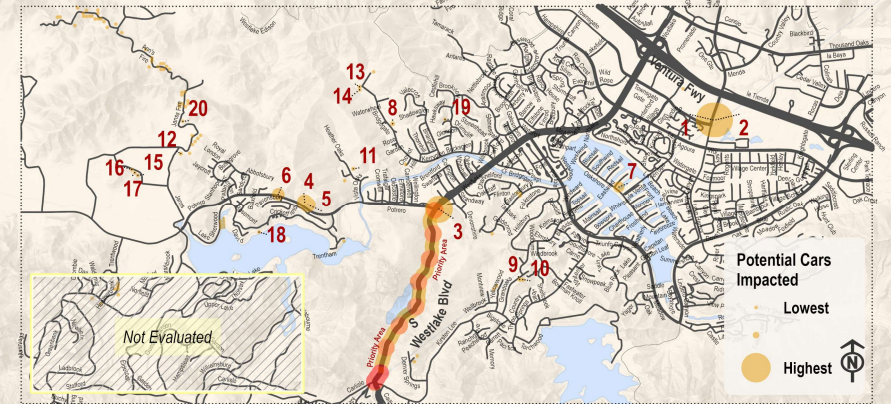
Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Sherwood/Westlake, Thousand Oaks

### Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



All areas should be field verified.





# Wildfire Analysis and Roadway Mitigation Prioritization

# Colina Vista, Ventura

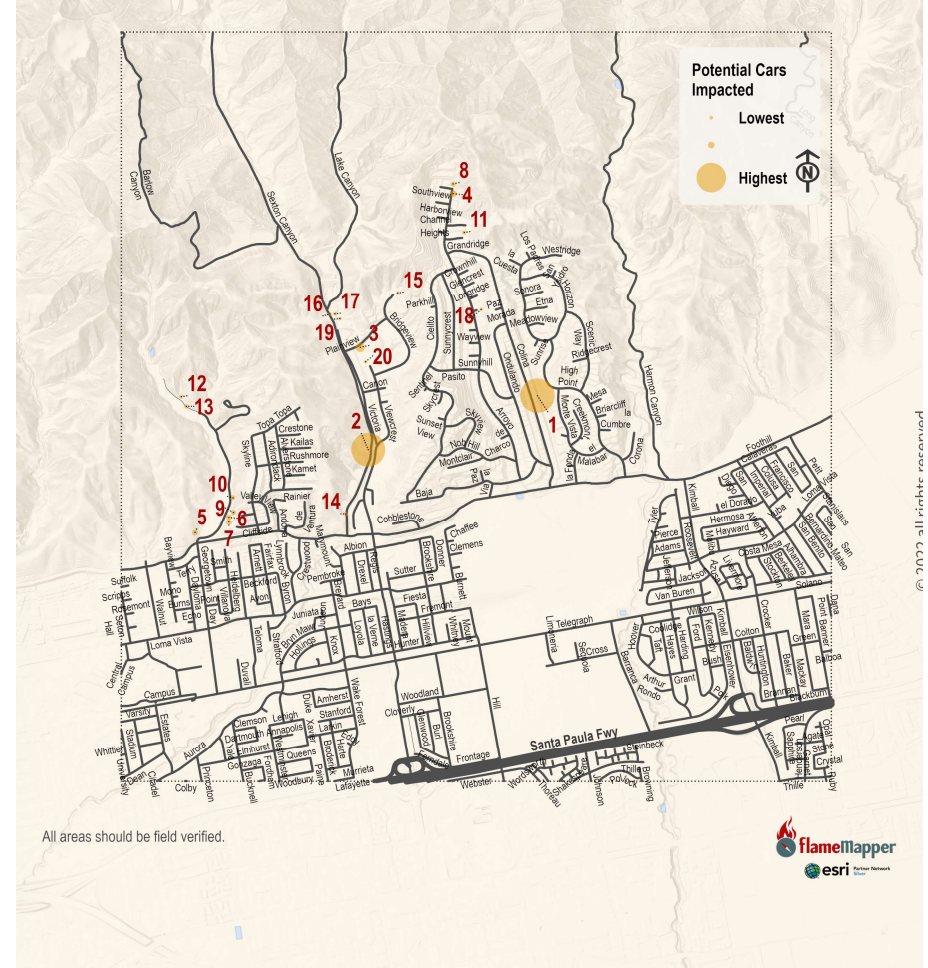
Principle: Greatest Good for the Greatest Number of People

Simplified road evacuation model attempts to establish a road hierarchy in an evacuation scenario where intersections are ranked based on modeled cars that pass through. This assumes that each building evacuates two cars, this assumption does not account for multifamily buildings. However, multifamily buildings are unlikely to be inside the localized evacuation study areas.

This model is not a traffic study or traffic flow model. It is not intended to be used for understanding actual traffic volume, roadway capacity, or assist with evacuations in an actual disaster scenario. As stated above the model establishes a road hierarchy in order to help understand prioritization on roadway wildfire mitigation projects based on the principle of doing the “greatest good for the greatest number of people.”

## Potential Vulnerabilities in Roadway Evacuation

Analysis ranks potential mitigation locations based on simplified road volume calculations and wildfire modeling. The top twenty locations are numbered in red. These represent a prioritized list for verification and key areas for potential prevention activities.



# Wildfire Analysis and Roadway Mitigation Prioritization

## Representations and Warranties, Limitation of Liability, Indemnification

FlameMapper's software and data layers are intended to assist communities and partners with estimates of wildfire behavior, before, during, or after an event. It is not intended to replace or take priority over on-the-ground observations made by experienced fire behavior analysts supporting operations. Every effort has been made to provide accurate information based on scientifically supported formulas and knowledge of wildfire behavior gained from applied research and field observations from years of work conducted by wildfire professionals.

