

Unit Strategic Fire Plan

CAL FIRE/San Luis Obispo County Fire

May 2016



April 8, 2016

Table of Contents

Table of Contents.....	ii
SIGNATURE PAGE.....	1
EXECUTIVE SUMMARY	2
SECTION I: UNIT OVERVIEW	4
LOCATION.....	4
LAND OWNERSHIP.....	4
POPULATION AND HOUSING	5
FIRE ENVIRONMENT.....	8
VEGETATION / FUELS.....	8
TREE MORTALITY	11
WEATHER	12
TOPOGRAPHY.....	14
FIRE HISTORY.....	15
IGNITION HISTORY	16
UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES	17
SECTION II: COLLABORATION.....	19
COMMUNITY / AGENCIES / FIRE SAFE COUNCILS	19
SECTION III: VALUES	20
VALUES.....	20
FIRE RISK vs. FIRE HAZARD	21
PRIORITY COMMUNITIES	21
PLANNING AREAS.....	22
Planning Area 1 (CAL FIRE – Battalion 1)	22
Planning Area 2 (CAL FIRE – Battalion 2)	22
Planning Area 3 (CAL FIRE – Battalion 3)	22
Planning Area 4 (CAL FIRE – Battalion 4)	22
Planning Area 5 (CAL FIRE – Battalion 5)	22
Planning Area 6 (CAL FIRE – Battalion 6)	22
COMMUNITIES.....	24
SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES.....	26
FIRE PREVENTION.....	26
ENGINEERING & STRUCTURE IGNITABILITY	27
INFORMATION AND EDUCATION.....	30

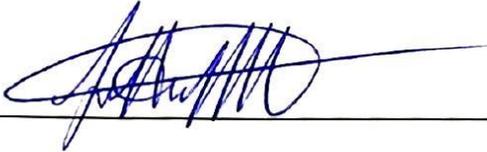
Fire Information and Education	30
VEGETATION MANAGEMENT	31
SECTION V: PRE- FIRE MANAGEMENT TACTICS	36
DIVISION / BATTALION / PROGRAM PLANS	36
PRE-FIRE PLANNING & INTELLIGENCE PROGRAMS	36
PREVENTION PLANNING & ENGINEERING	37
County General Plan	37
County Municipal Code	37
Building Plans Reviews and Inspection Program	37
LAW ENFORCEMENT PROGRAMS	37
Burn Permits Program	38
Cost Recovery Program	38
Inspection Program (LE100)	38
Defensible Space Fuel Treatment Tactics	39
FIRE INFORMATION & EDUCATION PROGRAMS	42
Volunteer in Prevention Program	42
Internet Resources	42
Media Outreach	42
School Programs (K-12th)	43
Public and Special Events Program	43
Printed Material Program	43
Billboard Sign Program	43
HAZARDOUS FUEL REDUCTION	44
APPENDIX A: PRE- FIRE PROJECTS	47
APPENDIX B: UNIT GOALS AND OBJECTIVES	48
PRE-FIRE PLANNING	48
STATUTES AND REGULATIONS	48
FIRE PREVENTION	48
INFORMATION AND EDUCATION	48
LAW ENFORCEMENT	49
APPENDIX C-F:	50
EXHIBITS: MAPS	53
Figure A: Unit Map	53
Figure B: Maps	54
ANNUAL ACCOMPLISHMENTS REPORTING (2015)	63

SIGNATURE PAGE

Unit Strategic Fire Plan developed for San Luis Obispo:

This Plan:

- Identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce the loss of values at risk within the Unit.
- Is intended for use as a planning and assessment tool only. It is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met as necessary.



Unit Chief
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5/3/16

Date



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EXECUTIVE SUMMARY

This CAL FIRE / San Luis Obispo County Unit (CAL FIRE/SLO) Strategic Fire Plan is developed to collaboratively address fire protection planning efforts occurring in the County, to minimize wildfire risk to our County watershed lands, communities, assets, firefighters, and the public. It is developed to work cohesively with the CAL FIRE/ [San Luis Obispo County Fire Department's Service Level Analysis](#), and the [California Fire Plan](#). This Plan presents the County's physical and social characteristics, identifies and evaluates landscape-scale fire hazard variables, utilizes Priority Landscape datasets for evaluating wildfire risk, identifies measures for reducing structural ignitability, and identifies potential fuel reduction projects and techniques for minimizing wildfire risk. This Plan is a living document managed and updated routinely by the CAL FIRE / San Luis Obispo County Fire Department with community and stakeholder input and involvement.

The goal of this Plan is to provide a planning level framework for hazardous fuel assessment and reduction within San Luis Obispo County so that structures and assets are provided additional protection, reducing the potential for wildfire originated ignitions. With consistent goals of improving fire prevention and suppression efforts, reducing hazardous fuels, restoring fire-adapted ecosystems, and promoting community assistance. The goals of this Plan include: improving the availability and use of information regarding hazard and risk assessment; providing guidance for land use planning efforts; promoting a shared vision among communities and multiple fire jurisdictions; establishing fire resistance in communities; prioritizing protection of communities and other high-priority watersheds; promoting collaboration between government agencies and a broad representation of stakeholders; improving fire suppression and prevention capabilities; promoting post fire recovery efforts; and maintaining accountability through performance based monitoring.

The development strategies of this Plan are to create a County that is more resistant and resilient to the damaging effects of catastrophic wildfire, while recognizing fire's beneficial aspects. This Plan utilizes the following strategies to accomplish its goals:

- Collaborate with stakeholders and multiple fire jurisdictions
- Conduct and refine risk assessments for wildland urban interface (WUI) areas
- Develop high hazard wildfire community pre-attack plans
- Foster community involvement in pre-fire planning efforts
- Monitor the effectiveness of programs, projects and initial attack success.

This Plan, with the cooperation of key stakeholders, has been developed with the purpose of meeting the goals set by community stakeholders and the [California Fire Plan](#) while integrating a community input-focused approach. This Plan prioritizes protection of communities, natural resources, and the lives of the public and firefighters. This priority is shared among state and local governments, and other community stakeholders. Collaboration, priority setting, and accountability provide the framework for the guiding tactical principles of this Plan, which include:

- Increase the safety to residents and firefighters during wildland fires
- Reduce the costs and losses associated with wildland fires
- Support implementation of WUI building standards through coordination and cooperation with local government planning departments
- Support the implementation and maintenance of defensible space around structures
- Support project work and planning efforts that encourage the development and/or maintenance of safe ingress and egress routes for emergency incidents
- Promote cooperation between fire agencies in the County to minimize wildland fire damage through strategic fuel treatment projects
- Utilize fire prevention efforts to reduce ignitions within the County

- Conduct post-incident analysis to evaluate success in achieving the 95% threshold of keeping fires less than 10 acres in size
- Promote public education efforts about wildland fire through the support of the San Luis Obispo County Community Fire Safe Council (SLO FSC) and Firewise community activities.

This Plan provides planning information at a County-wide scale and recognizes the variation in fuels, weather, topography, and community/agency priorities present in the County. It is intended to be a dynamic planning tool for promoting wildfire protection efforts in the County while recognizing that localized planning efforts being carried out at the City or Community level shall have priority and authority over the County-level recommendations included in this Plan. Additionally, this Plan is not intended to satisfy the California Environmental Quality Act (CEQA) or regulatory permitting requirements and any recommended projects or actions contained herein shall be subject to the appropriate permitting and environmental review for the jurisdiction in which they are proposed.

*Note: All text in BLUE is hyperlinked to external websites.

SECTION I: UNIT OVERVIEW

This Plan covers [San Luis Obispo County](#), California. This section presents more detailed information about San Luis Obispo County, specifically, a description of factors affecting wildfire risk within the County.

LOCATION

San Luis Obispo County is situated on the Central Coast of California, approximately halfway between San Francisco and Los Angeles. [San Luis Obispo County](#) is bordered by [Monterey County](#) on the north, [Kern County](#) on the east, and [Santa Barbara County](#) on the south. San Luis Obispo County encompasses approximately 3,615 square miles, supports a population of approximately 279,000, and includes seven incorporated cities. Fire protection in the County is provided by numerous agencies, including the California Department of Forestry and Fire Protection (CAL FIRE), the San Luis Obispo County Fire Department, and eighteen local fire departments/districts providing fire protection for incorporated cities, communities, and facilities.



LAND OWNERSHIP

Over 73 percent of the land within San Luis Obispo County is privately owned. Other significant ownership includes United States Forest Service ([USFS](#)) and Bureau of Land Management ([BLM](#)) lands. The Los Padres National Forest ([LPF](#)) covers a large land area in the central and southern portions of the County associated with the [La Panza](#), [Garcia](#), and [Santa Lucia](#) Ranges. BLM lands are concentrated primarily in the southeast portion of the County in the [Carrizo Plains](#) area. The current distribution of land ownership within San Luis Obispo County is presented in Table 1. Also in map display [Figure 1](#).



Table 1: Land Ownership Distribution in San Luis Obispo County

Ownership Agency/Type*	Approximate Acreage	Percentage
California Dept. of Fish and Game	40,706	1.92%
California Dept. of Parks and Recreation	20,085	0.95%
California State Lands Commission	2,238	0.11%
Local Government	22,247	1.05%
Non-Profit Conservancies and Trusts	2,653	0.12%
Other State Lands	4,129	0.19%
Private	1,570,746	73.95%
U.S. Bureau of Land Management	244,202	11.49%
U.S. Dept. of Defense	25,643	1.21%
U.S. Fish and Wildlife Service	2,610	0.12%
U.S. Forest Service	189,039	8.89%

*Source: CalMapper

POPULATION AND HOUSING

The estimated [population](#) of [San Luis Obispo County](#) is 279,083 people within 7 incorporated cities and unincorporated County lands. The County includes approximately 119,143 housing units. The largest population center is the City of San Luis Obispo, with approximately 46,730 people, followed by the cities of Paso Robles (29,793 people) and Atascadero (28,310 people). Table 2 and [Figure 2](#) presents the population distribution in the County within incorporated cities, unincorporated Census-designated places (CDP's), and unincorporated rural portions of the County. [TIGERweb 2010 \(beta\)](#) is a web based application for viewing census based information.

The distribution of the population in San Luis Obispo County creates several different conditions, each of which is unique to pre-fire planning. Urban areas are predominantly built-up environments with little or no exposure to [wildland](#) vegetation ([fuels](#)). The area where urban development abuts non-maintained wildland fuels is known as the [wildland-urban interface](#) (WUI). [Rural](#) areas, as defined in the [NWCG Glossary of Wildland Fire Terminology](#) are "Any area wherein residences and other developments are scattered and intermingled with forest, range, or farm land and native vegetation or cultivated crops". More recently, "wildland-urban intermix" is a term being used to describe WUI areas where the density of housing units and structures is relatively low and the space between consists of wildland fuels capable of propagating fire. While often used interchangeably when discussing WUI issues, the difference between the terms "interface" and "intermix", generally speaking, is that the boundary between rural and urban areas is typically much more distinct when referred to as an "interface". The "interface" boundary is relatively easy to decipher and map, whereas the "intermix" boundary can be several miles wide and is often difficult to map precisely.

Wildland-Urban Interface

[Wildland-Urban Interface](#) areas are those within the "vicinity" of wildland vegetation, typically with housing density exceeding 1 house per 40 acres, but with vegetation covering less than 50% of the parcel. In

Table 2: Communities and Population Distribution in San Luis Obispo County *Source: U.S. Census Bureau 2014

Community*	Population	Percentage
Incorporated Cities		
Arroyo Grande	17,908	6.40%
Atascadero	29,134	10.50%
Paso Robles	31,287	11.05%
Grover Beach	13,505	4.88%
Morro Bay	10,544	3.80%
Pismo Beach	7,931	2.84%
San Luis Obispo	46,730	16.73%
Unincorporated Areas (Census-designated Places)		
Avila Beach	1,627	0.60%
Callender (includes Woodlands)	1,838	0.68%
Cambria	6,032	2.24%
Cayucos	2,592	0.96%
Creston	94	0.03%
Edna (includes Los Ranchos)	1,670	0.62%
Garden Farms	386	0.14%
Lake Nacimiento (includes Oak Shores)	2,748	1.01%
Los Berros	641	0.24%
Los Osos (includes Baywood Park)	14,276	5.29%
Nipomo (includes Blacklake)	17,644	6.54%
Oceano	7,286	2.70%
San Miguel	2,336	0.87%
San Simeon	462	0.17%
Santa Margarita	1,259	0.47%
Shandon	1,295	0.48%
Templeton	7,674	2.85%
Whitley Gardens	285	0.11%
Unincorporated Communities (not Census-designated Places)	47,973	17.79%

addition WUI areas must be within 1.5 miles of an area that has vegetative cover exceeding 75% to ensure that small urban parks are not classified as WUI. The California Fire Alliance (2001) defined "vicinity" as all areas within 1.5 miles (2.4 km) of wildland vegetation, the anticipated distance that firebrands can be carried from a wildland fire to the roof of a house.

The Healthy Forests Restoration Act of 2003 ([HFRA](#)) defines the term "Wildland-Urban Interface" to mean:

- An area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a community wildfire protection plan; or in the case of any area for which a community wildfire protection plan is not in effect—
 - An area extending ½-mile from the boundary of an at-risk community;
 - An area within 1½ miles of the boundary of an at-risk community, including any land that:
 - Has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community;
 - Has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or
 - Is in condition class 3, as documented by the Secretary in the project-specific environmental analysis; and
 - An area that is adjacent to an evacuation route for an at-risk community that the Secretary determines, in cooperation with the at-risk community, requires hazardous fuel reduction to provide safer evacuation from the at-risk community.

The wildland fire risk associated with WUI areas includes propagation of fire throughout WUI communities via house-to-house fire spread, landscaping-to-house fire spread, or ember intrusion. Advantages and disadvantages associated with WUI areas include:

WUI Advantages:

- WUI areas often have community water supply systems
- Many homes can be accessed by a single road
- Emergency equipment can protect multiple assets at once
- Houses usually only exposed to flammable fuels on one side



Figure 1: Wildland Urban Interface

WUI Disadvantages:

- High housing density
- Roads can become congested during emergencies
- Limited options if the community water systems fail

Wildland-Urban Intermix

Wildland-Urban Intermix areas are those where housing and vegetation intermingle. In the Intermix, wildland vegetation is continuous and greater than 50% of the land area is vegetated with combustible fuels. The wildland fire risk associated with Intermix areas includes vegetation-to-house fire spread or ember intrusion. Advantages and disadvantages associated with Intermix areas include:

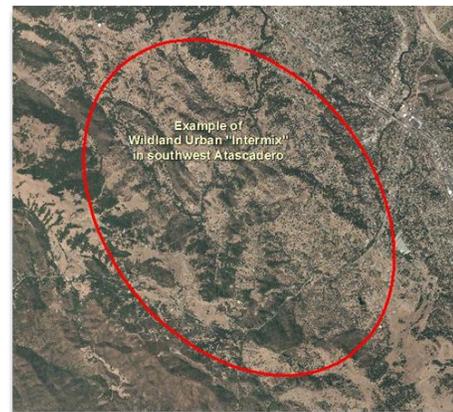


Figure 2: Wildland Urban Intermix

Intermix Advantages:

- Low housing density
- Diversity in water supply systems

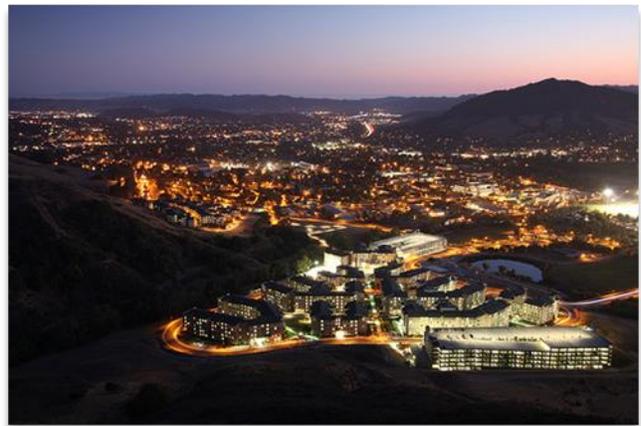
Intermix Disadvantages:

- Increased risk to firefighters
- Emergency equipment can only protect single assets
- Emergency equipment response times can be delayed due to:
 - Rural Roads (single lane, windy, heavy fuel loading)
 - Long Driveways
- Roads can become congested during emergencies
- Diversity in water supply systems
- Houses are surrounded by vegetation

Intermix areas identified within San Luis Obispo County include portions of Cambria, Suey Creek, West Atascadero, and Parkhill.

Population Flux

Another important factor in evaluating the population in San Luis Obispo County is the temporal shift in population density, which has implications for firefighter or emergency response and fire risk reduction project planning. Temporal shifts in population can occur across multiple scales, including daily, weekly, seasonally, or annually. For example, the population at California Polytechnic State University, San Luis Obispo ([Cal Poly](#)) fluctuates on a daily basis



during the academic year with an

increased population of students, faculty, and staff during daytime hours. Additionally, the population at Cal Poly fluctuates on an annual basis, with peak populations occurring during the academic year between September and June and reduced populations during the summer months.