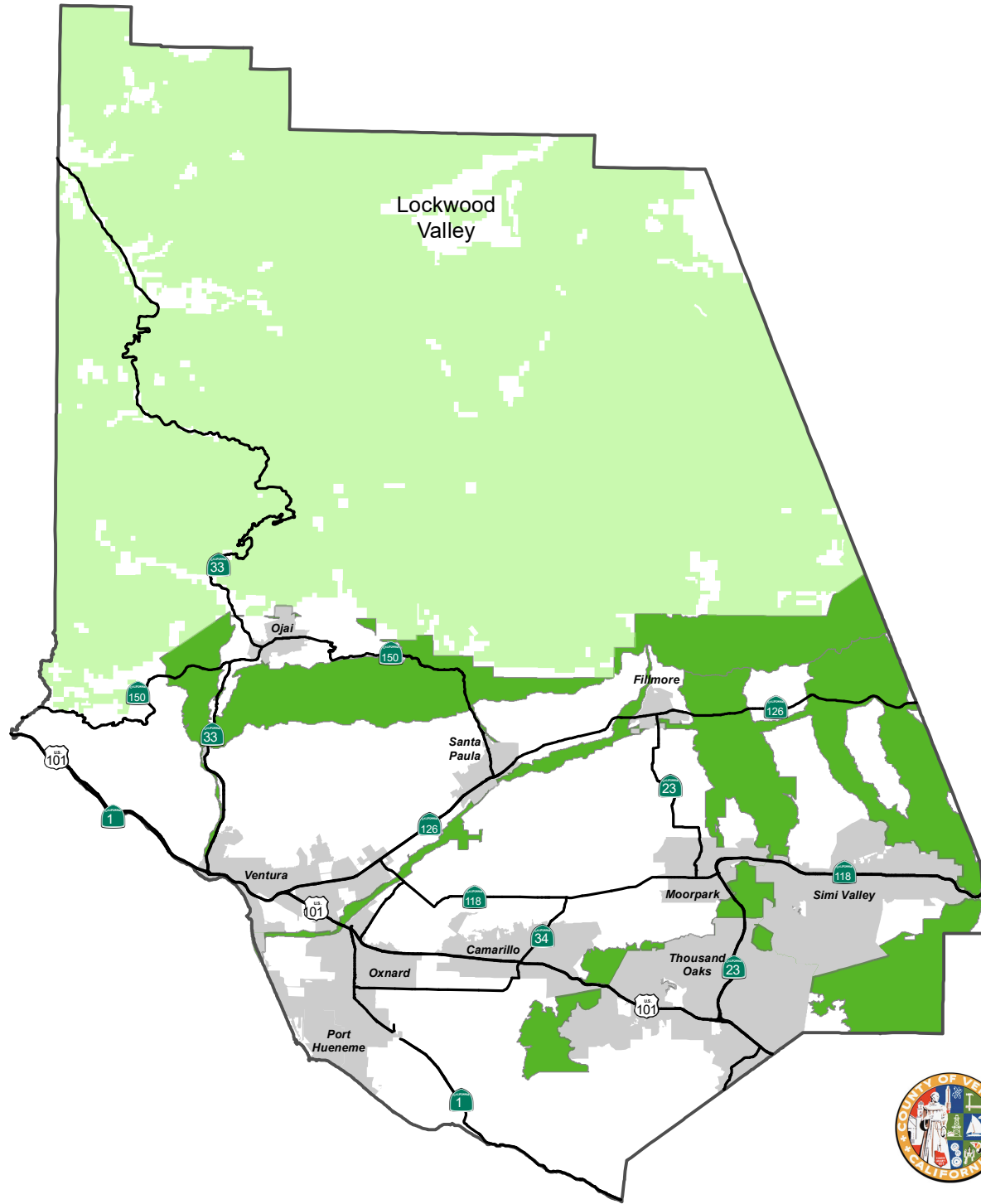
Due to the dynamic nature of ecological modeling, users assume the risk of using this information and shall have no remedy at law or equity against FlameMapper LLC in case the information provided is inaccurate, incomplete or otherwise defective in any way. User expressly agrees that use of information provided by FlameMapper LLC and all derivatives is at the user's sole risk.

FlameMapper LLC makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the information provided herein. Nor does FlameMapper LLC warrant the use of the information is free of any claims of copyright infringement. The information is being provided "as is" and without warranty of any kind either expressed, implied or statutory, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

By using this information or data contained herein, you hereby release FlameMapper LLC and their employees, agents, contractors, and suppliers from any and all responsibility and liability associated with its use. In no event shall FlameMapper LLC be liable for any direct, indirect, incidental, consequential, or special damages, including loss of life, or damages arising in any way out of the use of this software, or use of the information contained herein. This includes but is not limited to any suggested suppression tactics, mitigation tactics, hot spot analysis, influential fuel loads parcels, evacuation routes, separation distances or safety zones.

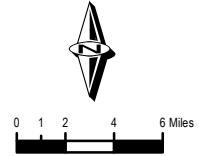


## **APPENDIX C – ADDITIONAL MAPPING**



Wildlife Corridors and  
Habitat Connectivity  
Overlay Zone Map



- Habitat Connectivity and Wildlife Corridors**
- Incorporated Cities**
- Freeways & Highways**
- Los Padres National Forest**



Sources: ESRI, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, ESRI Japan, OpenStreetMap contributors