Other areas of the County are subject to population fluctuations at various scales, including an influx of tourists to coastal communities during summer months, increased populations during daytime/work hours in larger urban areas, and increased human presence in wildland areas during the summer months for recreation purposes. Millions of visitors from around the world are drawn to the County due to the combination of consistently mild weather and the variety of recreational opportunities provided by coastal areas and the numerous local, county, state, and federal parks.



Consideration of these temporal effects is important for planning strategic fuels treatment projects intended to protect communities or resources, allocating emergency response personnel, and reducing potential ignition sources.

FIRE ENVIRONMENT

The fire environment is defined as the “surrounding conditions, influences, and modifying forces that determine fire behavior”. The four components that affect fire behavior in this County are fuels, weather, topography, and human behavior. Understanding the relationship between these factors and their influence on fire behavior must be considered in order to plan the most effective strategies for reducing the threat of unwanted fire.

Of the factors listed above, fuels (vegetation, buildings, etc.) are the component that is targeted most often since this factor is the most easily affected. For example, vegetation can be removed or manipulated in ways that will dramatically reduce the fire risk. Homes can be “hardened”, i.e. built with non-combustible or fire-resistant materials and maintained with adequate defensible space.

While the weather cannot be controlled, it is important to understand what types of weather can occur that increase the fire hazard and what options there are for reducing this hazard. An example of this is limiting certain activities including open burning, welding, or mowing when weather conditions are hot and dry.

As with the weather, topography, the [terrain](#) or lay of the land, cannot be significantly altered to reduce the fire hazard. Terrain, however, has a strong influence within the fire environment and should be carefully assessed when designing fire hazard reduction treatments. [Aspect](#) has a strong bearing on the type of vegetation present and the temperature and moisture regime of the soil and vegetation. Slope steepness ([gradient](#)) is important since fire behavior usually increases with steepness. Slope position (ridge, valley, saddle, draw, etc.) should be considered when planning fire prevention measures. For example, additional defensible space may be warranted where slopes are steep and if positioned on a warm southerly aspect and/or within a “chimney” (draw, saddle).

“Full alignment” is a term used to describe the fire environment when all the conditions are conducive for increased fire activity. This occurs when fires burn in heavy fuels, during hot, dry weather with strong winds blowing up steep slopes and draws. Highest priority for fire prevention measures should be focused on areas where these types of conditions are known to occur or are considered likely. Additional discussion on fuels, weather, and topography is below.



VEGETATION / FUELS

Due to the County’s varied climate and geography, there is a diverse population of plants. In fact, the [Central Coast Bioregion](#) is considered one of the most biologically diverse areas in North America and many species are found nowhere else in the world. Plants are categorized as [native](#) (naturally-occurring prior to European settlement, (endemic) or non-native ([introduced](#)) which have been transported into San Luis Obispo County from other regions or ecosystems. All plants and vegetation types have a range of environmental conditions within which they can grow known as “limits of tolerance”. For plants, the [limiting factors](#) that determine the range of a species or plant community are precipitation, temperature, solar radiation, soil structure, elevation, and disturbance regime.

The [California Wildlife Habitat Relationships System \(CWHR\)](#) provides a classification system of existing vegetation types and [hardwood habitats](#) important to wildlife. The CWHR system was developed to recognize and categorize major vegetation types in California at a scale sufficient to predict wildlife-habitat relationships. Table 3 presents the [CWHR](#) vegetation types identified for San Luis Obispo County and includes acreages and percentage cover for the County.

Vegetation (or fuel) plays a major role in fire behavior and shaping fire hazard potential. Vegetation distribution ([Figure 3](#)) throughout the County varies by location and topography, with dramatic differences observed between the eastern, agricultural and ranching portions of the County, and the more mountainous central and southern regions. Current land cover/[surface fuels](#) distribution within the County is characterized by 32 different vegetation types which have been classified into 14 different fuel models ([Figure 4](#)), as presented in Table 4. The most abundant vegetative cover within San Luis Obispo County is herbaceous (46.9%), or annual grassland, distributed primarily in the inland valley and plain areas east of the La Panza, Garcia, and Santa Lucia Ranges. While this fuel type can burn quickly under strong, dry wind patterns, it does not produce the high heat intensity and high flame lengths associated with scrub, chaparral, and forest fuel types. Other significant vegetative cover types include: light brush (16.5%), pine/grass (12.1%), and hardwood/conifer litter (8.3%). These vegetation types are primarily associated with the steeper, upland areas in the La Panza, Garcia, and Santa Lucia Ranges throughout the central portion of the County. Fire behavior in brush fuel types produces higher flame lengths than that in grassland, although spread rates are typically slower. Fire behavior in forests is variable, depending on surface fuel conditions and the presence of ladder fuels.

Table 3. Vegetation Types in San Luis Obispo County

Vegetation Type*	Approximate Acreage	Percentage
Agriculture	120,908	5.69%
Alkali Desert Scrub	32,415	1.53%
Annual Grassland	991,331	46.66%
Barren	6,160	0.29%
Blue Oak Woodland	185,966	8.75%
Blue Oak-Foothill Pine	36,302	1.71%
Chamise-Redshank Chaparral	130,021	6.12%
Closed-Cone Pine-Cypress	3,121	0.15%
Coastal Oak Woodland	188,229	8.86%
Coastal Scrub	88,528	4.17%
Desert Scrub	670	0.03%
Desert Succulent Shrub	245	0.01%
Desert Wash	469	0.02%
Eucalyptus	10	0.00%
Freshwater Emergent Wetland	25	0.00%
Juniper	5,538	0.26%
Lacustrine	59	0.00%
Mixed Chaparral	158,147	7.44%
Montane Hardwood	28,521	1.34%
Montane Hardwood-Conifer	12,528	0.59%
Montane Riparian	252	0.01%
Pinyon-Juniper	5	0.00%
Ponderosa Pine	684	0.03%
Sagebrush	4,747	0.22%
Saline Emergent Wetland	294	0.01%
Unknown Conifer Type	1,240	0.06%
Unknown Shrub Type	44,753	2.11%
Urban	53,659	2.53%
Valley Foothill Riparian	3,264	0.15%
Valley Oak Woodland	11,120	0.52%
Water	15,170	0.71%
Wet Meadow	17	0.00%

*Source: FRAP

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some vegetation types and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (leaf size, branching patterns), and overall fuel loading. For example, the native shrub species that compose chaparral vegetation types present a high potential hazard based on such criteria.

As described, vegetation plays a significant role in fire behavior. A critical factor to consider is the dynamic nature of vegetation types. Fire presence and absence at varying cycles or regimes affects

vegetation type succession. Succession of vegetation types, most notably the gradual conversion of shrublands to grasslands with high fire frequency and grasslands to shrub lands with fire exclusion, is highly dependent on fire regime. Biomass and associated fuel loading will increase over time, assuming that disturbance or fuel reduction efforts are not implemented.

Wildfire disturbances can also have dramatic impacts on plants and plant composition. Heat shock, accumulation of post-fire charred wood, and change in photoperiods due to removal of shrub canopies may all stimulate seed germination. The post-fire response for most species is vegetative reproduction and stimulation of flowering and fruiting. The combustion of aboveground biomass alters seedbeds and temporarily eliminates competition for moisture, nutrients, heat, and light. Species that can rapidly take advantage of the available resources will flourish. It is possible to alter successional pathways for different vegetation types through manual alteration. This concept is a key component in the overall establishment and maintenance of fuel reduction projects.

Table 4: Fuel Model Types in San Luis Obispo County

Fuel Model Number*	Description	Approximate Acreage	Percent Cover
1	Grass	997,984	46.98%
2	Pine/Grass	256,610	12.08%
4	Tall Chaparral	88,290	4.16%
5	Light Brush	349,780	16.46%
6	Intermediate Brush	3,103	0.15%
8	Hardwood/Conifer Litter	176,008	8.29%
9	Medium Conifer	242	0.01%
10	Heavy Conifer Litter w/ Understory	9,630	0.45%
12	Medium Slash	228	0.01%
15	Desert	545	0.03%
28	Urban	19,687	0.93%
97	Agriculture	220,097	10.36%
98	Water	1,726	0.08%
99	Barren	458	0.02%

*Source: FRAP



Figure 3: Fuels Distribution

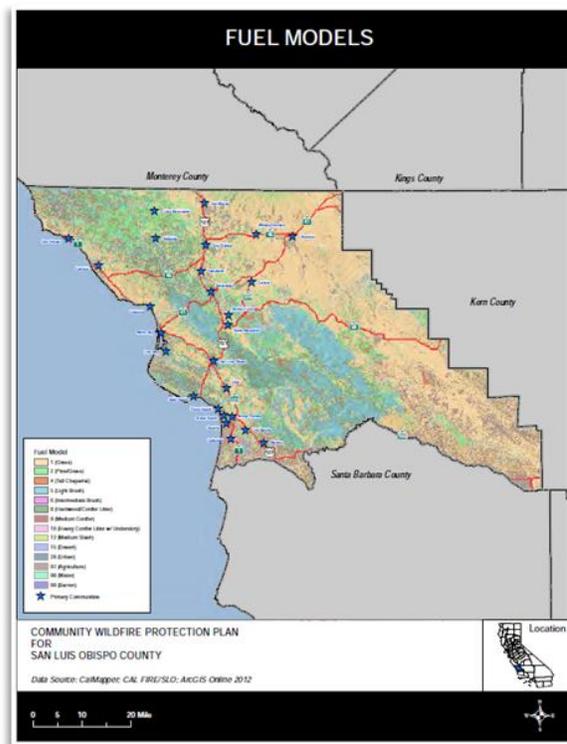


Figure 4: Fuel Model

TREE MORTALITY

The dominating existing woodland habitat in Cambria Village (Planning Area 1) is classified as a Monterey Pine Forest Alliance because over 25% cover in the tree layer consists of Monterey Pine trees (*Pinus radiata*). The native pine forest of Cambria Village is one of three native pine forests left on the U.S. mainland. The Cambria Village Monterey pine forest consists of pine trees that have either reached or are nearing their normal life span of 80 to 100 years. The Cambria stand of native Monterey Pine is on the world list of endangered forests. The highly uneven-aged stand is in very poor condition with a drought driven bark beetle epidemic and areas of Pitch Canker infestation which only have continued to worsen with the drought.

The old growth stands of Monterey pine trees are located along hill sides and residential neighborhoods of Cambria Village. These old growth pine stands are considered extremely hazardous in the case of fire ignition, evacuation, high winds, and the infectious tree disease, Pitch Canker. When a tree is hazardous because of structural weakness this poses a risk to civilians and fire fighters. Trees infested with the drought driven bark beetle epidemic, dwarf mistletoe, western gall rust, invasive species, or with Pitch Canker, a disease that causes die-back of individual pine branches, may result in pre-mature deaths thus posing a risk to the 6,000 civilians of Cambria Village that reside within the infected pine stands. In addition to risks to the civilians, the mortality in the diseased forests also creates an extreme wildfire hazard.



Selective removal of dead, infected, and infested trees compliant with landowner and lease easements will improve overall forest health. A small percentage of woody material will remain onsite after tree removal for natural decomposition or pile burning. Tree removal conducted on the East side of State Highway One will be used for commercial thinning to reduce hazardous fuel, improve forest health, and stimulate wood growth to sequester carbon. Commercial thinning performed may include a portable sawmill that accepts logs and woody debris for further treatment including milling dimensional lumber, fuel pellet production, milling and treating pine fence post, composting/mulching, and shaved wood bedding for local livestock use.



Sudden Oak Death

The moist climate in the Central Coast Region supports the [Sudden Oak Death](#) (SOD) pathogen. Although not currently documented as far south as San Luis Obispo County, many scientists agree that it is likely only a matter of time before this occurs. The [SOD Map](#) is a useful application that produces a Google Earth .kmz file for viewing SOD locations and sample sites. If this fungus spreads into this County, significant numbers of Oaks and other susceptible species

may be damaged or killed. This poses a potentially significant increase in the fire hazard within infected areas due to the increase in the amount of dead fuel available, the loss of tree canopy for shade and wind sheltering, and the likely increase in ground fuels, primarily shrub species that will follow. Aerial monitoring is conducted annually by agencies and universities to monitor the spread of the disease, and research is being conducted to determine potential abatement methods.

Pine Pitch Canker



Primarily affecting Monterey pines (*Pinus radiata*), the disease-causing fungus (*Fusarium subglutinans* f. sp. *Pini*) affects a number of other pine species in the County, including Bishop Pine (*Pinus muricata*). [Pine pitch canker](#) occurs in response to a fungal infection and is characterized by resinous cankers on the trunk, branches or roots accompanied by needle wilt, limb dieback and eventual tree mortality. The fungus is spread through distribution of the fungal spores by contact with infected material and by insect vectors including several species of bark, twig, and cone beetles. The Pitch Canker Action Plan was approved in 1995 under the direction of the [Pitch Canker Task Force](#) and is intended to identify management, research and educational priorities to limit the spread of pine pitch canker in California.

The short-term implication of these forest diseases and other insect infestations in relation to fire prevention and protection is the relatively rapid mortality that occurs, resulting in increased dead fuel loads. Standing dead fuels contribute to increased wildfire hazard and require treatment and/or removal, especially within wildland urban interface areas. Further, care must be taken to avoid transportation of infected tools, chips, and trimmings/plant material into non-infected regions.

WEATHER

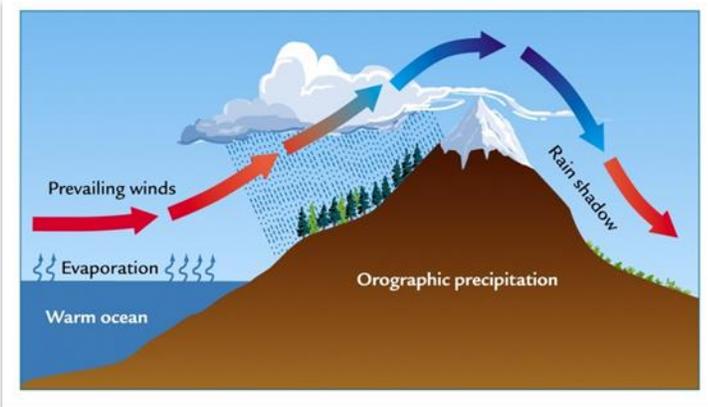
San Luis Obispo County is characterized by a Mediterranean climate with the majority of annual rainfall occurring during the cooler part of the year. However, the County experiences a great diversity in weather conditions ranging from a typically cool, damp condition along the coast in the northern portion of the County to an intensely hot and arid Cuyama Valley in the southeast portion of the County. Primary factors affecting the climate for San Luis Obispo County are the Pacific Ocean along the western edge of the County and the location and alignment of the La Panza, Garcia, Santa Lucia, and Caliente Ranges situated in the central portion of the County.

Terrain contributes significantly to the weather in the County. For example, the terrain in the southern portion of the County can affect intensity of north and east wind events resulting in a foehn wind (Santa Lucia Winds) effect on the coast side of the range. The area east of Nipomo is known by firefighters as an area of sudden wind changes, as the influence of the Pacific Ocean and the inland valleys converge. This area was the location of the tragic Spanish Ranch Fire, which killed 4 CAL FIRE firefighters in 1979, and where two near-tragedies



occurred during the 1997 Logan Fire. A contributing factor on both these fires was “a sudden wind shift”.

The same high pressure inland conditions with a low pressure in the Pacific that produce Santa Ana winds in southern California often produce foehn winds in this County that result in northeasterly off-shore wind conditions which are usually accompanied by warm temperatures, high wind speeds, and low humidities. These periods often produce the most “fire days” along the coast when the fire risk is elevated to the highest point of the entire year.



The La Panza, Garcia, Santa Lucia, and Caliente Ranges intercept a large portion of the rain bearing clouds moving eastward from the Pacific Ocean and therefore have the heaviest precipitation in the County. These ranges also separate the cooler, moister marine-influenced areas from the arid inland areas during much of the summer. Strong, onshore sea breezes are common in the western portions of the County during the summer months as marine air is drawn inland by thermal low pressure. The entire area east of these ranges can be described as arid,

with the driest areas in the southeast portion of the County receiving only 5 to 8 inches of rain annually. Another locally important characteristic affecting weather in the County is the frequency of summer fog along the coast and winter fog in the inland valleys. These two fog conditions augment rainfall and provide moisture for plant growth and affect live and dead fuel moistures.

San Luis Obispo County is broken into two weather zones. Using weather factors such as wind, humidity, and temperature, the two zones are ranked by their frequency of severe fire weather. These areas are ranked as moderate (severe fire weather occurring fewer than 26 days per year), high (severe fire weather occurring between 26 and 46 days per year), and very high (severe fire weather occurring more than 46 days per year). Some areas ranked as ‘very high’ can experience severe fire weather up to 88 days per year. Although weather conditions can reduce the number of days that a devastating fire can occur, all areas of the County regularly are subject to days or “windows” when severe burning conditions exist.

The California National Fuel Moisture Database ([NFMD](#)) is a web-based query system that enables users to view sampled and measured live and dead-fuel moisture information. The database is routinely updated by fuels specialists who monitor, sample, and calculate live fuel moisture data.

Remote Automated Weather Stations

A system of Remote Automated Weather Stations (RAWS) is used to acquire site specific weather data. The RAWS are self-contained weather stations which sample weather on a periodic basis and then transfer this information via satellite to a federal server. This weather data can then be used for emergency responses and project planning. There are currently five stations located within San Luis Obispo County. Three of these stations are owned and maintained by CAL FIRE and two are owned and maintained by the U.S. Forest Service. These stations have been strategically placed to provide coverage for critical fire areas in the County. Station information and real-time weather data such as the [current weather summary for the Los Angeles/Oxnard CWA](#) is available from [MesoWest](#) and [ROMAN](#).



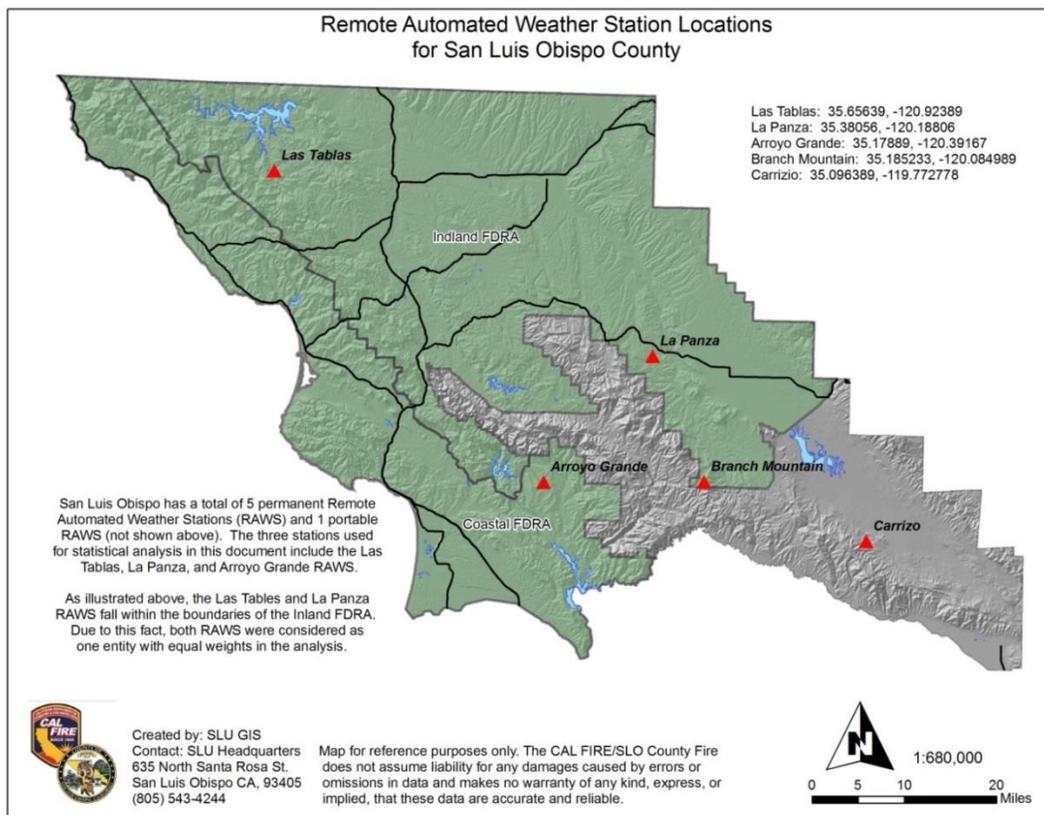


Figure 5: RAWS

TOPOGRAPHY

Topography is essentially the lay of the land and is commonly characterized by measurements of slope, elevation, and aspect. The topography (Figure 6) of San Luis Obispo County is extremely variable and greatly affected by the La Panza, Garcia, and Santa Lucia Ranges situated in the central portion of the County and the Caliente Range in the southeastern portion of the County. Elevations in the County range from sea level along the western boundary of the County up to 5,106 feet above mean sea level (amsl) atop Caliente Peak in the Caliente Range in the southeast corner of the County. The Santa Lucia Range is a dominant topographic feature which extends almost the entire length of the western portion of the County. In the northern portion of the County, the Santa Lucia Range rises sharply up from the Pacific Ocean, while in the southern portion of the County it rises more gradually from the coastline. Another notable topographic feature are the Irish Hills, situated between the communities of Los Osos to the north and Avila Beach to the south.

Elevation affects temperature, humidity, wind speed, and the growing season of vegetation. Aspect affects the amount of solar radiation absorbed by plants. Southern aspects normally receive maximum solar radiation while northern aspects receive the least. Soil and plant moisture contents are the primary factor influenced by solar radiation. As southern aspects receive the most solar radiation, plants on south-facing slopes tend to be more



Figure 6: Topography Example

drought tolerant than those adapted to northern aspects. Slope is the steepness of the land, calculated as the product of the change in elevation (rise) divided by the horizontal distance covered (run). Slope is typically presented in units of percent or degrees. Steeper slopes can have a significant effect on fire behavior as a fire moving uphill can preheat and dry vegetation uphill from it and accelerate the rate of fire spread. The regional topographic conditions within San Luis Obispo County can have considerable effect on wildland fire behavior, as well as on the ability of firefighters to suppress those fires. Steep slopes and canyon alignments are conducive to channeling, deflecting, concentrating, or dispersing winds, and creating extremely erratic wildfire conditions, especially during wind-driven fire events.

FIRE HISTORY

[Fire history](#), is an important component in understanding fire frequency, fire type, significant ignition sources, and vulnerable areas/communities, ([Figure 7](#)). The topography, vegetation, and climatic conditions associated with San Luis Obispo County combine to create a unique situation capable of supporting wildfires. A number of large, damaging wildfires have occurred in the County, notably the Weferling Fire (1960), the Las Pilitas Fire (1985), the Chispa Fire (1989), the Highway 41 (1994), the Highway 58 Fire (1996), and the Logan Fire (1997). The aforementioned fires burned approximately 350,000 acres, destroyed numerous structures, and cost millions of dollars to suppress. The fire with the most significant impact on the County was the Highway 41 Fire, which destroyed 42 residences, caused massive power outages, shut down two major highways for over 24 hours, and destroyed public radio, television, and communication transmission facilities.

Based on historical fire perimeter data ([CalMAPPER](#)), repeated burning is observed within the County primarily in the Santa Lucia Range. Land ownership (US Forest Service) and fuel type (chaparral) appear to be significant factors affecting the geographic distribution of fires in San Luis Obispo County. Grass-dominated lands in the eastern portion of the County exhibit small, well dispersed burn perimeters, while the heavier chaparral fuels in the central-southern portion of the County (Santa Lucia Range) exhibit a repeated burn pattern, larger fire perimeters, and a more



Figure 7: Fire History

concentrated distribution of fire perimeters. The average interval between large wildfires in excess of 20,000 acres burning within San Luis Obispo County is 7.3 years, with intervals as short as 1 year and as long as 17 years. Table 5 presents notable fires burning over 20,000 acres in San Luis Obispo County.

Table 5. Large Fire History in San Luis Obispo County
(Fires Greater than 20,000 acres)

Fire Name*	Year	Approximate Acreage Burned
Avenales Fire	1917	21,242
Un-named Fire	1921	63,909
Un-named Fire	1922	25,637
Machesna Fire	1939	28,313
Pilitas #1 Fire	1950	22,844
Sam Jones Fire	1953	35,455
Big Dalton Fire	1953	67,701
Weferling Fire	1960	51,451
Buckeye Fire	1970	42,307
Las Pilitas Fire	1985	84,271
Highway 41 Fire	1994	50,729
Highway 58 Fire	1996	106,969
Logan Fire	1997	49,490

*Source: CalMapper

IGNITION HISTORY

Ignition data for San Luis Obispo County was analyzed for a 5-year period (2011-2015) to evaluate ignition trends and problems within the County. This dataset includes 852 ignitions and includes an identification of fire cause. Table 6 and [Figure 8](#) present the ignition history for San Luis Obispo County between 2011 and 2015, classified by fire cause.

The 5-year ignition history for San Luis Obispo County identifies trends in ignition type, with the majority of ignition causes classified as Miscellaneous or Undetermined. Vehicle, Equipment use, and Electrical also emerge as significant ignition sources in the County. Spatial

analysis of ignition locations reveals a direct correlation between ignitions and roads/transportation corridors. Specifically, of the 852 ignition points containing a latitude and longitude included in the dataset, approximately 70% are located within 20 feet of any road. Of these ignitions, nearly 29% occur within 20 feet of highways in the County.

High density of ignitions is also observable within and adjacent to urban areas, with notable concentrations observed near the communities of Cambria, Lake Nacimiento, Paso Robles, Atascadero, Los Osos, San Luis Obispo, Avila Beach, Arroyo Grande, and on the Nipomo mesa. This concentration of ignitions in urban areas and along transportation corridors emphasizes the importance of public education and fire prevention activities, including road-side fuel treatments and strategic management of flashy fuels (e.g. grasses) in WUI and Wildland Urban Intermix areas.

Table 6: Ignition History for San Luis Obispo County (2011-2015)

Ignition Cause*	Number	Percentage
Arson	11	1.29%
Campfire	33	3.87%
Debris Burning	40	4.69%
Electrical Power	69	8.10%
Equipment Use	74	8.69%
Lightning	10	1.17%
Miscellaneous	331	38.35%
Playing with Fire	11	1.29%
Railroad	1	0.12%
Smoking	12	1.41%
Undetermined	180	21.13%
Vehicle	80	9.39%

*Source: Crystals Report – Redbook - CAL FIRE/SLO 2015

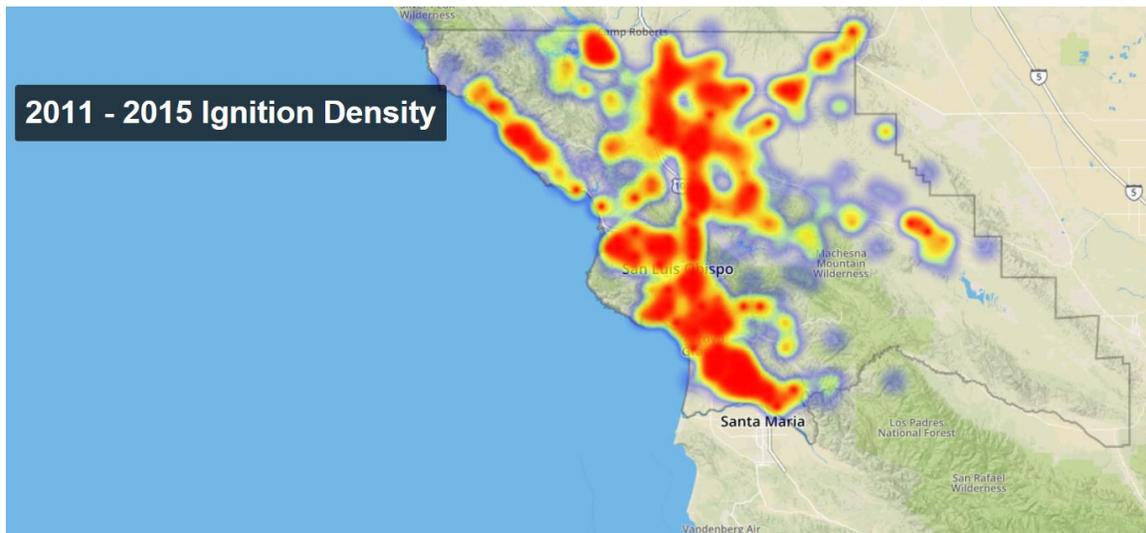


Figure 8: Ignition Density

UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

CAL FIRE / San Luis Obispo Unit puts tremendous effort into maintaining the highest preparedness level possible. This is a priority for each division and program. Each Division works with the intent to accomplish the mission of CAL FIRE and the San Luis Obispo County Fire Department. The fire administration and fire prevention divisions are fulltime functions that assist fire operations division before, during and after an emergency event takes place. Additionally, CAL FIRE / San Luis Obispo Unit presents annual preparation events to assist in maintaining its goal of keeping wildland fires at 10 acres or less. Below is a brief outline of the preparation efforts of each division with in the San Luis Obispo Unit.

Fire Administration Division

Among the many tasks that revolve around managing unit policies, budgets and logistics, Administrative staff also determines and implements staffing levels to achieve the county and state fire mission. Additionally, administrative staff prepare and maintain cooperative fire service agreements and resource response plans, like the Central Coast Operating Plan (CCOP). These plans provide operations the preparedness and depth necessary for mission success.

Fire Operations Division

The operations division provides a professional level of service related to fire control and suppression, rescue, advanced life support/emergency medical assistance, and the mitigation of hazardous materials incidents. In the event of major disasters, we are trained and equipped to handle a countywide incident, including wildland and structural fires, earthquakes, tsunamis, riots, hazardous material incidents, nuclear events, and other major emergencies. In addition to responding to emergency our training, fleet management, and dispatch serve a critical role to our efficiency and preparedness to respond.

Fire Prevention Bureau

Prevention staff spends a majority of their time supporting field mission preparedness and preventing fires. It is divided into four areas; law enforcement & education; planning & engineering; pre-fire planning, and resource management. Each of these are full time staffed and collectively work to support the efforts of operations. Prevention preparation activities include: defensible space inspections, emergency evacuation planning, fire prevention education, incident

intelligence and mapping, implementation of the State Fire Plan, and fire-related law enforcement activities such as arson investigation. Other common projects include fire break construction and fire fuel reduction activities that lessen the risk of wildfire to communities and evacuation routes.



Firefighting Capabilities

The fire service in San Luis Obispo (SLO) County is comprised of a cohesive and cooperative group of 17 agencies as described in this Section. Services are provided by a combination of city, special district, county, state, federal, and private agencies that operate 48 fire stations. These fire agencies have also developed an automatic mutual aid program that provides for the closest fire engine to respond to a new emergency regardless of the jurisdiction. This cooperative fire protection system gives each agency a depth and weight of response to be successful in mitigating both large scale and simultaneous emergency events within the County.

SECTION II: COLLABORATION

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS

Representatives involved in the development of the Unit Strategic Fire Plan are included in the following table. Their organization and title are indicated below:

Plan Development Team:

Organization	Title
CAL FIRE / San Luis Obispo County Fire	Unit Chief
CAL FIRE / San Luis Obispo County Fire	Unit Forester
CAL FIRE / San Luis Obispo County Fire	Pre-Fire Engineer

SECTION III: VALUES

VALUES

CAL FIRE's [Fire and Resource Assessment Program \(FRAP\)](#) prepared the document entitled [California's Forest and Rangelands: 2015 Assessment](#). This document satisfies the 2008 Federal Farm Bill provision that each state conduct an assessment of forest resources, which is intended to identify key issues facing each state and requires the delineation of spatial areas called Priority Landscapes. Priority Landscapes are intended to focus investments and other programs to address issues identified in the assessment. Priority Landscape datasets related to fire include an evaluation of fire risk as related to community water, ecosystem health, forest economics, human infrastructure, range economics, recreation and open space, and wildlife.

The fire/human infrastructure Priority Landscape developed by FRAP represents the convergence of areas with high wildfire threat and human infrastructure assets. Included in this assessment are communities and assets. Community areas include incorporated city boundaries and Census Designated Places for unincorporated communities while assets include residential and commercial structures, major roads, and transmission lines. Wildfire threat is the result of an analysis of fire frequency (likelihood of a given area burning) and potential fire behavior (fire hazard). For purposes of illustration, below are three examples, Fire Threat to Ecosystem Health, Rangeland Fire Threat, and Post Fire Erosion Threat to Community Water.