SANTA  
BARBARA  
COUNTY

LOS  
ANGELES  
COUNTY

 Coastal Zone Boundary  
 Incorporated Cities

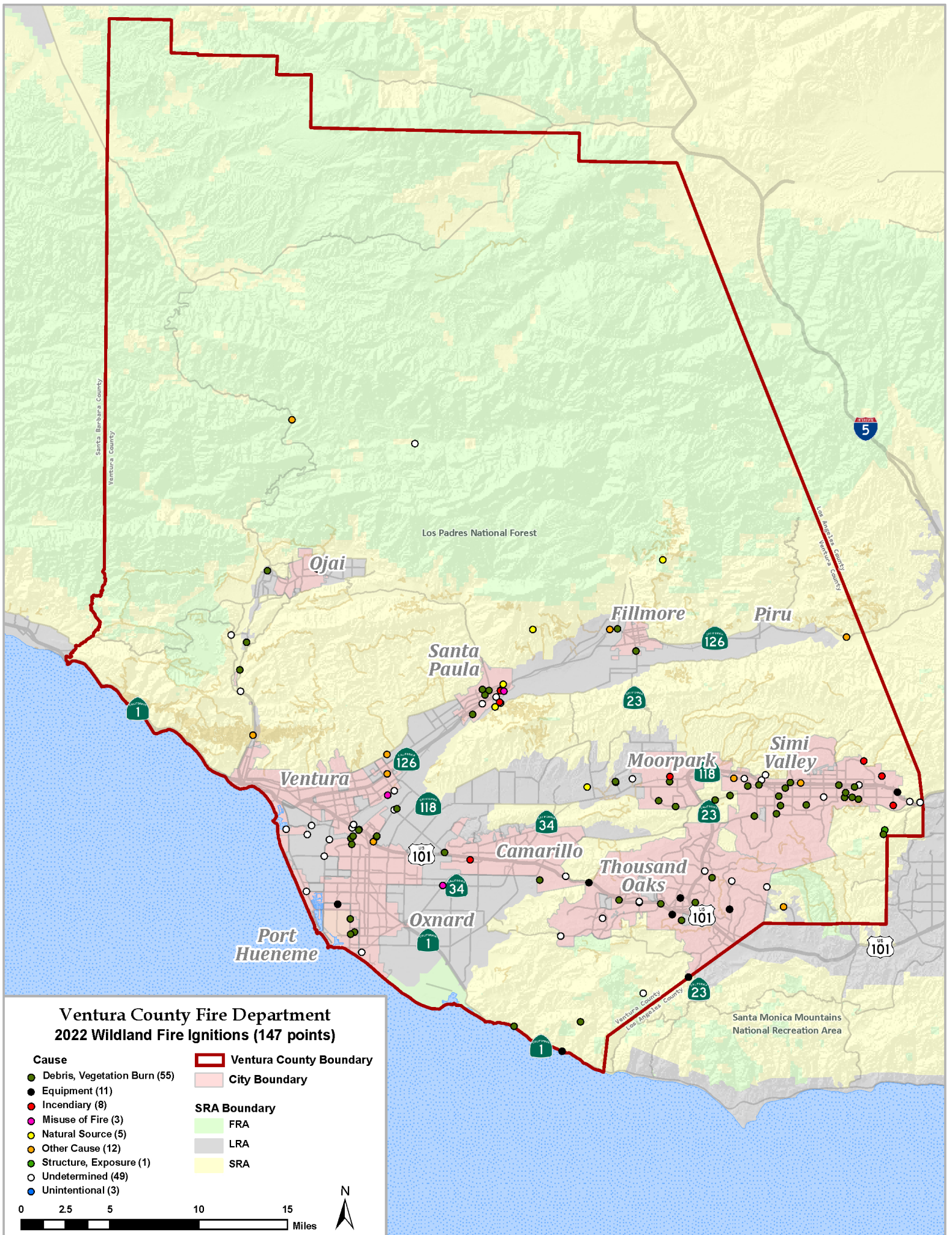
Sources: Esri, HERE, DeLorme, Swatch, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

0 1 2 4 Miles  
Disclaimer: this map was created by the Ventura County Resource Management Agency Information Systems GIS, which is designed and operated solely for the convenience of the County and related public agencies. The County does not warrant the accuracy of this map and no decision involving a risk of economic loss or physical injury should be made in reliance thereon.



# Ventura County Coastal Zone Boundary





## **APPENDIX D - PRIORITY ACTIONS TABLES**

## Potential VRFSC Priority Actions

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
Hi-Lo Siren	Community Engagement and Education	Heightened emergency notification	Ongoing	VC Sheriff's Office	Information sharing about the program	<a href="https://www.venturasheriff.org/2020/11/10/countywide-media-release-hi-low-siren-to-help-with-evacuations/">https://www.venturasheriff.org/2020/11/10/countywide-media-release-hi-low-siren-to-help-with-evacuations/</a>
Door to Door Notifications	Community Engagement and Education	Delivery of important facts directly to the community	Planning	VRFSC	Develop door hangars with fire safety information for strategically located neighborhoods	
VC Emergency Website	Community Engagement and Education	Internet access provides broad guidance	Ongoing	VC OES	Information sharing about the program	<a href="https://www.vcemergency.com/">https://www.vcemergency.com/</a>
Wireless Emergency Alerts	Community Engagement and Education	Heightened emergency notification	Ongoing	CAL OES	Information sharing about the program	<a href="https://calalerts.org/">https://calalerts.org/</a>
Ready, Set, Go!	Community Engagement and Education	Emergency Preparedness Planning program with Wildfire Component. Bilingual and a second version for Farmers and Ranchers	Ongoing	VCFD	Information sharing about the program	<a href="https://vcfd.org/public-info/ready-set-go/">https://vcfd.org/public-info/ready-set-go/</a>
VC Alert Program	Community Engagement and Education	Bilingual emergency notification system	Ongoing	VC OES	Information sharing about the program, Registration links	<a href="https://www.readyventuracounty.org/vc-alert/">https://www.readyventuracounty.org/vc-alert/</a>
Fire Communications Center	Community Engagement and Education	New 911 call facility	Completed	VCFD		<a href="https://vcfd.org/services/fire-communications-center/">https://vcfd.org/services/fire-communications-center/</a>
Red Cross - Youth Programs	Community Engagement and Education	Bilingual youth focused emergency preparedness training.	Ongoing	RED CROSS	Information sharing about the program, Pamphlet Links	<a href="https://www.redcross.org/content/dam/redcross/get-help/youth/MyPreparednessWorkbook.pdf">https://www.redcross.org/content/dam/redcross/get-help/youth/MyPreparednessWorkbook.pdf</a> <a href="https://www.redcross.org/get-help/how-to-prepare-for-emergencies/teaching-kids-about-emergency-preparedness/prepare-with-pedro.html">https://www.redcross.org/get-help/how-to-prepare-for-emergencies/teaching-kids-about-emergency-preparedness/prepare-with-pedro.html</a>
VC Wildfire Collaborative	Community Engagement and Education	Through regional collaboration, the VCWC will work to coordinate resources, advise local and state agencies, work with the community, and secure funding to help prevent and recover from wildfires.	Ongoing	VDRCD	Provide co-leadership with the RCD to achieve stated goals	<a href="https://vcrcd.org/vcwc/">https://vcrcd.org/vcwc/</a>
Virtual Wildfire Speaker Series	Community Engagement and Education	Quarterly FREE wildfire speaker series targeted to the community of Ventura County. This is an opportunity for the	Ongoing	VCRCD	Provide co-leadership with the RCD to achieve stated goals	<a href="https://vcrcd.org/wildfirespeaker-series/">https://vcrcd.org/wildfirespeaker-series/</a>