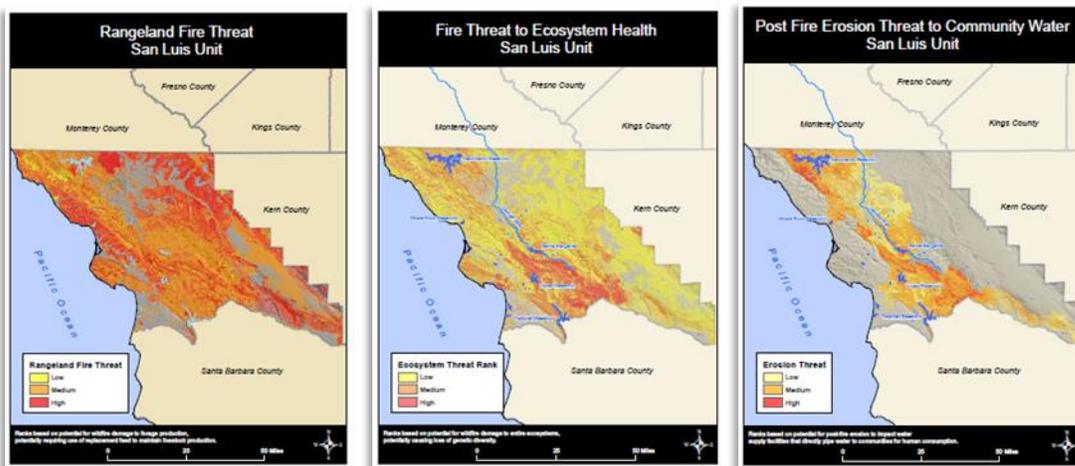


Figure 9: Rangeland Fire Threat

Figure 10: Ecosystem Threat

Figure 11: Post Fire Erosion Threat

Another dominant factor affecting wildfire risk is the prevailing wind pattern in San Luis Obispo County. Specifically, on-shore winds from the northwest routinely pick up in the late morning hours increasing the risk of pushing a fire in a southeast direction if not extinguished by late-morning (approximately 10 am). This condition is observable in the shape of large fire burn perimeters in San Luis Obispo County. For example, prevailing winds contributed significantly to the extent of the 1994 Highway 41 Fire, which originated northwest of the City of San Luis Obispo and burned southwest toward the City of San Luis Obispo and northeast toward the City of Atascadero.

While no large fires are included in the fire history dataset for the Irish Hills area in the County, the potential fire risk in this area is considered high. For example, a fire originating in the Los Osos area or at Diablo Canyon could be pushed by prevailing winds southeast toward the communities of Avila Beach and Pismo Beach. Another area with similar conditions where a large fire is considered likely is the Santa Rita Road area between Highway 41 and Highway 46 due to heavy fuels, prevailing wind patterns and steep terrain.

FIRE RISK vs. FIRE HAZARD

The concept of fire risk vs. fire hazard can be confusing and these terms are often used interchangeably. The purpose of this Plan is to assist fire agencies with development of collaborative methods of reducing the fire ‘risk’ within their jurisdictions by using strategies and tactics that will reduce or eliminate one or more fire ‘hazards’. Examples of fire hazards include dense stands of decadent brush, faulty wiring, broken vehicle exhaust systems, and homes that are not built in accordance with fire code requirements. The fire risk (vulnerability) of a given area constantly rises and falls depending on conditions within the fire environment. Successful implementation of this Plan will result in the meaningful reduction of the fire risk in strategic portions of the County through identification and abatement of important fire hazards.

PRIORITY COMMUNITIES

To evaluate Priority Communities in the State, FRAP analyzed the fire/human infrastructure Priority Landscape dataset in combination with communities that include at least 500 people or 1,000 acres. Communities ranked as medium or high Priority Landscapes (for fire/human infrastructure) constitute Priority Communities. The intent of the Priority Community identification is to provide a way of identifying possible communities for outreach and further strategy development. The Priority Communities dataset was utilized as a starting point for identifying and prioritizing communities in San Luis Obispo County where efforts can be focused to reduce wildfire threat. This dataset was refined based on input from community stakeholders and based on an assessment of fire history, ignition history, land ownership, vegetation/fuel, or terrain.



Priority Communities for San Luis Obispo County are identified in Table 7. Priority Communities are those in which pre-fire management activities, including hazardous fuel reduction and public education, should be focused. This list of communities is based on available fire hazard planning data from FRAP, augmented with a County-scale analysis of fire hazard variables and input from community stakeholders and should be routinely evaluated and updated, as needed.

Table 7: Priority Communities in San Luis Obispo County

Community*	Planning Area
Adelaida	3
Arroyo Grande	2
Atascadero	4
Avila Beach	6
Baywood Park-Los Osos	1
Cambria	1
Lake Nacimiento	3
Nipomo	2
Paso Robles	3
Pismo Beach	6
San Luis Obispo	1
San Miguel	5
Santa Margarita	4
Templeton	3

*Source: CalMapper/FRAP

PLANNING AREAS

For the purposes of this Plan, San Luis Obispo County has been divided into six Planning Areas to facilitate localized pre-fire planning efforts. The following provides a brief description of each Planning Area.

Planning Area 1 (CAL FIRE – Battalion 1)

Planning Area 1 encompasses approximately 300,963 acres and is situated along the Pacific Ocean from the Monterey County Boundary in the north to approximately Point Buchon in the south. Its eastern boundary runs along the ridge of the Santa Lucia Range and extends eastward to the City limits of Atascadero and southward to the boundary of the City of San Luis Obispo. The City of Morro Bay and the community of Cambria are located along the Pacific Ocean in the western portion of the Planning Area. Planning Area 1 includes the Priority Community of Baywood Park-Los Osos. Large fire history in the Planning Area includes the 1960 Weferling Fire and the 1994 Highway 41 Fire.

Planning Area 2 (CAL FIRE – Battalion 2)

Planning Area 2 encompasses approximately 458,830 acres and is situated along the southern boundary of the County, adjacent the Cuyama River. Planning Area 2 stretches the entire length of the County, from Kern County in the east to the Pacific Ocean in the west, and is bisected by the Los Padres National Forest (LPNF) in the central portion of the Planning Area. Its northern boundary runs along the boundary of the LPNF, adjacent the ridge of the Garcia and Caliente Ranges and extends northward to the City limits of San Luis Obispo. Planning Area 2 includes the Priority Community of Nipomo. Large fire history in the Planning Area includes the 1985 Las Pilitas Fire and the 1997 Logan Fire.

Planning Area 3 (CAL FIRE – Battalion 3)

Planning Area 3 encompasses approximately 567,495 acres and is situated along the northern edge of the County generally from the Highway 101 corridor in the east to the ridge of the Santa Lucia Range in the west. Its southern boundary extends roughly north eastward from the City of Atascadero, but excludes the Santa Lucia Range. Planning Area 3 includes the Priority Communities of Adelaida, Lake Nacimiento, and Templeton. Large fire history in the Planning Area includes the 1960 Weferling Fire in the far north western portion of the Planning Area.

Planning Area 4 (CAL FIRE – Battalion 4)

Planning Area 4 encompasses approximately 767,760 acres and is situated in the central portion of the County between Planning Area 3 and 5 to the north and Planning Area 2 to the south and is bisected by the LPNF. Its eastern boundary abuts Kern County, and its western extends up to the City of Atascadero. Planning Area 4 includes the Priority Community of Santa Margarita. Large fire history in the Planning Area includes an un-named fire in 1939, the 1985 Las Pilitas Fire, the 1996 Highway 58 Fire, and the eastern portion of the 1994 Highway 41 Fire.

Planning Area 5 (CAL FIRE – Battalion 5)

Planning Area 5 encompasses approximately 567,495 acres and is the Northeast section of the county which is situated along the upper eastern edge boundary with Kern County through the Bitterwater Valley/Temblor Mountain range (San Andreas Fault line), Northeast boundary with Fresno County and the North boundary with Monterey County. The Western edge of the planning area includes: Camp Roberts, San Miguel, eastern Paso Robles, and eastern Atascadero. The Southern boundary runs along the Rocky Canyon truck trail and heads east just north of Hwy 58 until it reaches the Kern County line again at the Bitterwater Valley Road intersection. Planning Area 5 includes the Priority Communities of Creston, Shandon and Whitley Gardens. There is no Extended Attack/Large fire history in the Planning Area because of the mostly grassland fuel type.

Planning Area 6 (CAL FIRE – Battalion 6)

Planning Area 6 encompasses approximately 29,768 acres and is situated in the Irish Hills along the coast between approximately Point Buchon in the northwest to the eastern-most portion of the City of Pismo Beach in the southeast. Planning Area 6 includes the Priority Communities of Avila Beach and Pismo Beach. Fire history in the Planning Area is limited primarily to a few small fires adjacent Diablo Canyon Nuclear Power Plant.

ASSETS

For the purposes of this Plan, assets are those values that may be at risk from wildfire. Assets in San Luis Obispo County include power generation and transmission facilities, emergency communication facilities, transportation infrastructure, tourist and recreation areas, environmental areas, military installations, natural resource production facilities, and commercial fishing facilities. Table 8 presents the assets in San Luis Obispo County, by Planning Area.

Table 8: Assets in San Luis Obispo County, by Planning Area

Asset	Planning Area
Trains/Rail System	All
Transportation Corridors (Highways 166, 101, 46, 41, and 58)	All
Diablo Canyon Power Lines	1, 2, 6
Communication System/Repeaters	1
ConocoPhillips Oil Refinery	2
Hearst Castle	1
Communication Sites	All
Los Padres FS Botanical Gardens	1
Bishop Peak Recreational Site	1
San Luis Mountain Recreational Site	1
Montana De Oro State Park Campground	1
Whale Rock Reservoir	1
San Simeon State Park	1
San Luis V.O.R.	1
Chorro Regional Park	1
Camp San Luis Obispo (California National Guard)	1
San Luis Obispo County Airport	2
Lopez Lake Recreational Area	2
PG&E High Power Line NW of Atascadero	1, 3, 5
Oak Shores Campground	3
Santa Margarita Lake Recreational Area	4
Upper Highway 229	4, 5
Port San Luis Obispo/Lighthouse	6
Diablo Canyon Nuclear Power Plant	6
Hartford Ocean Pier Complex	6
Gas Lines	1, 2, 6, 4, 5

COMMUNITIES

Communities at Risk (CAR) from potential wildfire were identified at the federal level in the 2001 National Fire Plan (66 Fed. Reg. 753, January 4, 2001), which included only communities that were in the vicinity of federal lands. Recognizing that wildfire risk was not limited to areas near federal lands, CAL FIRE developed a more inclusive list of communities at risk for the State of California, which is managed by the California Fire Alliance. The communities identified in this Plan for San Luis Obispo County were derived from the Geographic Names Information System (**GNIS**) database and evaluated to ensure that all Communities at Risk were accounted for. The GNIS database of communities in the County was then consolidated to represent major communities in the County and historical places were excluded. For example, the community of Cambria includes the GNIS-identified communities of Cambria, Cambria Pines, East Village, Happy Hill, Harmony, Leimert, Lodge Hill, Marine Terrace, Park Hill, Tin City, and West Village.

The communities for San Luis Obispo County are identified in Table 9. In addition, Table 9 identifies which Planning Area the community is within, if it is a Community at Risk (CAR), and if it is an incorporated city.

Table 9. Communities in San Luis Obispo County

Community*	Planning Area	Community at Risk**	Incorporated City
Adelaida	3	X	No
Arroyo Grande	2	X	Yes
Atascadero	4	X	Yes
Avila Beach	6	X	No
Baywood Park-Los Osos	1	X	No
Callender	2		No
Cambria	1	X	No
Cayucos	1	X	No
Creston	5	X	No
Edna	2		No
Garden Farms	4		No
Grover Beach	2		Yes
Lake Nacimiento	3	X	No
Los Berros	2		No
Morro Bay	1	X	Yes
Nipomo	2	X	No
Oceano	2	X	No
Paso Robles	3	X	Yes
Pismo Beach	6	X	Yes
San Luis Obispo	1,2	X	Yes
San Miguel	5	X	No
San Simeon	1		No
Santa Margarita	4	X	No
Shandon	5		No
Templeton	3	X	No
Whitley Gardens	5		No

*Source: CalMapper

**Communities listed as Communities at Risk on the California Fire Alliance website:
http://www.cafirealliance.org/communities_at_risk/communities_at_risk_list

WILDLAND URBAN INTERFACE AREAS (WUI)

Pre-fire planning efforts by CAL FIRE/SLO have identified the following priority WUI areas which would also benefit from fuel reduction or other pre-fire planning efforts intended to minimize ignitions and promote public and firefighter safety. The priority WUI areas are identified by Planning Area.

The information presented in this section is intended to be general in nature and has not been developed for a specific project. Should projects be identified for the purpose of reducing structural ignition or otherwise affecting wildland fire risk potential, evaluation and documentation of environmental effects will be required prior to implementation, which may include CEQA review. Additionally, project-related permits may be required. This level of assessment is typically conducted in the project planning phase once the scope of a project is identified.

Table 10: Planning Areas within San Luis Obispo County

<p>Planning Area 1 (Corresponds with CAL FIRE Battalion 1)</p> <ul style="list-style-type: none"> • Cambria WUI • Cayucos WUI • Laguna West WUI • Los Osos WUI • Morro Bay WUI • Morro Toro WUI • Prefumo Canyon WUI • Ragged Point WUI • San Simeon Acres WUI • Santa Rita WUI 	<p>Planning Area 4 (Corresponds with CAL FIRE Battalion 4)</p> <ul style="list-style-type: none"> • Black Mountain WUI • Garden Farms WUI • Mount Lowe WUI • Parkhill WUI • Pozo WUI • Salinas River Drainage WUI • Tassajara WUI • Wilson Corner WUI
<p>Planning Area 2 (Corresponds with CAL FIRE Battalion 2)</p> <ul style="list-style-type: none"> • Blue Fox WUI • East Arroyo Grande WUI • Edna Valley Foothills WUI • Huasna WUI • Nipomo Hills WUI • Nipomo Mesa/Dale WUI • Ranchita Estates WUI • Reservoir Canyon WUI • Suey Creek WUI • Upper Lopez Canyon WUI • Varian Ranch WUI 	<p>Planning Area 5 (Corresponds with CAL FIRE Battalion 5)</p> <ul style="list-style-type: none"> • Bitterwater/Cholame Valley WUI • Branch/Union Road WUI • Creston WUI • Dresser Ranch WUI • Estrella River Drainage WUI • El Pomar WUI • Ground Squirrel Hollow WUI • Independence Ranch WUI • Jardine WUI • La Panza/Ryan Road WUI • Ranchita Canyon WUI • Shandon WUI • Whitley Gardens WUI • Yosemite Place WUI
<p>Planning Area 3 (Corresponds with CAL FIRE Battalion 3)</p> <ul style="list-style-type: none"> • Asuncion WUI • Bryson\Hesperia WUI • Cal Shasta Boat Club WUI • Christmas Cove WUI • Heritage Ranch WUI • Oak Shores WUI • Rancho Del Largo WUI • Running Deer Ranch WUI • Rural West Paso Robles WUI • South Shore Village • South Templeton/Santa Rita WUI • Tri Counties Boat Club WUI • West Atascadero WUI • Adeladia WUI 	<p>Planning Area 6 (Corresponds with CAL FIRE Battalion 6)</p> <ul style="list-style-type: none"> • Avila Beach WUI • Baron Canyon WUI • Davis Canyon WUI • Pismo Beach WUI • San Luis Obispo Bay Estates WUI • See Canyon WUI • Squire Canyon WUI

SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

FIRE PREVENTION

Pre-fire management as used in this Plan is a collective term that refers to all activities undertaken by county land managers, property owners, agencies and fire departments intended to reduce the risk of wildfire and resulting suppression costs and also to minimize the resulting damage to lives, property, and the environment. This section details the objectives of pre-fire managements two main categories; Fire Prevention and Vegetation Management.

The management strategies included in this section focus on the four efforts of the SLU / CAL FIRE Prevention Bureau; Fire Prevention Planning & Engineering; Fire Law Enforcement and Education, Pre-Fire Planning and Intelligence; Resource Management. The goals identified during the development of this Plan include increasing firefighter and public safety, reducing wildland fire costs and losses, implementing WUI building standards, implementing and maintaining defensible space around structures, supporting pre-fire and emergency planning, promoting inter-agency cooperation, reducing ignitions in the County, and promoting public education about wildfire.

Fire Prevention Planning & Engineering

[Fire Prevention Planning](#) takes into account the best design, construction, and engineering practices for planning fire safe communities and homes. Engineering principles also apply in the safe use of industrial and recreational equipment; as well as event safety and inspections occurring in both county and state jurisdictions. The County Fire Marshal and Engineering Staff recommend and interpret laws and regulations covering wildland fire safety and assist homeowners, landowners, decision-makers, and local government planners in building and rebuilding fire safety into the communities we serve. Below is a brief rundown of the County's fire code.