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
		community to engage with wildfire experts.				
Radio	Community Engagement and Education	Develop informational radio spots and purchase air time or seek interviews with local public radio	Planning	VRFCS	Provide funding, prepare materials, record interviews	<a href="https://www.kclu.org/">https://www.kclu.org/</a>
Firewise Community Creation	Community Engagement and Education	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.	Ongoing	VRFSC	Provide information sessions, training, and application assistance for interested communities. Hold collaborative workshops through VC Wildfire collective. Seek grant funding to hire a Firewise Community Liaison for countywide assistance.	<a href="https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA">https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA</a>
Hosting booths at community events: block parties, fairs, street festivals, farmer's markets...	Community Engagement and Education	Tabling at public events will familiarize the public with the VRFSC and what the organization can do.		VRFSC	Provide informational material, talks with the public, partner with local fire stations to show equipment.	
Wildfire Preparedness Workshops	Community Engagement and Education/Structural Hardening	Providing home hardening workshops for different areas of the county	Ongoing	VRFSC	Hosting informational workshops	<a href="https://venturafiresafe.org/outreach-and-education/">https://venturafiresafe.org/outreach-and-education/</a>
Developing a fire safe "house" for display at fairgrounds	Community Engagement and Education/Defensible Space/Structural Hardening	Display a real structure made from the suggested firesafe building materials with Zone 0 and Zone 1 if space allows. House at the Fair grounds or develop a trailer version.		VRFSC	Seek grant funding to partner with a local builder as part of a builder/landscaper teaming exercise to display appropriate construction and Fuel Modification Zone Planning	
Promote Fire Hazard Reduction Program (FHRP)	Community Engagement and Education/Defensible Space/Structural Hardening	Cornerstone of the Wildland Fire Action Plan. Nationally recognized defensible space program.		VCFD	Information sharing about the program, Pamphlet Links	<a href="https://vcfd.org/fire-prevention/fire-hazard-reduction-program-fhrp/">https://vcfd.org/fire-prevention/fire-hazard-reduction-program-fhrp/</a>
Work with Cal-Trans to install or use electronic highway signs to convey extreme fire danger	Community Engagement and Education/Evacuation	Heightened emergency notification		Cal Trans	Seek funding, begin discourse with Caltrans	
Work with insurance services to provide info sessions for landowners.	Community Engagement and Education/Defensible Space/Structural Hardening	Provide up-to-date homeowner's insurance information sessions for landowners seeking advice. Develop a document outlining important information.		VRFCS	Work with insurance companies to have info sessions available for the interested public	<a href="https://us02web.zoom.us/j/81ae-3LT8QhXgDoHFUXUVIXsF93tftpwzQBjo1GzTnvXaBkGdGABkCzZzbLmZF23d3vNnT3kMiviUi5Hb.8nvfbDNDWCBVsqzf?continueMode=true&amp;_x_zm_rtaid=U">https://us02web.zoom.us/j/81ae-3LT8QhXgDoHFUXUVIXsF93tftpwzQBjo1GzTnvXaBkGdGABkCzZzbLmZF23d3vNnT3kMiviUi5Hb.8nvfbDNDWCBVsqzf?continueMode=true&amp;_x_zm_rtaid=U</a>



Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
						<a href="https://www.vcfcd.org/wp-content/uploads/2020/02/VCFD-RSG-Wildfire-Action-Plan-Booklet-2016.pdf">9wSB_sURNqaDbpR4hVLFw.1628183651843.62d11939427c1303a93191c990b8f230&amp;_x_zm_rhtaid=474</a>
Update Ready, Set, Go with Zone 0 information	Community Engagement and Education/Defensible Space/Structural Hardening	Provide the most up-to-date information to the public on defensible space and structural hardening rules and guidelines		VRFCS	Seek grant funding to revise and publish new guidelines in the pamphlets in English and Spanish.	<a href="https://vcfd.org/wp-content/uploads/2020/02/VCFD-RSG-Wildfire-Action-Plan-Booklet-2016.pdf">https://vcfd.org/wp-content/uploads/2020/02/VCFD-RSG-Wildfire-Action-Plan-Booklet-2016.pdf</a>
Develop more CWPPs for communities within Ventura County	Community Engagement and Education	More CWPPs mean more focus on creating a firesafe Ventura County and increased community engagement in the process and projects.	Ongoing	VRFSC	Seek grant funding and partnerships with communities in need of a CWPP	
Work with migrant worker advocacy groups to reach priority populations with bilingual messaging	Community Engagement and Education	Equips migrant and bilingual worker population with information about emergency preparedness and evacuation events		Ventura County Human Services Agency	Promote multilingual outreach programs with the goal of reaching all corners of the population in advance of an emergency.	<a href="https://www.ventura.org/human-services-agency/farmworker-resources/">https://www.ventura.org/human-services-agency/farmworker-resources/</a>
Increased community signage	Community Engagement and Education	Develop informational signage to post in WUI neighborhood areas at risk.		VRFSC	Seek grant funding to have signs constructed and placed in strategic areas around the county.	
Promote VCFD Standards and Guidelines (416-Landscape and Fuel Modification Zone Plans, 418-Defensible Space, 515-Defensible Space and Fuel Modification Zones, 517-Application of Chips and Mulch in Defensible Space)	Structural Hardening	These measures have been designed to promote best practices for home safety during a wildfire event.	Ongoing	VCFD	Provide information sessions, trainings, and materials. Hold collaborative workshops through VC Wildfire collective.	<a href="https://vcfd.org/fire-prevention/standards-guidelines/">https://vcfd.org/fire-prevention/standards-guidelines/</a>
Structural Hardening Assessments (VCFD Wildfire Property Assessment)	Structural Hardening	These measures have been designed to promote best practices for home safety during a wildfire event.	Ongoing	VCFD	Provide information sessions, trainings, and materials. Hold collaborative workshops through VC Wildfire collective.	<a href="https://vcfd.org/fire-prevention/fire-hazard-reduction-program-fhrp/">https://vcfd.org/fire-prevention/fire-hazard-reduction-program-fhrp/</a>
Home Hardening Resiliency Program	Structural Hardening	Offers free home inspections for residents to inform and guide the process	Ongoing	VRFSC	Conducting assessments with Wildfire Safety Liaisons staff.	<a href="https://venturafiresafe.org/home-hardening/">https://venturafiresafe.org/home-hardening/</a>
Resident Grant	Structural Hardening	Can Provide funding for qualifying residents to pay for		VRFSC	Aligns with Home Hardening Resiliency Program	