County Fire Codes

The California Fire Code (CFC) and the California Building Code (CBC) into local ordinance. These regulations have many requirements for the protection of the citizens from WUI fires, including:

- Water requirements
- Minimum access road requirements
- Roofing requirements
- Construction requirements
- Hazard abatement requirements
- Turnaround requirements
- Fire Works Regulation
- Event Inspection and Safety

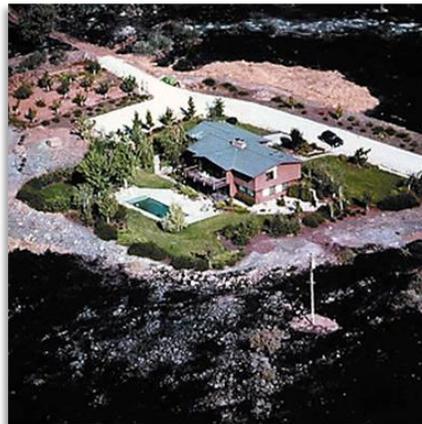
ENGINEERING & STRUCTURE IGNITABILITY

A progressive process typically occurs as a structure is exposed to a wildland fire. First, embers are cast in front of a fire by wind or convection column. In some instances, these ashes retain enough heat and/or flame that secondary ignitions are possible. Following the lighter ash, heavier embers/firebrands with more surface area and mass, and consequently, more heat, are blown in front of advancing flames and often provide sources of additional ignition to structures and vegetation. Finally, intrusion of a flaming front and the associated radiant heat flux can expose combustible material outside of a building and the exterior of the structure itself to various levels of radiant heat. Studies reveal that the actual exposure of a building to a typical wildland flame front by the perimeter of a fire is usually less than six minutes. However, exposure to the other forms of ignition source materials can result in proliferation of secondary ignitions of structures or adjacent vegetation and a longer exposure, depending on wind, topography and fuel conditions.

To enhance structural survivability, the primary focus must include first, providing sufficient measures to prevent the ignition of structural materials from objects (fire brands) that are cast in front of the fire and, second, reducing the likelihood that direct flame impingement will occur and preventing flames from penetrating into the building and resulting in an interior fire. There are considerable problems in achieving these objectives without the benefit of new construction subject to the latest building codes.

All forms of fire protection are classified as either active or passive. Active fire protection includes implementing specific action to control a fire in some manner. Passive fire protection uses resistance to ignition or provides some form of warning that allows other action to be taken. These two classifications of self-defense mechanisms create different problems with regard to being accepted as alternatives for building construction. Furthermore, certain self-defense mechanisms must be incorporated during new construction, and others may only be capable of being added as a retrofit to existing structures. In the absence of ignition resistant construction, the focus for reducing structural ignitability shifts to landscaping and fuel treatment areas.

Many of the residential structures within San Luis Obispo County are not built to current building code standards, which have been implemented statewide and are based on intelligence gained from large wildfire events that included structure loss. It is not realistic to retrofit existing homes with enhanced ignition resistant construction, although the existing code can trigger upgrades to current code requirements for certain home additions. Based on the type of development within the County and the existing fuels and terrain, structural ignition reduction will primarily be realized through implementation of fuel modification as described in this Plan. Standard fuel treatment prescriptions are presented in the following sections. As previously noted, environmental review and permitting may be required prior to project implementation. This should be completed during the project planning phase once the project scope has been identified.



CAL FIRE / San Luis Obispo County Fire understands that in order to be successful at firefighting and incident management, we will need comprehensive and collaborative plans. A tremendous effort is put into these annually. For the purpose of this Plan we will highlight the Plans that have significance to this Plan, and separate them into three categories, community planning, operational planning, and pre-attack planning. By placing the emphasis on what needs to be done long before the incident starts, these plans look to reduce cost and property losses, increase public and firefighter safety, and positively contribute to ecosystem health.

Community Planning

These plans are put together as a guiding document for fuel reduction. We work in collaboration with the community stake holders, SLO FSC and the local fire authority to set the goals. Once the plan is completed, the community typically seeks grant funding to achieve the goals of the plan. Each of these plans has been added as an appendix to the Unit Fire Plan.

[San Luis Obispo County Community Wildfire Protection Plan \(CWPP\)](#) *Draft in progress*
Los Osos 5 Year Wildfire Fire Protection Plan (CWPP)

Operational Planning

Fire Danger Operating Plan

The National Fire Danger Rating System ([NFDRS](#)) is used by fire management agencies to assess the current fire danger at the local level. Using fire danger modeling applications to analyze weather data and past fire occurrences, Fire Danger Operating Plans are developed and used to set preparedness levels and assign appropriate suppression resources based on pre-determined staffing levels and response levels. The most familiar use of this tool is “Smokey Bear Signs” which display the [Adjective Fire Danger Rating](#) for the day.



San Luis Obispo County Fire Service Level Analysis

The purpose of this planning document is to serve as a guide for the Board of Supervisors and other partners in the CAL FIRE/San Luis Obispo County Fire consolidated fire protection program. Paramount in this undertaking is the need to identify proper levels of service for fire protection, make an assessment of the current delivery system and forecast necessary changes to fire protection services. A goal of this plan is to provide a tool for making cost-effective decisions regarding changes in service levels. To achieve that goal, this plan describes and presents data regarding fire protection in the county by using community demographics, service levels, staffing models, governance and funding options. [Strategic Plan \(35M\)](#)

Central Coast Operating Plan

This Operating Plan is required by the California Master Cooperative Wildland Management and Stafford Act Response Agreement between State and Federal Agencies. This Operating Plan provides the officers and employees guidelines and information necessary to properly execute fire suppression within the Central Coast. [Central Coast Operating Plan](#)

Pre-attack Planning

Pre-Attack Plans

CAL FIRE / San Luis Obispo County Fire, through funding from the County Office of Emergency Services and the SLO Fire Safe Council, have been creating localized disaster pre-plans. These plans come in the form of large, printed, foldout maps, (AAA style) which are distributed to engine companies, fire stations and chief officers within the County. These maps were produced through a collaborative effort with communities, Fire Departments, County OES, Law Enforcement, State Parks, and the Cal Poly Internship program. We are currently developing these plans in three categories. Wildland Fire Threat, Evacuation Planning, and Tsunami.

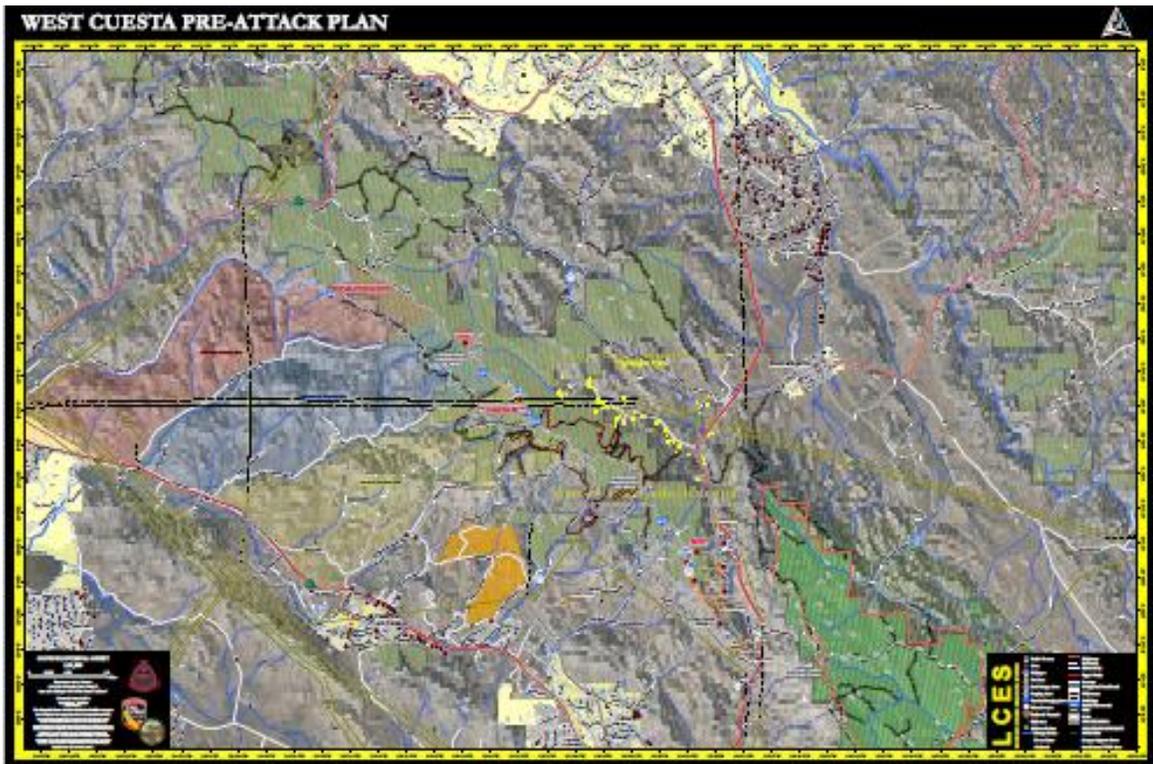


Figure 12: Wildland Fire Pre-Attack Plan

Building Pre-Plans

Each Fire Station is tasked to maintain pre-plans of the high target hazard buildings within their response area. These plans provide first responders with information regarding hazardous materials storage, owner contact numbers, utility shut-off locations, and water supply information. Efforts are being made to store these plans online where incoming units can access them and enhance fire ground awareness prior to arrival to the incident.

INFORMATION AND EDUCATION

Law Enforcement

The primary emphasis of the San Luis Obispo Unit's law enforcement bureau is the enforcement of local and state fire laws as they apply to the missions of CAL FIRE, the State Fire Marshall's Office, and the San Luis Obispo County Fire Department. CAL FIRE's Law Enforcement officers are sworn State Peace Officers under PC 830.2. They are trained and certified in accordance with the California Commission on Peace Officer Standards and Training (POST). The officers are busy year round investigating fire causes, interviewing witnesses, working with juveniles, issuing citations, and setting up surveillance operations.

Arson and negligently caused fires receive priority for law enforcement action, which typically results in criminal or civil proceedings against the responsible person(s). Such proceedings can lead to imprisonment, fines, and fire suppression cost collection. Law enforcement action is a critical fire prevention tool.

Fire Information and Education

Public outreach and education is an important component in community wildfire hazard reduction efforts and is a key component in reducing overall costs and losses attributed to wildland fires. Fire prevention education efforts being implemented by fire agencies in the County are intended to provide the public with fire safety education material so that the community can take an active role in fire prevention efforts. These efforts are detailed in section V and include school programs, parades, fairs, road signs, Smokey Bear programs, and numerous events, exhibits and displays throughout the year. In recent years, the use of internet websites and social media is increasing our ability to provide fire information to a much larger audience more quickly.

Juvenile Fire-Setter Program

The Juvenile Fire-Setter program is managed within the Law Enforcement and Education area. It is an education based diversion program designed to work with juveniles and young adults who have been identified as having a fire-setting behavior pattern. It is designed to break the chain of fire-setting behaviors before a serious incident occurs. It is an alternative to the juvenile justice system, but can work with the justice system.

Civil Cost Recovery Program

Since 1939, when CAL FIRE's [Civil Cost Recovery Program](#) began, the state has recovered more than \$93 million statewide from folks whose wayward fires required suppression, investigation and follow-up by CAL FIRE Law Enforcement.



VEGETATION MANAGEMENT

CAL FIRE / San Luis Obispo County Fire along with private landowners, cooperating agencies, and the County administer numerous programs which support the California Strategic Fire Plan. In the effort to make the vegetation management achievable this Plan has broken Vegetation Management into three strategic categories: defensible space fuel treatment, non-defensible space fuel treatment, and vegetative management prescriptions. Environmental review must be conducted for all pre-fire management activities that could cause either direct or indirect changes to the natural or human environment.

Fuels treatment efforts conducted by CAL FIRE / San Luis Obispo County Fire include the following methods and techniques. A more detailed discussion of these methods and techniques is presented in Section 5 of this Plan (Fuel Treatment Tactics).

<p>Methods:</p> <ul style="list-style-type: none"> • Defensible Space Treatment • Non – Defensible Space Treatment <ul style="list-style-type: none"> ➤ Fuel Breaks ➤ Fire Breaks ➤ Prescribed Burning ➤ Hazard Reduction ➤ Range Improvement ➤ Training Burns ➤ Invasive Weed Control • Ingress/Egress Enhancement <ul style="list-style-type: none"> ➤ Roads ➤ Truck Trails 	<p>Techniques:</p> <ul style="list-style-type: none"> • Mechanical <ul style="list-style-type: none"> ➤ Mowing ➤ Mastication ➤ Piling/Crushing ➤ Plowing/Disking/Harrowing • Manual/Hand Work <ul style="list-style-type: none"> ➤ Cut/Lop/Scatter ➤ Cut/Pile/Burn ➤ Cut/Chip ➤ Pruning ➤ Weedeating • Prescribed Burning <ul style="list-style-type: none"> ➤ Aerial ➤ Ground-based • Prescribed Herbivory <ul style="list-style-type: none"> ➤ Cattle ➤ Goats • Chemical Applications
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ENVIROMENTAL REVIEW

Such projects carried out by or in association with CAL FIRE must be conducted in accordance with policies and procedures established by CAL FIRE's Environmental Protection and Regulations Program ([EPRP](#)). Environmental review will be conducted according to all applicable laws and regulations for all projects proposed under this Plan prior to commencement of any activities that have potential to cause adverse environmental impacts. Environmental review is the responsibility of the Unit Environmental Coordinator

CEQA Review

The California Environmental Quality Act ([CEQA](#)) is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. The statute (Public Resources Code Sections §21000–21177) and guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections §15000–15387) are available from the [California Law Website](#). The [2014 CEQA Handbook](#), an unofficial copy of the statute and guidelines, and the [CEQA Flowchart](#) are useful references for those performing CEQA review to ensure that all work is in accordance with the statute. The CEQA Handbook is provided by the California Environmental Resources Evaluation System ([CERES](#)) which is an information system developed by [The Natural Resources Agency](#) to assist with environmental analysis and planning.

Locally, CAL FIRE has developed a [CEQA flowchart] used for projects where CAL FIRE is the Lead Agency.

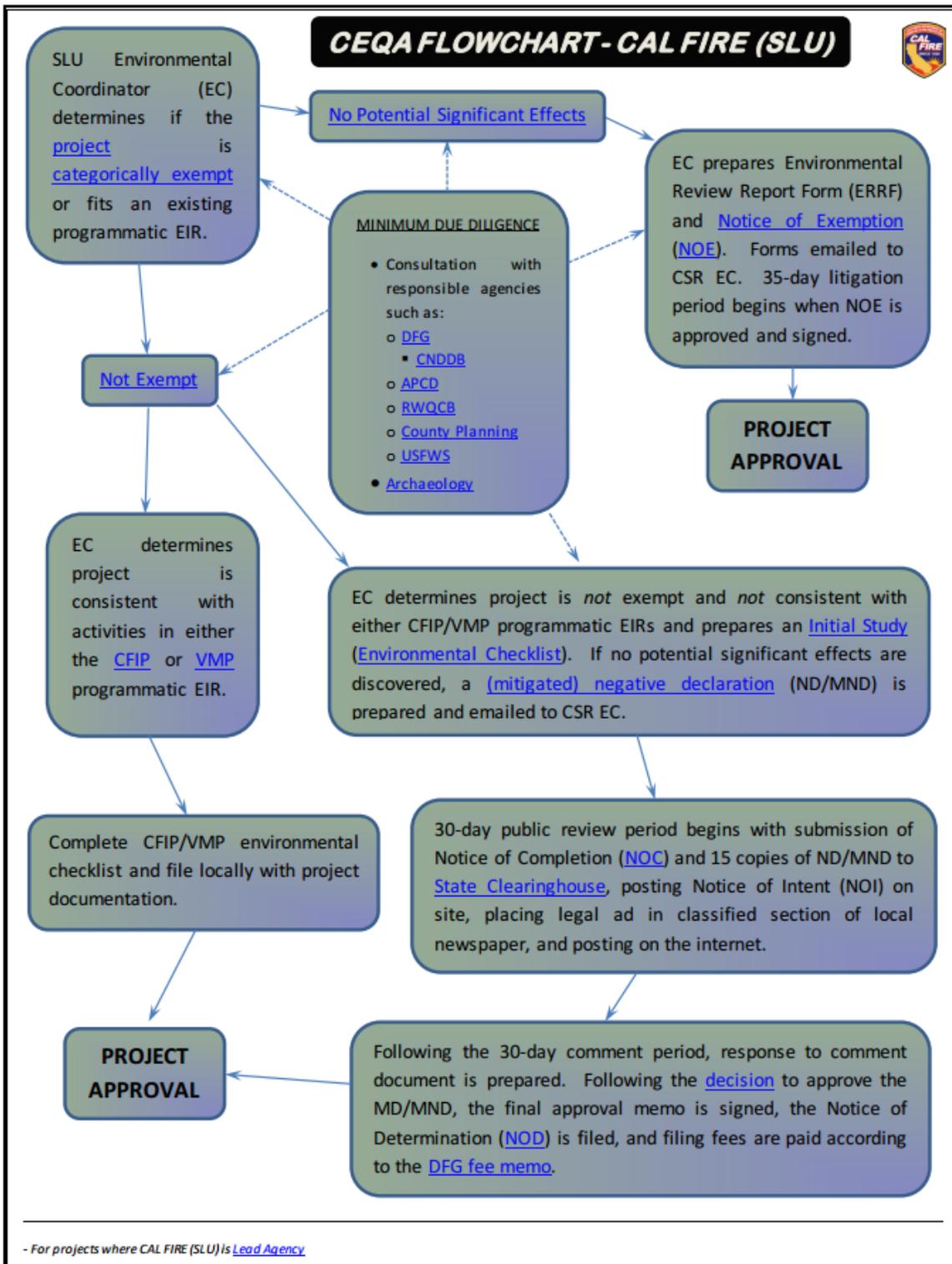


Figure 13: CEQA Flowchart

Programmatic Environmental Impact Reports (PEIR)

As shown in the CEQA flowchart, existing PEIRs can be used to fulfill the required environmental checklist component for projects where the proposed activities are consistent with the environmental analysis performed for the respective PEIR. These environmental checklists may be used as stand-alone support for certain projects; however, this method for conducting environmental review is most commonly used for projects carried out under [CAL FIRE's fuels treatment programs](#) including the California Forest Improvement Program ([CFIP](#)) and the Vegetation Management Program ([VMP](#)).