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
Program Pilot		home hardening retrofits			assessments to accomplish the work. Seek Grant Funding.	
Cost share program for firesafe home upgrades	Structural Hardening	Alternative to the Resident Pilot Grant Program		VRFSC	Aligns with Home Hardening Resiliency Program assessments to accomplish the work. Seek Grant Funding.	
List of vetted landscapers and contractors for mitigation efforts	Structural Hardening	Provides a list of trusted and knowledgeable vendors and contractors to provide appropriate home hardening/defensible space services for easy public perusal.		VRFSC	Develops relationships with vendors and contractors to train them and use this training to provide better services for retrofits aligning with Home Hardening Resiliency Program.	
Standardized data collection system for up-to-date progress and success of home hardening projects	Structural Hardening	Provides a list of projects and communities where they occur to better focus future Home Hardening program efforts for communities in need.		VRFSC	Seek Grant funding to develop a tracking and reporting program	
Promote fire resistant landscaping and construction (include materials list info)	Structural Hardening					
Develop inventory of structures with wood shake roofing and consider matching grants	Structural Hardening	Similar to the cost share program, this list can inform priority project areas and appropriate funding requests		VRFSC	Seek funding to support this program.	
AB-38: requires sellers in High and VHFHSZ to provide proof that property is in compliance with defensible space requirements. Property inspection required depending on location.	Defensible Space	Removes liability from buyer and requires compliance with Defensible space requirements.		VCFD	Provide program support with trained staff able to conduct AB-38 inspections. Provide information to the public on the program	<a href="https://vcfd.org/ab38/">https://vcfd.org/ab38/</a>
Ventura County Multi-Jurisdictional Hazard Mitigation Plan OA19: Develop veg mgmt. program providing services to elderly, disabled,	Defensible Space	Provide support to members of the community in need to strengthen wildfire resilience for all		VRFSC	Seek grant funding to conduct defensible space vegetation management project for qualifying residents. This stems from the MJHMP and can be led by the VRFSC.	<a href="https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf">https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf</a>

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
low-income property owners						
More curbside chipper events in high fire risk neighborhoods	Defensible Space	Provide support to members of the community in need to strengthen wildfire resilience for all. Incentivizes creating defensible space by removing a large hurdle in the process.		VRFSC	Seek grant funding to support more community chipper days.	<a href="https://venturafiresafe.org/chipper-program/">https://venturafiresafe.org/chipper-program/</a>
Seek Grants for palm tree maintenance and removal	Defensible Space	Reduced fire hazard in the WUI and defensible space		VRFSC	Seek funding to support this program.	
Oak restoration to establish native groves as windbreaks	Defensible Space	Provides native fire-adapted vegetation in strategic locations.		VRFSC	Seek grant funding to support planning, materials, and planting. Need community and municipality support	
Include all (Zone 0-3) specifics as detailed in the unit plan pg. 33	Defensible Space	Provides alternative location for this valuable data.		VRFSC	Include specific guidelines in the CWPP in this section.	<a href="https://osfm.fire.ca.gov/media/pvfu1q/2022-ventura-county-unit-fire-plan.pdf">https://osfm.fire.ca.gov/media/pvfu1q/2022-ventura-county-unit-fire-plan.pdf</a>
Tree Equity Score	Defensible Space	This tool can be used to determine what communities would benefit most from tree planting projects		VRFSC	Host a link to this tool on the website, and use it to inform future planting projects	<a href="https://treeequityscore.org/">https://treeequityscore.org/</a>
Barranca fuel reduction adjacent to housing	Defensible Space	Strategic fuel reduction in high risk areas		City of Ventura Fire Department	Can seek out grant funding to support and compliment this ongoing effort	
Workforce development for firesafe landscaping and home hardening.	Defensible Space	This project can help develop the skills necessary to appropriately create defensible space. Participants can benefit from working with VCFD sawyers, Certified Arborists, and AB-38 inspectors.		VRFSC	Seek grant funding to develop a program with instructors and provide a "scholarship" to qualifying applicants	
Table of 33 listed projects from the 2022 VCFD Unit Strategic Fire Plan. See Next Sheet "2022 VCFD Unit Plan Project List"						<a href="https://osfm.fire.ca.gov/media/pvfu1q/2022-ventura-county-unit-fire-plan.pdf">https://osfm.fire.ca.gov/media/pvfu1q/2022-ventura-county-unit-fire-plan.pdf</a>
2022 Team Rubicon and VRFSC worked on Eucalyptus	Fuels Reduction	Fuel reduction in strategic or high risk areas	Ongoing	VRFSC	Partnered with Team Rubicon to implement fuels reduction	<a href="https://teamrubiconusa.org/">https://teamrubiconusa.org/</a>

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
understory fuel removal, and Foothill roadside clearance in Fillmore						
Arundo removal at Emma Wood State Beach	Fuels Reduction	Fuel reduction in ecologically sensitive and high risk areas	Ongoing	California Department of Parks and Recreation		
Watershed Protection District: Arundo, English ivy, Spanish broom removal in Ventura River	Fuels Reduction	Fuel reduction in ecologically sensitive and high risk areas	Completed	Ventura Watershed Protection District		
NFWF: Bio control of fire promoting riparian invasives in LPNF	Fuels Reduction	Fuel reduction in ecologically sensitive and high risk areas	Completed	NFWF		
R.A Atmore and Son's: *S-219 Fire Boss Course *Prescribed Burns *Weed Abatement *Matilija Creek Giant Reed Treatment *Arundo Treatment in Ventura River *Oak Planting in Ventura and Barlow Canyon *Trail Restoration Barlow Canyon	Fuels Reduction	Education and fuels reduction in high risk areas	Completed	R.A. Atmore and Sons		
Arundo treatment	Fuels Reduction	Fuel reduction in ecologically sensitive and high risk areas		VRFSC	Seek grant funding to begin/continue/expand this work in riparian areas of Ventura County	
Oak planting	Fuels Reduction	Native species and landscape restoration		VRFSC	Seek Grant funding for strategic native planting projects	
Ventura County Multi-Jurisdictional Hazard Mitigation Plan OA21: Maintain hazards fuel	Fuels Reduction	Fuel continuity reduction in MJHMP	Ongoing	Ventura County	Work with jurisdictions within the county to treat their identified prioritize fuels reduction projects. Seek Grant funding for this program.	<a href="https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf">https://vcportal.ventura.org/OES/2022-03-01_VenturaHMP_Vol2_PublicReviewDraft-compressed.pdf</a>

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
treatment program for areas that have been identified with overgrown/dead brush/trees to reduce the potential for tree-to-tree ignition. Ensure that a "maintenance now" component to provide continued fire resistance is part of the program.						
VCPBA: Provide training, tools, and resources to conduct safe Rx Burns	Fuels Reduction	Energize interested locals to understand the ecological necessity of fire in Ventura and how it can be used as a restorative and protective tool in the fuels reduction arsenal.	Ongoing	VPBA	Can support this program by providing in-house expertise, connections to VCFD, burn boss courses, information sharing, grant funding.	<a href="https://vcrcd.org/vcpba/">https://vcrcd.org/vcpba/</a>
Use Flame Mapper outputs to highlight priority treatment areas, and find funds to carry out project work.	Fuels Reduction	Prioritizes fuels reduction treatment areas through technical analysis and modeling to have the greatest effect for hazard removal on evacuation routes	Ongoing	VRFSC	Seek grant funding and work with local jurisdictions to treat these targeted sites.	<a href="https://flamemapper.com/">https://flamemapper.com/</a>
Work with Cal-Trans to promote roadside fuel reduction and use of pre-fire retardants	Fuels Reduction	Reduces roadside ignition potential by treating fuels in high hazard areas.	Ongoing	Caltrans	Promote alternative treatment methods such as the application of pre-fire retardants early in fire season. Seek grant funding to support this program	<a href="https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/roadside-vegetation-control">https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/roadside-vegetation-control</a>
Encourage grazing in open spaces and parks	Fuels Reduction	Ecologically restorative fuels reduction method.	Ongoing	VRFSC	Seek grant funding to support an ongoing grazing program. Work with experienced local grazers to build backlog of properties and annual schedule of treatments	
Roadside fuel treatment miles goals	Fuels Reduction	Reduces roadside ignition potential by treating fuels in high hazard areas.	Ongoing	VCFD	Seek grant funding to support work with VCFD Unit Plan. This project work can be a big focal point for VRFSC efforts to reduce hazard fuels and tie in with Flame Mapper results.	
Develop list of fuel treatment methods and local costs per	Fuels Reduction	Provides reliable public information on effective fuels treatment methods to use, how		VRFSC	Developing this guidance can tie into the trusted contractor guide for defensible space and	



Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
acre/day as a reference guide for landowners		to use them, when to use them, and what the expected cost and pace of work will be.			home hardening projects. Host this information on the VRFSC website. Keep updated.	
Workforce Development, hands-on classes	Fuels Reduction	Provide free or low cost workshops for people interested in careers in wildfire reduction vegetation management.		VRFSC	Seek grant funding to develop curriculum, bring in subject matter experts, and host workshops and courses.	
Provide CAL FIRE's VMP and VTP Guidance to interested landowners. Develop a fuel reduction project database to try and extend the reach of VTP or VMP project across property ownership boundaries.	Fuels Reduction	Provide central repository for public interest in these fuel reduction programs.		VRFSC	Host information page on the VRFSC website for interested local landowners to find the appropriate fuels management treatment options for their needs. Work with interested parties to broaden the reach of projects and include multiple landowners within a project area. Maintain database of interested landowners. Seek grant funding and work with VCRCD and VCFD to get projects permitted.	<a href="https://bof.fire.ca.gov/projects-and-programs/calvtp/">https://bof.fire.ca.gov/projects-and-programs/calvtp/</a>
Community Outreach Campaign to ADA/Disability Community to register with Human Services Agency for evacuation assistance	Community Engagement and Education/Evacuation	Increased community safety and reduced delays for those who need the most help during an emergency	Planning	VCOES	Information sharing about the program, host links to the program on the website	<a href="https://www.ventura.org/human-services-agency/">https://www.ventura.org/human-services-agency/</a>
Durable medical equipment return and replacement	Evacuation	The Transportation Emergency Preparedness Plan ensures necessary DME returned as soon as possible to owners during emergency evacuation events.		Ventura County Healthcare Agency	Promote program for people with disabilities to register with the Ventura County Healthcare Agency for evacuation assistance and DME accounting.	<a href="https://www.goventura.org/wp-content/uploads/2023/02/Transportation-Emergency-Preparedness-Plan-FINAL-No-P11.pdf">https://www.goventura.org/wp-content/uploads/2023/02/Transportation-Emergency-Preparedness-Plan-FINAL-No-P11.pdf</a>
Service animal needs	Evacuation	The Transportation Emergency Preparedness Plan provides guidance for residents with special needs including service animals during emergency evacuation events.		Ventura County Healthcare Agency	Promote program for people with disabilities to register with the Ventura County Healthcare Agency for evacuation assistance and service animals.	<a href="https://www.goventura.org/wp-content/uploads/2023/02/Transportation-Emergency-Preparedness-Plan-FINAL-No-P11.pdf">https://www.goventura.org/wp-content/uploads/2023/02/Transportation-Emergency-Preparedness-Plan-FINAL-No-P11.pdf</a>
Animal evacuations	Evacuation	The Transportation Emergency Preparedness Plan outlines that the Animal Services Department will support		Animal Services	Provide information about animal evacuations during emergency events on the VRFSC website	<a href="https://www.goventura.org/wp-content/uploads/2023/02/Transportation-Emergency-Preparedness-Plan-FINAL-No-P11.pdf">https://www.goventura.org/wp-content/uploads/2023/02/Transportation-Emergency-Preparedness-Plan-FINAL-No-P11.pdf</a>