Agency Involvement

Certain types of activities may require involvement with other local, state, and/or federal agencies. Depending on the location, nature and timing of the proposed project, this can include formal or informal consultation, site visits, and permitting. This most often occurs as part of the CEQA review process. The agencies most frequently involved with pre-fire projects, particularly fuels treatment, are discussed below.

- **San Luis Obispo County Air Pollution Control District (APCD)** - The San Luis Obispo APCD is one of 35 air districts located throughout California responsible for controlling air pollution at the local level. APCD enforces all [local rules and regulations](#) and is the primary agency responsible for achieving clean air standards established by the [California Air Resources Board](#) (ARB) and the [U.S. Environmental Protection Agency](#) (EPA) including the [Bluebook](#) and the [Clean Air Act](#). Pre-fire projects proposing to use [burning](#) will require issuance of a burn permit from APCD. Larger burns, including prescribed burns, are addressed through the [Smoke Management Program](#) which requires preparation of a [Smoke Management Plan](#) (SMP) or submission of an application through the Prescribed Fire Information Reporting System ([PFIRS](#)). [Burn permits](#) are available at several [locations](#) throughout the County.

NOTE: Between the beginning and the end of fire season, [CAL FIRE burn permits](#) are also required.

- **San Luis Obispo County Planning & Building Department** - Pre-fire projects that meet certain criteria may require [permit processing](#) through the [Planning Department](#). Most types of [land use permits](#) are only required in association with construction; however, permits may be required for tree removal, removal of state/federal listed species, or removal of major vegetation within designated environmentally sensitive habitat areas (ESHA) or the [Coastal Zone](#). Early in the planning phase, project proponents are encouraged to consult with [staff](#) to determine permitting requirements. In addition, County Planning provides helpful information including [GIS maps](#), [biological resources](#), [geology](#), [erosion control](#), [archaeology](#), [problematic plants](#), [ordinances](#), [CEQA](#) and a variety of other [information](#).
- **California Department of Fish & Wildlife (CDFW)** - San Luis Obispo County is within [CDFW Central Region #4](#). To determine [CDFW's role in CEQA](#), any type of activity that proposes ground or vegetation disturbance should be discussed early in the CEQA review process with the local DFG biologist or environmental scientist to determine if [CDFW's Environmental Review and Permitting Program](#) is necessary to facilitate completion of the project. Early consultation with the proper [CDFW contact](#) and use of [CDFW data and maps](#) will help ensure that projects are conducted in the most environmentally responsible manner. Once CEQA review is completed, certain documents require payment of [CEQA filing fees](#). Following informal consultation, the two most common situations requiring formal CDFW involvement are:
 - Projects that propose disturbance to plant and/or animal species protected under the California Endangered Species Act ([CESA](#)). Projects where impacts to State-listed species cannot be avoided may require initiation of the [Incidental Take Permit Process](#).
 - Fish and Wildlife Code (Section 1602) requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Where necessary, a permit may be issued according to [CDFW's Lake or Streambed Alteration Program](#).

- **Regional Water Quality Control Board (RWQCB) – Central Coast Region #3** – Large scale projects or those that could potentially impact the waters of the State should be reviewed by local RWQCB staff ([Water Board contacts](#)) to determine if the proposed project should be modified to prevent impacts to water quality. The [Water Boards](#) are responsible to protect California’s waters and staff will provide input, usually through informal consultation, to ensure that projects do not impact water quality and are in accordance with laws and regulations such as the [Porter Cologne Water Quality Control Act](#) and the [Federal Clean Water Act](#).
- **California Coastal Commission (CCC)** – The [California Coastal Act](#) (CCA) serves as a comprehensive planning and regulatory program to manage conservation and development within the California coastal zone. California’s coastal management program is carried out through a partnership between state and [local governments](#). Implementation of Coastal Act policies is accomplished primarily through the preparation of [local coastal programs](#) (LCPs) that are required to be completed by each of the 15 counties and 60 cities located in whole or in part in the coastal zone. San Luis Obispo County and the cities of [Morro Bay](#), [Pismo Beach](#), and [Grover Beach](#) each have certified Local Coastal Programs (LCP) within the [central coast area](#).

Pre-fire projects within the coastal zone that propose “development” as defined by [PRC §30106](#) or occur within an ESHA ([PRC §30107.5](#)) may require issuance of a coastal development permit (CDP) through the LCP having jurisdiction. The coastal planner for each LCP will help determine the appropriate permitting process that must be followed. Typically, the CDP process is initiated near the end or immediately following completion of the CEQA review process.

- **California Department of Transportation (Caltrans)** – Pre-fire projects such as brush removal proposed within the designated right-of-way of a State highway may require the project proponent to obtain an [Encroachment Permit](#) from the [District 5 Encroachment Permit Branch](#). Information on this process is provided in the [Encroachment Permits Manual](#).
- **U.S. Fish & Wildlife Service (USFWS)** – San Luis Obispo County is within the [area of responsibility](#) of the [Ventura F&W Office](#). Pre-fire projects, particularly those funded by federal agencies involving [federally listed plant or animal species](#) or designated [critical habitat](#) may require [consultations with federal agencies](#) to ensure compliance with the [Endangered Species Act](#) (ESA). Consultations most often occur as provided in [ESA section 7](#). For non-federal activities where federally listed species occur, [permits under ESA section 10](#) may be necessary such as an Incidental Take Permit for areas covered by an approved [Habitat Conservation Plan](#) (HCP).

Professional Forester’s Law (PFL)

In California, [PRC §750-783](#) requires that a Registered Professional Forester, commonly known as an RPF and licensed according to [RPF regulations](#), be in charge of all pre-fire projects or activities defined as “forestry” (§753). Per [§757](#), landowners are not subject to the PFL when working on their own property. Forestry, as used here, refers to pre-fire projects that occur on “forested landscapes” ([§754](#)) which is generally considered to be those areas where the canopies of native tree species occupy at least 10% of the landscape. To help determine the role of the RPF for a project, the Board of Forestry & Fire Protection ([BOF](#)) established the [Professional Foresters Registration](#) office to oversee [policy statements](#) and maintain the [RPF roster](#).

[Guidance on the Certified Rangeland Manager \(CRM\) Program](#) describes the types of rangeland management projects that may require the use of a person possessing this specialty certificate. A specialist from the [CRM roster](#) may be able to provide expertise and required oversight on projects in “forested landscapes” where the proposed activities focus specifically on rangeland management objectives.

POST-FIRE

Whenever the Unit experiences significant wildfire events it will require extensive suppression repair activities. The Unit Registered Professional Foresters (RPF's) are trained and experienced in suppression repair. Our Unit forester will work with other state agencies, large landowners, and the community to complete suppression repair efficiently. Additionally, suppression repair activities are completed with future fire prevention in mind.

The Unit has a responsibility to repair damage incurred on the landscape during suppression activities, while at the same time attempt to reduce any increased fire hazard those suppression activities may have created. Unless all fuels are consumed, there is typically fuel loading found adjacent to roads, dozer trails, and structures where fire crews or equipment have modified the landscape for fire suppression. Following control of the fire, the areas of increased fuel loading need to be addressed.



2012 Coon Creek Fire, Re-growth 6 months

SECTION V: PRE- FIRE MANAGEMENT TACTICS

DIVISION / BATTALION / PROGRAM PLANS

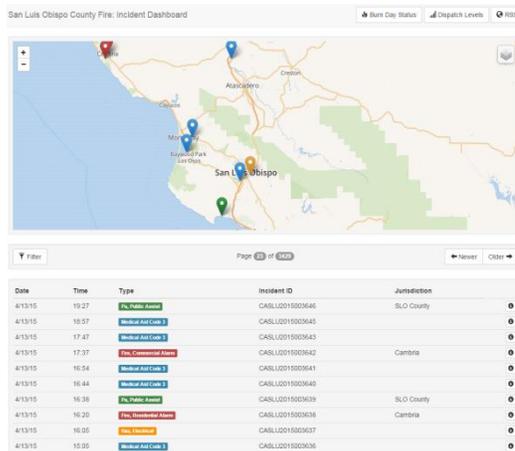
The following pre-fire management tactics are employed by CAL FIRE/SLO though multiple programs that are available to each planning area. These programs can be tailored to meet the needs at a countywide, or community level. These programs are also scalable to meet the needs of the county and communities we serve. Prevention programs are divided into 4 categories; Prevention Planning & Engineering, Law Enforcement & Education, Pre-Fire Planning and Intelligence, and Resource Management

PRE-FIRE PLANNING & INTELLIGENCE PROGRAMS

Geographical Information Systems (GIS)

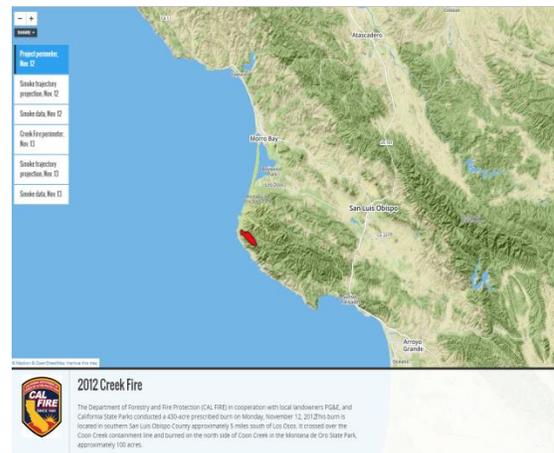
Providing the responding resources and fire officers real-time and accurate fire intelligence is a priority in the CAL FIRE / San Luis Obispo Unit. With the implementation of [mobile data computers \(MDC\)](#) in responding units, pre-attack planning maps of residences and priority WUI areas of the County are available on-scene. These products are increasing our firefighting performance. These are a product of the Geographical Information Systems (GIS) and the efforts of the Pre-Fire Engineer, the County funded Research Analyst I, and the Cal Poly Intern Program.

The primary tactic of providing fire intelligence involves pre-planning for anticipated or expected events or emergencies, and includes evacuation planning, mapping, GIS data management, , and incident pre-attack planning. GIS also give us opportunities to assist firefighters and planners through accurate data that is specific to the fire environment. Water sources, terrain, structures, boundaries, and vegetation landscapes are a few of the priority datasets managed on a countywide scale. When added to live data-products created by the Pre-Fire Planning program increase citizen and firefighter safety, while reducing firefighting suppression costs.



Date	Time	Type	Incident ID	Jurisdiction	
4/13/15	19:27	Fire Public Alarm	CARL02015003646	SLO County	0
4/13/15	18:57	Medical Aid Code 3	CARL02015003645		0
4/13/15	17:47	Medical Aid Code 3	CARL02015003643		0
4/13/15	17:37	Fire Commercial Alarm	CARL02015003642	Cambria	0
4/13/15	16:54	Medical Aid Code 3	CARL02015003641		0
4/13/15	16:44	Medical Aid Code 3	CARL02015003640		0
4/13/15	16:38	Fire Public Alarm	CARL02015003639	SLO County	0
4/13/15	16:20	Fire Residential Alarm	CARL02015003638	Cambria	0
4/13/15	16:05	Fire Firearm	CARL02015003637		0
4/13/15	15:05	Medical Aid Code 3	CARL02015003636		0

Incident Dashboard



Creek Fire Archive

CAL FIRE/San Luis Obispo County Fire routinely prepares, updates, and maintains the following types of pre-fire planning documents:

- [Wildland Fire Pre-Attack Plans](#)
- [Evacuation Plans](#)
- [GIS Mapping](#)

PREVENTION PLANNING & ENGINEERING

County General Plan

The [San Luis Obispo County General Plan and ordinances](#) include provisions for access requirements, housing density, allowable occupancy use, community water system requirements, and property set back requirements. All development being reviewed by San Luis Obispo County Planning Staff is also reviewed by CAL FIRE/San Luis Obispo County Fire to ensure the project is designed within the parameters of the County adopted General Plan. This review ensures the development has secondary access, proper water storage, defensible space around the development, and will use fire safe construction materials prior the subdivision of lands.

County Municipal Code

The San Luis Obispo County Code of Ordinances also includes requirements for fire prevention, included in Title 16. This Code section outlines burning restrictions and vegetation clearance requirements. Title 16 can be found at:

<http://library.municode.com/HTML/16608/level1/TIT16FIPR.html#TOPTITLE>

San Luis Obispo County does not currently have a weed abatement ordinance in place, however if a structure is located within a State Responsibility Area, then PRC 4291 & 4290 is enforced by CAL FIRE/San Luis Obispo County Fire - Law Enforcement division.

Building Plans Reviews and Inspection Program

The CAL FIRE /San Luis Obispo County Fire Marshal's provides plan review and inspection services to all unincorporated areas of San Luis Obispo County in order to implement the fire and life safety regulations and building standards established and adopted by the State Fire Marshal and County Board of Supervisors. In addition, the department performs fire and life safety clearance inspections in State Licensed facilities and is charged with annual inspections of schools, motel/hotels, and apartment buildings as well as regular inspections of public assembly buildings and facilities using or storing acutely hazardous materials. The Fire Marshal also serves as the appointed "County Fire Warden" and is responsible for ensuring that the regulations stipulated in the California Public Resources Code 4290 are applied to new developments and structures in the State Responsibility Areas of San Luis Obispo County.



LAW ENFORCEMENT PROGRAMS

Peace officers from the San Luis Obispo Unit are routinely called upon to conduct arson and fire investigations, work with juvenile fire-starters, perform security functions for special operations and emergency incidents, conduct fireworks enforcement, conduct fire extinguisher investigations, as well as

disposal of seized illegal fireworks. Our Investigators also assist other fire and law enforcement agencies with incident investigations. These peace officers are subject to call statewide.

Due to the complexities of the emergency incidents, the unit's law enforcement component maintains close working relationships with the district attorney's office, law enforcement agencies of all venues, and working task groups such as; gang, juvenile, and narcotics task forces. Additionally, the unit's peace officers can be called upon to perform general law enforcement duties statewide during times of disaster and major emergencies

The CAL FIRE Arson Hotline is maintained by the Department's Sacramento Law Enforcement section, which also processes requests for payment of arson rewards. Rewards of up to \$10,000 are available for information regarding wildland fires within State jurisdiction. Depending on the magnitude of the fire, enhanced rewards of up to \$25,000 or higher may be available.



Burn Permits Program

Where alternative means of vegetation disposal are not feasible, CAL FIRE encourages the safe and prudent use of burning during certain times of the year. Residential debris burning, hazard reduction burning, agricultural burning, development burning, and range improvement burning are commonly used methods that can be effective for removing excess vegetation and reducing the fire hazard.

Burn permits are also required for the following:

- Public or industrial fire-fighting training
- Prevention of a fire hazard that cannot be abated by any other means
- The disposal of agricultural waste as specified by Rule 502. The agricultural waste must be produced and burned on site.
- Levee, ditch and reservoir maintenance, or right-of-way clearing by a public entity or utility.
- Developmental burning when there are no technically feasible alternatives
- Prescribed burning

All burning permits listed above are issued by the Air Pollution Control District. The California Department of Forestry and Fire Prevention (CAL FIRE) also requires a permit for all types of burning during the fire hazard season.

Cost Recovery Program

Since the [Civil Cost Recovery Program](#) began, the state has recovered more than \$93 million statewide from folks whose wayward fires required suppression, investigation, and follow-up by CAL FIRE Law Enforcement.

Inspection Program (LE100)

The hazard reduction inspection program (LE-100) is managed by the Law Enforcement Battalion Chief. Engine companies and Defensible Space Inspectors are responsible for performing inspections within their initial attack areas and are typically performed during spring and summer months. Engine companies are directed to leave an inspection notice at all properties to inform the homeowner there has been an inspection. Engine companies are also instructed to leave notices at residences where access is blocked. During the inspection, engine company personnel review and educate the homeowner on fire prevention requirements. If there are violations, a notice is issued and the homeowner is instructed to mitigate the violation. The engine company then returns for a re-inspection and if the violation is not mitigated, a citation may be issued and/or turned over to fire prevention staff for enforcement. [Wildland Urban Interface Code Information](#)

State Requirements (SRA Lands)

Public Resources Code 4290 – California Code of Regulations (CCR)

CCR Chapter 1, Division 1.5 of Title 14 (PRC 4290) is the statute that requires emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation modification in areas designated as State Responsibility Area (SRA).