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
		community evacuations and coordinate with law enforcement to coordinate animal evacuations as needed.				PII.pdf
Ventura County Transportation Commission - Lead and coordinating agencies for operational area evacuations (Table)	Evacuation					
Evacuation Planning and Analysis for Ventura County High Fire Severity Zones	Evacuation	The overall goal of this project is to pre-determine evacuation zones for high fire severity areas, analyze these zones to determine demographics and other evacuation challenges, and educate residents on newly formed zones and evacuation preparedness.	Ongoing	Ventura County Sheriff's Office of Emergency Services	Project promotion, information sharing, community engagement.	Evac Route Grant Report (pcdn.co)
Develop Temporary Evacuation Points (TEP)- Red Cross Concept.	Evacuation	Develops relationship with communities and emergency response officials		VC OES	Hold community information sessions to introduce the public to the emergency services personnel in place to assist and the resources available. Work with sub-CWPP and OES to determine necessary effective and appropriate locations for TEPs.	
Ranch Plan Program	Evacuation	Equips local ranch owners with information specific to their ranch in a format that can be interpreted by mutual aid fire resources during a wildfire incident.		VRFSC	Seek grant funding to complete program re-design and develop plans for landowners.	<a href="https://venturafiresafe.org/programs/">https://venturafiresafe.org/programs/</a>
Promote volunteer services - Citizen Emergency Response Teams (CERT)	Other Mitigation and Preparedness Projects	Citizen involvement is empowering and can result in more effective emergency response when the public has a better understanding of processes and how they can help		VCFD	Promote CERT Program information on website and at tabling events.	<a href="https://vcfd.org/cert/">https://vcfd.org/cert/</a>
Promote CAL OES Disaster Services Workers	Other Mitigation and Preparedness Projects	Citizen involvement is empowering and can result in more effective emergency response when the public has		CAL OES	Promote CAL OES Disaster Services Workers Program information on website and at tabling events.	<a href="https://www.caloes.ca.gov/office-of-the-director/policy-administration/finance-administration/human-">https://www.caloes.ca.gov/office-of-the-director/policy-administration/finance-administration/human-</a>

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
		a better understanding of processes and how they can help				<a href="https://www.vcfsc.org/resources/disaster-service-worker-volunteer-program/">resources/disaster-service-worker-volunteer-program/</a>
Provide funding and support for Fire Departments to be able to provide preventative and response services	Other Mitigation and Preparedness Projects	Magnify the positive effect that fire professionals can have on the community		VRFSC	Seek grant funding to support Fire Departments through project and outreach assistance	
VC Multi-Jurisdictional Hazard Mitigation Plan OA 17 - Post Fire debris flow hillside treatments (seeding, mulching, check dams, debris racks)	Other Mitigation and Preparedness Projects	Works to prevent secondary disaster and promotes ecologically sound restoration.	Ongoing	Ventura County	Seek grant funding to support restoration projects when necessary.	
Arson Watch Program	Other Mitigation and Preparedness Projects	Volunteer program to prevent Arson		VRFSC	Seek grant funding to develop signage and training for volunteers	<a href="https://www.nnw.org/publication/setting-community-arson-watch-program-your-crime-watch">https://www.nnw.org/publication/setting-community-arson-watch-program-your-crime-watch</a>  <a href="https://www.arsonwatch.com/home.html">https://www.arsonwatch.com/home.html</a>
Work with VCFD and VRCD to develop a CA Coastal Commission Public Works Plan to use CalVTP in the Coastal Zone	Other Mitigation and Preparedness Projects	Will allow the use of the CalVTP Program EIR in the coastal zone of Ventura County.		VRCD	Support the development of this planning document through grant funding, locating potential project areas within the coastal zone to expedite the process, and facilitating discourse between all parties.	<a href="https://bof.fire.ca.gov/projects-and-programs/calvtp/">https://bof.fire.ca.gov/projects-and-programs/calvtp/</a>
Add Alert Wildfire cameras to strategic locations	Other Mitigation and Preparedness Projects	Will improve fire and smoke spotting to speed emergency response to wildfires		VRFSC	Seek grant funding to purchase and install cameras in the Alert Wildfire network and find willing landowners as partners	<a href="https://www.alertwildfire.org/">https://www.alertwildfire.org/</a>
Develop mutually beneficial water storage for fire and livestock/agriculture	Other Mitigation and Preparedness Projects	Will improve county wide firefighting capabilities		VCFD	Work with landowner to catalog and map locations for firefighting water access within the county. Include installation of appropriate fire department hose hookup and required storage stipulations	
Countywide program to replace existing house numbers with reflective markers	Other Mitigation and Preparedness Projects	Improve emergency services effectiveness		VCFD	Seek grant funding to purchase and distribute standardized house numbers for all residents of the county	