Public Resources Code 4291 (PRC 4291)

The State of California Public Resource Code 4291 (PRC 4291) requires owners of property to create defensible space around structures on their property where firefighters can provide protection during a wildfire. PRC 4291 applies to areas of the state within the responsibility area of CAL FIRE (SRA) and includes:

“a building or structure in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material...”

The defensible space distance is measured along the grade from the perimeter or projection of the building or structure. Under PRC 4291, the defensible space distances require up to 100 feet, or to the property limit, whichever is closer; however, the amount of fuel modification necessary may extend beyond 100 feet depending on the flammability of the structure, topography, and fuels. The CAL FIRE Guidelines for Creating Defensible Space as outlined in PRC 4291 can be found here:

http://bofdata.fire.ca.gov/regulations/proposed_rule_packages/defensible_space_2005/429145daynoticeguideline9_15_05.pdf

These fuel reduction techniques should be conducted annually during the early spring and late summer in order to avoid the accumulation of hazardous fuels over time. Finally, the 4291 guidelines are specific to State Responsibility Areas (SRA), but may be applicable in Local Responsibility Areas (LRA), depending on local agency standards.

Defensible Space Fuel Treatment Tactics

The following descriptions of vegetation treatment/hazard reduction operations are provided to promote individual homeowner compliance with PRC 4291. The guidelines, published by CAL FIRE should be reviewed by homeowners. Additionally, Figure 8 presents an illustrated graphic outlining the basics of defensible space creation and maintenance, as published by CAL FIRE. The following guidelines, provided by CAL FIRE, outline two distinct zones: from the structure outward to 30 feet and from 30 to 100 feet from structures (Reduced Fuel Zone):

1. Maintain a firebreak by removing and clearing away all flammable vegetation and other combustible growth within 30 feet of each building or structure, with certain exceptions pursuant to PRC §4291(a). Single specimens of trees or other vegetation may be retained provided they are well-spaced, well-pruned, and create a condition that avoids spread of fire to other vegetation or to a building or structure.
2. Dead and dying woody surface fuels and aerial fuels within the Reduced Fuel Zone shall be removed. Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches, shall be permitted to a depth of 3 inches. This guideline is primarily intended to eliminate trees, bushes, shrubs and surface debris that are completely dead or with substantial amounts of dead branches or leaves/needles that would readily burn.
3. Down logs or stumps anywhere within 100 feet from the building or structure, when embedded in the soil, may be retained when isolated from other vegetation. Occasional (approximately one per acre) standing dead trees (snags) that are well-space from other vegetation and which will not fall on buildings or structures or on roadways/driveways may be retained.
4. Within the Reduced Fuel Zone, one of the following fuel treatments (4a. or 4b.) shall be implemented. Properties with greater fire hazards will require greater clearing treatments. Combinations of the methods may be acceptable under §1299(c) as long as the intent of these guidelines is met.

5. **Reduced Fuel Zone:** In conjunction with General Guidelines 1., 2., and 3., above, minimum clearance between fuels surrounding each building or structure will range from 4 feet to 40 feet in all directions, both horizontally and vertically. Clearance distances between vegetation will depend on the slope, vegetation size, vegetation type (brush, grass, trees), and other fuel characteristics (fuel compaction, chemical content etc.). Properties with greater fire hazards will require greater separation between fuels. For example, properties on steep slopes having large sized vegetation will require greater spacing between individual trees and bushes (see Plant Spacing Guidelines and Case Examples below). Groups of vegetation (numerous plants growing together less than 10 feet in total foliage width) may be treated as a single plant. For example, three individual manzanita plants growing together with a total foliage width of eight feet can be “grouped” and considered as one plant and spaced according to the Plant Spacing Guidelines in this document. Grass generally should not exceed 4 inches in height. However, homeowners may keep grass and other forbs less than 18 inches in height above the ground when these grasses are isolated from other fuels or where necessary to stabilize the soil and prevent erosion. Clearance requirements include:
 - i. Horizontal clearance between aerial fuels, such as the outside edge of the tree crowns or high brush. Horizontal clearance helps stop the spread of fire from one fuel to the next.
 - ii. Vertical clearance between lower limbs of aerial fuels and the nearest surface fuels and grass/weeds. Vertical clearance removes ladder fuels and helps prevent a fire from moving from the shorter fuels to the taller fuels.
- b. To achieve defensible space while retaining a stand of larger trees with a continuous tree canopy apply the following treatments:
 - i. Generally, remove all surface fuels greater than 4 inches in height. Single specimens of trees or other vegetation may be retained provided they are well-spaced, well-pruned, and create a condition that avoids spread of fire to other vegetation or to a building or structure.
 - ii. Remove lower limbs of trees (“prune”) to at least 6 feet up to 15 feet (or the lower 1/3 branches for small trees). Properties with greater fire hazards, such as steeper slopes or more severe fire danger, will require pruning heights in the upper end of this range.

WILDFIRE IS COMING. ARE YOU READY?

Defensible Space Is your property's front line defense against wildfire. Creating and maintaining defensible space around your home can dramatically increase your home's chance of surviving a wildfire and improves the safety of firefighters defending your property. 100 feet of defensible space is required by law.*

CAL FIRE
ONE LESS SPARK
ONE LESS WILDFIRE

*For more information on creating defensible space and legal requirements visit READYFORWILDFIRE.ORG

TWO ZONES MAKE UP THE REQUIRED 100 FEET OF DEFENSIBLE SPACE:

ZONE 1: 30 feet of Lean, Clean & Green

- 1 Remove all dead plants, grass and weeds.
- 2 Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- 3 Keep tree branches 10 feet away from your chimney and other trees.

ZONE 2: 30-100 feet of Reduced Fuel

- 4 Cut or mow annual grass down to a maximum height of 4 inches.
- 5 Create horizontal spacing between shrubs and trees.
- 6 Create vertical spacing between grass, shrubs and trees.

Use Equipment Properly to Keep from Sparking a Wildfire

- 7 Mow before 10 a.m., and never on a hot or windy day. String trimmers are a safer option (vs. lawnmowers) for clearing vegetation.

VERTICAL SPACING
Large trees do not have to be cut and removed as long as all of the plants beneath them are removed. This eliminates a vertical "fire ladder."

HORIZONTAL SPACING
Create horizontal and vertical spacing between plants, the amount of spacing will depend on how steep the slope is and the size of the plants.

Figure 14: Defensible Space Illustration

FIRE INFORMATION & EDUCATION PROGRAMS

Volunteer in Prevention Program

The objectives of the [VIP Program](#) are to involve and utilize citizens and public service groups in non-salaried positions to reduce human-caused fires. Each year our SLU / CAL FIRE VIP's play a vital role to staff public events and assist emergency mitigation efforts. Each year VIP's assist by participating in public education events discussing with homeowners ways to make their homes fire safe. These one-on-one contacts are an increasingly important education tool as the population in California's wildlands continues to grow.



Internet Resources

CAL FIRE / San Luis Obispo County has experienced great success with providing public fire information and education messages through the use of its website and social media outlets.



The website CALFIRESLO.ORG provides a medium in which to provide immediate emergency press releases as well as providing a place for the public to find information. It provides up to the minute Incident location information through the recently developed [incident dashboard](#). It also provides the public and employees with information regarding our building and planning standards, upcoming training opportunities, job postings, and what to do to prepare for an emergency event. This site received over 2,000,000 visits last year and has increased in visits every year since inception.

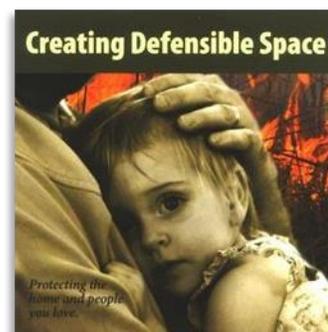
Since 2011 the unit has begun providing public information and incident information through the social media outlet [Twitter](#) and is receiving great feedback from both the public as well as the media.



Media Outreach

Providing the public with information that is accurate and up to date is a great tactic to provide department information as well as fire prevention messages intended to educate the public. The Unit is committed to issuing press releases to San Luis Obispo County media outlets on a regular basis. These releases are typically accompanied by television interviews. They are also published on the CALFIRESLO.ORG website.

Through funding provided by the SLO FSC we are able to distribute the Creating Defensible Space DVD. This DVD is also broadcasts in partnership with Charter Cable thru the On-Demand video selection. Residents can view the Fire Safe produced video for free anytime.



School Programs (K-12th)

Prevention staff, as well as engine companies participates in school programs throughout the year providing life safety, fire prevention, and natural resource protection education. Through the use of [Smokey and Friends](#), and the use of [Teacher Tools](#), we are able to provide an age appropriate, standardized safety message countywide.

Public and Special Events Program

The Unit Participates in numerous events through the year. Ensuring public and firefighter safety at these events requires inspections and at times staffing. At each of these events our prevention staff, Engine Companies, and Volunteers in Prevention (VIP) speak to thousands of people sharing the message of fire prevention. The Mid State Fair, Earth Day, and the San Luis Obispo Farmers Market are just a few of the many public events the Unit participates in annually. We encourage local agencies to participate with us in an effort to provide a broader message promoting fire safety.

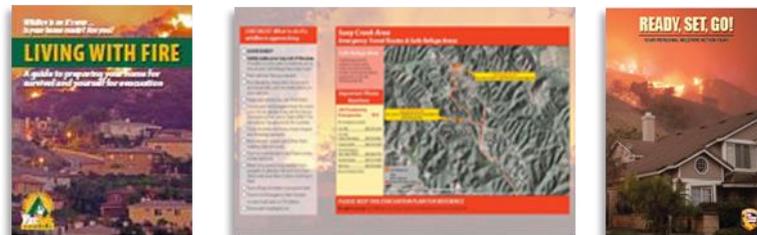


Mid-State Fair - Fire Safe House

The goal of this project is to demonstrate several types of building materials and different techniques you can use to make your home and yard safer in a wildfire.

Printed Material Program

Printed educational materials are available to the public at every fire station and online. Through funding from the SLO Fire Safe council we are able to distribute the 'Living with Fire' brochure that gives citizens the information on home preparation, Evacuation Plans that illustrate where evacuation routes are and where pre-determined safety areas exist along that route. While, 'Ready, Set, Go!' brochures assist residents with evacuation planning.



Billboard Sign Program

A system of thirty billboard signs are strategically placed at ingress and egress points throughout San Luis Obispo County. These signs target community fire education topics of creating defensible space, home preparations and the newly created 'Ready, Set, Go!' program. Sign topics are created through the use of the ten year Unit ignition history and then placed in "at risk" communities within CAL FIRE's jurisdiction.



HAZARDOUS FUEL REDUCTION

The following fuel treatment prescription tactics are provided as potential options for reducing vegetative fuel hazards in defensible and non-defensible space fuel treatment areas:

- **Vegetation Thinning:** Thinning of vegetation involves an overall reduction of woody biomass to break up the horizontal and vertical continuity of fuels. In defensible space areas, thinning efforts should adhere to the minimum distances stated in PRC 4291. Site specific conditions should dictate thinning percentages in relation to structures and will be heavily dependent on topography, vegetation type, and building construction characteristics. In cases where shrubs and/or trees require removal, root systems should be left intact where needed to maintain slope stability. In such cases, annual treatment of stump growth or re-sprouting may be needed to maintain reduced fuel load volumes.
- **Tree Removal:** Removal of trees within the WUI should focus primarily on removing dead and dying trees, however live tree removal may be necessary to improve vegetation spacing and reduce overall fuel continuity. All fuel treatment operations should comply with the criteria set forth in the California Public Resource Code 4291. Tree removal may require oversight by a Registered Professional Forester (RPF).
- **Dead/Dying Plant Removal:** Removal of dead and dying plant material from the WUI will help reduce low fuel moisture biomass. This practice should also be conducted in combination with vegetation thinning efforts and may help reach or completely satisfy thinning objectives in some areas. Within the WUI, the goal is to reduce flame length to less than 4 feet.
- **Exotic/Invasive Plant Removal:** Removal of non-native and invasive plants from the WUI defensible space zone will help reduce the presence of undesirable species and enhance thinning efforts aimed at reducing overall biomass levels. The San Luis Obispo County [Weed Management Area \(WMA\)](#) is focused on limiting the negative effects of invasive plants in the County and maintains a list of exotic and invasive species¹.

The intent of these descriptions is to detail vegetation treatment actions aimed at reducing fire spread rates and heat intensity, while providing defensible space for fire suppression efforts. Although these treatment descriptions are aimed at reducing current fuel volumes and creating both vertical and horizontal separation between vegetation groups, long-term maintenance of the landscape within the WUI should adhere to the vegetation spacing, fuel volume reduction, and vegetation clearance recommendations contained herein.

Fuel Treatment Tactics

In addition to defensible space treatments required under PRC 4291, other fuel treatment projects in the County may be desirable to reduce overall wildfire threat to a community or asset. Such projects may occur on private or public land and are intended to act as a buffer between communities and/or assets and non-maintained wildland fuels. Non-defensible space treatments may include the following treatments:

- **Fuel Breaks:** intended to modify fire behavior and spread by altering fuel beds in a linear alignment, typically situated along ridge tops and may include retained trees (shaded fuel breaks).
Fire Break: Is any non-combustible fire barriers either natural or manmade. (e.g. lake, game trail, road).

¹ http://www.slocounty.ca.gov/agcomm/Weed_Control/SLO_County_s_Weed_Management_Area.htm

- Road-side Fuel Treatments: intended to reduce the likelihood of ignition sources along roadways and maintain access/egress capabilities.
- Defensible Space: Fuel reduction around improvements, structures and critical infrastructure.
- Fuel Reduction: intended to modify fire behavior by treating fuels over large areas in strategic locations or historic fire corridors; typically conducted on large expanses of federal or private land (e.g. Strategically Placed Area Treatments).
- Tree and Shrub Pruning: Trees or large tree-form shrubs (reaching 4 feet or taller at maturity) that are to be retained in the WUI defensible space zone should be trimmed or pruned to reduce both vertical and horizontal fuel continuity:
- Vertical Separation: Pruning of vegetation off the ground should provide vertical clearance that measures 3 times the height of the understory vegetation or 10 feet, whichever is higher. Vertical separation serves to minimize the potential for a ground fire to transition to a crown fire. This process will remove ladder fuels and reduce the potential for fire spread from lower shrubs to higher trees and structures.
- Horizontal Separation: Pruning of vegetation shall result in horizontal clearance that measures three times the height of the plant material height or 20 feet, whichever is greater. Horizontal separation serves to minimize fire spread from plant to plant and from plant to structure.
- Vegetation Grouping: Maintaining groups of shrubs is recommended to provide a mosaic pattern in the landscape. However, shrub groups should be separated from other shrub groups according to the horizontal separation criteria discussed above.
- Mowing: Mowing of native, non-native grasses and exotic weeds should be conducted to maintain grass heights at 4 inches or lower. Focus should be primarily on invasive weed prevention, suppression and monitoring; and properly timed and implemented grassland management (e.g. mowing, grazing) that promotes the establishment of less volatile native perennial grasses. Mowing should take place before 10 a.m. to reduce the risk of wildfire resulting from mowing activities.
- Chipping: Chipping and spreading of existing dead biomass or that resulting from fuel reduction efforts within the WUI is an effective method for weed suppression. However, chip or mulch depth should not exceed 6 inches.
- Grazing: Livestock (including goats) have proven to be an effective method for reducing fuel volumes in wildland-urban interface areas. Management, maintenance, public safety, and environmental permitting issues should be considered prior to use.
- Mastication: Mastication is the operation of reducing vegetation volume by grinding, shredding or chopping material. This treatment can lower fuel bed depth, raise crown base height, increase fuel-ground contact to promote decomposition, and generate more fine materials.
- Vegetation Clearance from Structures: All vegetation should be trimmed such that a minimum clearance of 10 feet exists between structures and exposed wildland vegetation. In cases where vegetation is planted within 10 feet of a structure (vines, shrubs), such vegetation should be maintained free of dead material and shall be pruned and maintained to reduce overall fuel volume. In cases where tree canopies extend over roof tops, 10 feet of clearance should be maintained between the roof and the lowest tree branch extending over the structure. Any tree adjacent to or overhanging a structure should be maintained free of dead or dying wood (PRC 4291 (d)). Firewood or other combustible material should not be stored within 15 feet of existing structures. All combustible material, including tree leaves, pine needles, branches, and twigs should be removed from roofs and rain gutters (PRC 4291 (e)). All vegetation should be trimmed such that a clearance of 10 feet exists in all directions between landscape vegetation and the outlet of a chimney or stovepipe (PRC 4291 (c)). All vegetation should be trimmed such that a 10 foot wide clearance exists along both sides of a structure, from the street to the rear of the

property to promote firefighter access/egress. In cases where property setback widths are less than 10 feet, the entire width should be maintained free of obstructing vegetation.