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
that meet standards					in need	
Countywide Fine Scale Vegetation Modeling	Other Mitigation and Preparedness Projects	Development of these data for Ventura County would be beneficial to many planning processes within the community and more accurately inform fuel modeling.		VCRC	VRFSC may apply for grant funding develop this dataset.	<a href="https://pacificvegmap.org/">https://pacificvegmap.org/</a>
	Indicates Project added to the Ventura County CWPP Priority Actions List					

## 2022 VCFD Unit Plan Project List

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
3013-1975- PRE-029: FHRP Defensible Space Inspection	Defensible Space	FHRP is a VCFD program with enforceable defensible space standards for community accountability.	Active	VCFD	Can possibly conduct inspections	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2013-FPL- 028: FHRP Road Clearance	Fuels Reduction	FHRP is a VCFD program with enforceable defensible space standards for community accountability.	Active	VCFD	Expanding target acreage/mile age through grant funded work	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2014- PRE-027: Wildland Fire Mitigation & Education Outreach	Community Engagement and Education	This program provides the public with important wildfire preparedness education.	Active	VCFD	Conduct workshops and trainings	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2014-FPL- 026: Neighborhood Chipper Program	Defensible Space	This program removes a major hurdle for homeowners to conduct their own defensible space efforts.	Completed	VCFD	Conduct chipper days Seek funding to expand program	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2011-FPL- 013: Ag ID Cards	Evacuation	This program is designed to provide necessary quick access to sites in an emergency situation.	Active	VCFD	Offer issuance assistance to interested parties	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2013-FPL- 000: Helispots	Evacuation	Increases public safety by creating landing zones	Maintenance	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2009- VMP-032: Hopper Mountain Condor Refuge	Fuels Reduction	Fuels reduction	Maintenance	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2008-FPL- 025: Ojai Last Defense (CDZ)	Fuels Reduction	Fuels reduction	Maintenance	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2008- VMP-030: KFA Project	Fuels Reduction	Fuels reduction	Maintenance	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2011- VMP-001: Reagan Defensible Space	Fuels Reduction	Fuels reduction	Active	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2008- VMP-003: Upper Ojai Wildfire Protection Zone	Fuels Reduction	Fuels reduction	Active	VCFD	Provide community outreach and education	VNC_FIRE_PLAN_2020 (ca.gov)
Haley Project	Fuels Reduction	Fuels reduction	Planning	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)

Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
3013-2010-FPL-002: Matilija TRA			Maintenance	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2012-PRE-015: Central Ventura County Ready, Set, Go! Program	Community Engagement and Education	Emergency Preparedness Planning program with Wildfire Component. Bilingual and a second version for Farmers and Ranchers	Ongoing	VCFD	Promote public use and understanding, link to program	VNC_FIRE_PLAN_2020 (ca.gov)
3013-1974-FPL-024: Fire Roads	Fuels Reduction	Fuels reduction and evacuation for public safety	Maintenance	VCFD	Expanding target acreage/mileage through grant funded work	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2014-OTH-018: Ranch Plans	Evacuation	Equips local ranch owners with information specific to their ranch in a format that can be interpreted by mutual aid fire resources during a wildfire incident.	Ongoing	VCFD	Re-design program and begin public outreach	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2010-VMP-035: Sespe	Fuels Reduction	Fuels reduction	Maintenance	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
Harmon Canyon	Fuels Reduction	Fuels reduction	Planning	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
Living with Fire: Building Resilience in Ventura County	Community Engagement and Education/Defensible Space/Structural Hardening	Program is similar to Home Hardening assessment and education.	Planning	VCFD	Continuing similar program through VRFSC	VNC_FIRE_PLAN_2020 (ca.gov)
Coast Live Oak Mortality	Fuels Reduction	Removes dead fuel from landscape	Planning	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2009-FPL-036: Grubb-Taylor Bridge			Completed	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
Fire in the Classroom	Community Engagement and Education	This program engages school aged youth to prioritize wildfire preparedness early.	Planning	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
0313-2017-FPL-003: Thermal Anomaly			Active	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
0313-2019-FPL-007: Ventura River Arundo Removal	Fuels Reduction	Removes flammable invasive species from ecologically sensitive area.	Active	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
Reducing Wildfire Risk in PIRU	Fuels Reduction	Removes fuels from high priority area	Planning	VCFD	Grant funding for	VNC_FIRE_PLAN_2020 (ca.gov)



Priority Action	Project Type	Benefits to the Community	Project Status	Project Lead	VRFSC Involvement	Link to Program Information
					fuels reduction and public outreach	
Home Ignition Zone Training Bell Canyon	Defensible Space/Structural Hardening	Empowers public to conduct defensible space and home hardening proactively.	Active	VCFD	Grant funding for education and outreach, conducting training	VNC_FIRE_PLAN_2020 (ca.gov)
East Winds Vegetation Management Project	Fuels Reduction	Fuels reduction from high priority areas.	Planning	VCFD	Public outreach and program education	VNC_FIRE_PLAN_2020 (ca.gov)
Community Wildfire Protection Plan Update	Planning	Planning documents to provide public information, engagement, and prioritize projects	Active	VCFD	Grant funding to develop plans, lead author, contracting	VNC_FIRE_PLAN_2020 (ca.gov)
3013-2019-FPL-003: Forest Service Fire Roads	Fuels Reduction	Fuels reduction	Active	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2021-FPL-003: Ventura River Watershed Arundo Removal Project	Fuels Reduction	Fuels reduction	Planning	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
Wildland Tactical Maps	Planning	Improves emergency response	Active	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2019-FPL-004: Ojai Valley Hazardous Fuels Reduction	Fuels Reduction	Fuels reduction	Active	VCFD		VNC_FIRE_PLAN_2020 (ca.gov)
3013-2008-FPL-025: Ojai CDZ (Ojai Last Defense)	Fuels Reduction	Fuels reduction	Active	VCFD	Provide public information	VNC_FIRE_PLAN_2020 (ca.gov)
	Indicates Project added to the Ventura County CWPP Priority Actions List					