- Prescribed Burning Program: This management technique is currently employed by CAL FIRE by trained professionals. Prescribed burning may be conducted by private landowners under permit from CAL FIRE, or under contract with CAL FIRE under the statewide Vegetation Management Program (VMP). More information about the statewide VMP is available at: http://www.fire.ca.gov/resource_mgt/resource_mgt_vegetation.php.



APPENDIX B: UNIT GOALS AND OBJECTIVES

The following recommendations have been developed based on stakeholder input and are intended to facilitate multi-agency cooperation for fire protection planning efforts in San Luis Obispo County:

PRE-FIRE PLANNING

- Continue to maintain and update Countywide GIS datasets relevant to pre-fire planning.
- Maintain and strengthen coordination between fire agencies in the County to integrate GIS fire-related datasets.
- Routinely update pre-fire and emergency plans, maps, and documents.
- Identify operational/response planning needs (e.g. wildfire response plans, evacuation areas, evacuation routes, shelter locations, fire equipment staging areas, control objectives, significant environmental areas, etc.).
- The cumulative effects of large scale special events and increased commercial operations within county and state jurisdictions place challenges upon CAL FIRE/County Fire's ability to provide emergency services within rural areas. Increasing winter staffing would assist to provide the needed protection.
- Maintenance of water purveyors in the county to determine which are available to provide water for firefighting operations.

STATUTES AND REGULATIONS

- Standardize fuel reduction and weed abatement ordinances in the County to reduce confusion and streamline enforcement.
- Identify alternative inspection approaches to increase the quantity or properties inspected each year.
- Coordinate with County and local government staff to integrate Fire-wise approaches into planning documents and ordinances.
- Continue to support community prevention programs that encourage property owner compliance with vegetation management requirements.
- Identify funding sources and opportunities for enforcement of regulations.

FIRE PREVENTION

- Implement and maintain vegetation management projects along highly traveled roadways throughout the County to minimize ignitions.
- Identify funding sources and opportunities for enforcement of regulations.
- Identify acceptable metrics of performance related to :
 - Quantity of homes in the WUI with need for roof and/or window retrofits
 - Quantity of defensible space inspections to be performed annually
 - Quantity of tons/area of fuel reduction treatments annually
 - Quantity of citizens participating in the planning process
- Implement vegetation management treatments and ignition reduction projects in priority WUI areas in the County.
- Identify likely ignition areas, even if outside the WUI, where fuel treatment or other efforts (e.g. roadside ignition mats, replacement of flashy fuels with woody vegetation) can be employed to minimize ignition potential.

INFORMATION AND EDUCATION

- Continue inter-agency coordination with the SLOFSC to maintain a community presence and provide a resource for distributing public information regarding fuel reduction efforts throughout the County.
- Provide a public copy of this Plan online and post information about future updates to solicit public input into the planning process.
- Make specific pre-fire project descriptions available to the public.

- Provide and maintain an online list of local fuel reduction contractors and consultants.
- Develop printed educational materials for distribution.
- Conduct public outreach/education in communities where fuel reduction projects are proposed prior to initiation of work.
- Develop strategic partnerships and funding opportunities with local industry to support fuel reduction projects.

LAW ENFORCEMENT

- Seek funding sources for additional law enforcement officers and investigators.
- Seek funding sources for required personal protection equipment replacement, vehicle upgrades, and law enforcement equipment.
- Develop and improve our partnerships with other law enforcement agencies to provide additional training opportunities.
- Develop new partnerships to provide permanent funding for the County's Fourth of July fireworks enforcement operation to remove some of the financial burden from the state.
- Work with the District Attorney's office and the courts to ensure fireworks violators pay the costs of the disposal of sized illegal fireworks.
- Seek community partnerships and funding sources to develop and deliver CAL FIRE's fire safe message to all schools in the county.
- Develop strategic partnerships and funding opportunities with local industry to support the overall fire safety message.
- Conduct public outreach/education in communities where fire violations are frequent.
- Seek opportunities for additional training in working with Juvenile fire-starters.

APPENDIX C-F:

APPENDIX C:

SAN LUIS OBISPO COUNTY (CWPP)

This [Community Wildfire Protection Plan \(CWPP\)](#) covers San Luis Obispo County, California and was developed to collaboratively address fire protection planning efforts occurring in the County to minimize wildfire risk to communities, assets, firefighters, and the public. This Plan presents the County's physical and social characteristics, identifies and evaluates landscape-scale fire hazard variables, utilizes Priority Landscape datasets for evaluating wildfire risk, identifies measures for reducing structural ignitability, and identifies potential fuel reduction projects and techniques for minimizing wildfire risk. The goal of this Plan is to provide a planning-level framework for hazardous fuel assessment and reduction within San Luis Obispo County so that structures and assets are provided additional protection- reducing the potential for wildfire-originated ignitions. This Plan is intended to be a living document managed and updated routinely by the San Luis Obispo County Fire Department with community and stakeholder input and involvement.

Development of this Plan was also intended to support the vision, goals, and objectives of the California Fire Plan, thereby creating a cohesive document which integrates the community focused nature of a CWPP while simultaneously functioning as the CAL FIRE Unit Strategic Fire Plan, which also seeks to create a state that is more resistant and resilient to the damaging effects of catastrophic wildfire while recognizing fire's beneficial aspects. With consistent goals of improving fire prevention and suppression efforts, reducing hazardous fuels, restoring fire-adapted ecosystems, and promoting community assistance, integrating these two plans was a logical step for fire planning efforts in San Luis Obispo County. The goals of this Plan include: improving the availability and use of information regarding hazard and risk assessment; providing guidance for land use planning efforts; promoting a shared vision among communities and multiple fire jurisdictions; establishing fire resistance in communities; prioritizing protection of communities and other high-priority watersheds; promoting collaboration between government agencies and a broad representation of stakeholders; improving fire suppression and prevention capabilities; promoting post-fire recovery efforts; and maintaining accountability through performance-based monitoring. This Plan utilizes the following strategies to accomplish its goals:

- Collaborate with stakeholders and multiple fire jurisdictions.
- Conduct and refine risk assessments for wildland urban interface (WUI) areas.
- Develop high-hazard wildfire community pre-attack plans.
- Foster community involvement in pre-fire planning efforts.
- Monitor the effectiveness of programs, projects and initial attack success.

APPENDIX D:

FIRE DANGER OPERATING PLAN

This plan is designed to help guide the application of the National Fire Danger Rating System (NFDRS) at the unit level. It will provide a framework for consistent thought process to apply the Fire Danger Operating Plan for San Luis Obispo County for agency administrators, fire managers, dispatchers, agency coordinators, and firefighters using accurate and effective scientific methods and historical fire and weather data. Management decisions dealing with dispatch levels and staffing levels will be assessed based on vegetation, climate, and topography in conjunction with NFDRS modeling.

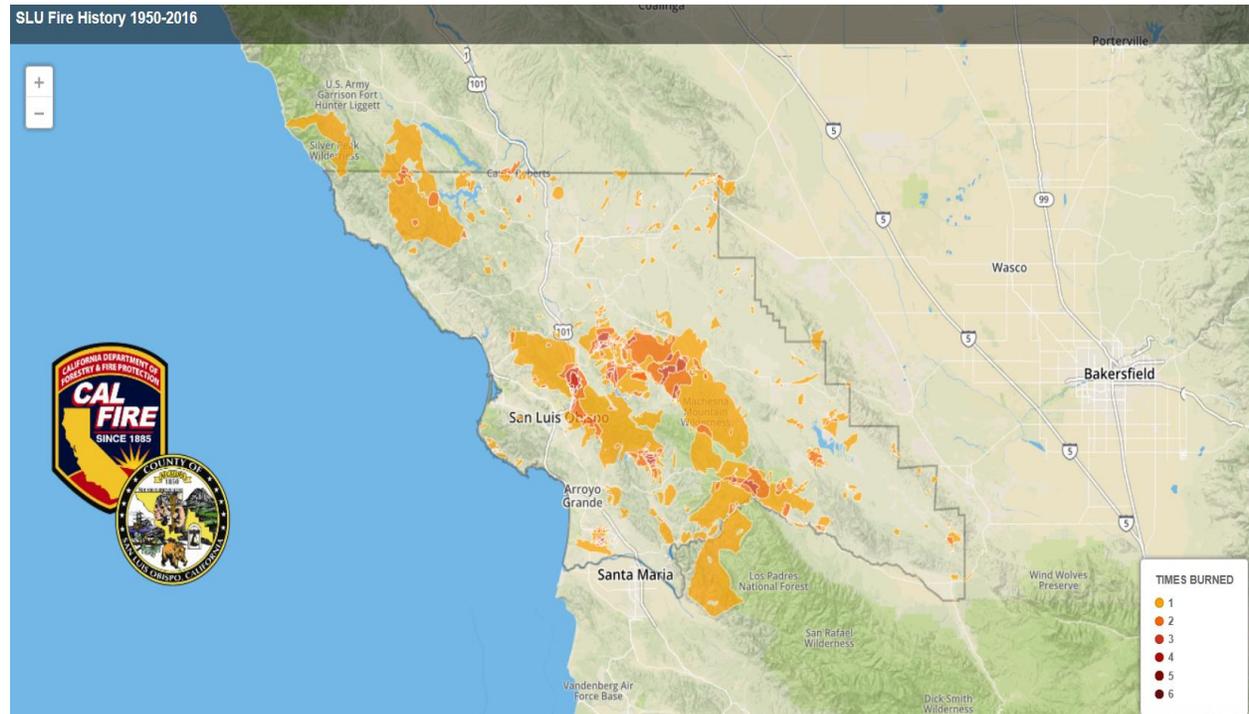
This operating plan is for San Luis Obispo County, which encompasses two fire danger rating areas including the Coastal FDRA and the Inland FDRA. These two geographic regions are our focus of study because each is composed of a unique combination of fuels, climate, and topography.

This plan offers decision support and helps in quantifying elements that establish agency planning and response levels. Additionally, procedures for developing seasonal risk analysis and fire severity trigger points are outlined with the implementation and analysis process of this plan.

<http://calfireslo.org/>

APPENDIX E:

FIRE HISTORY



APPENDIX F:

IGNITIONS

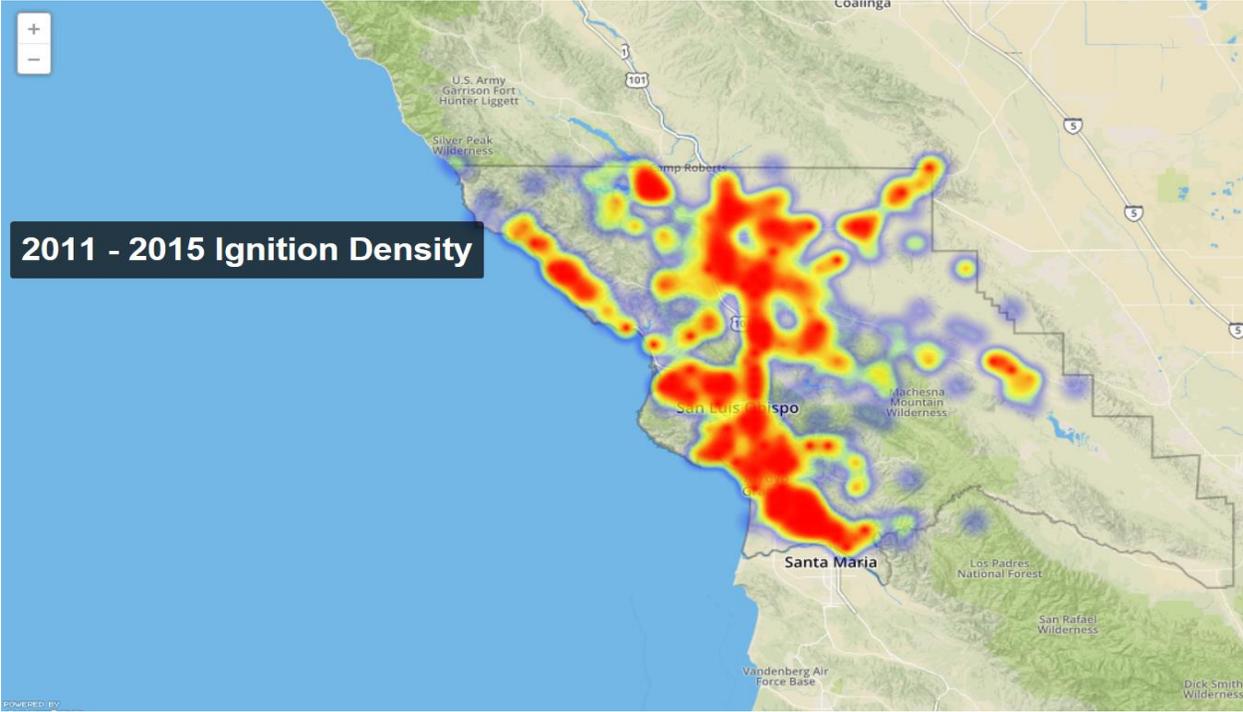
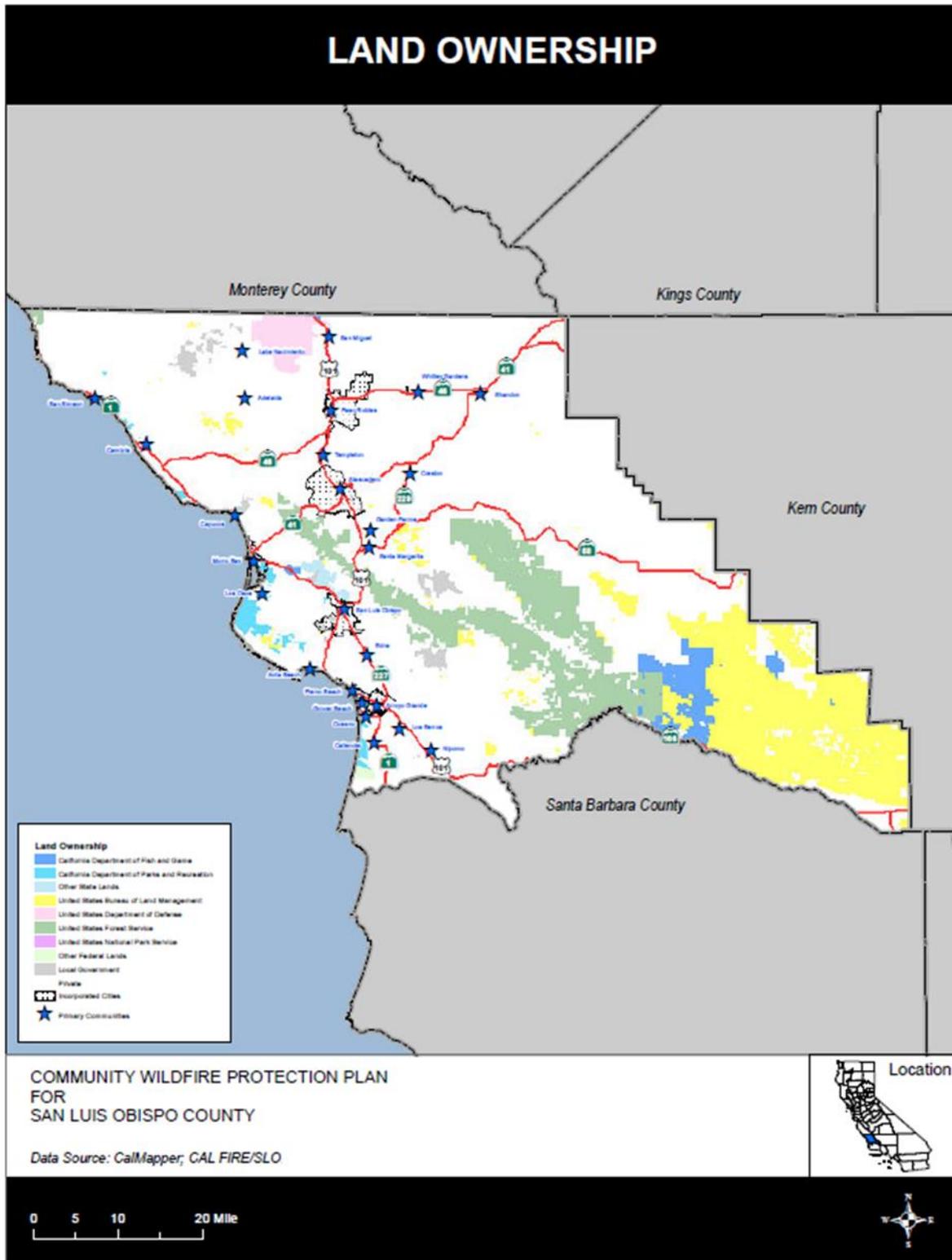
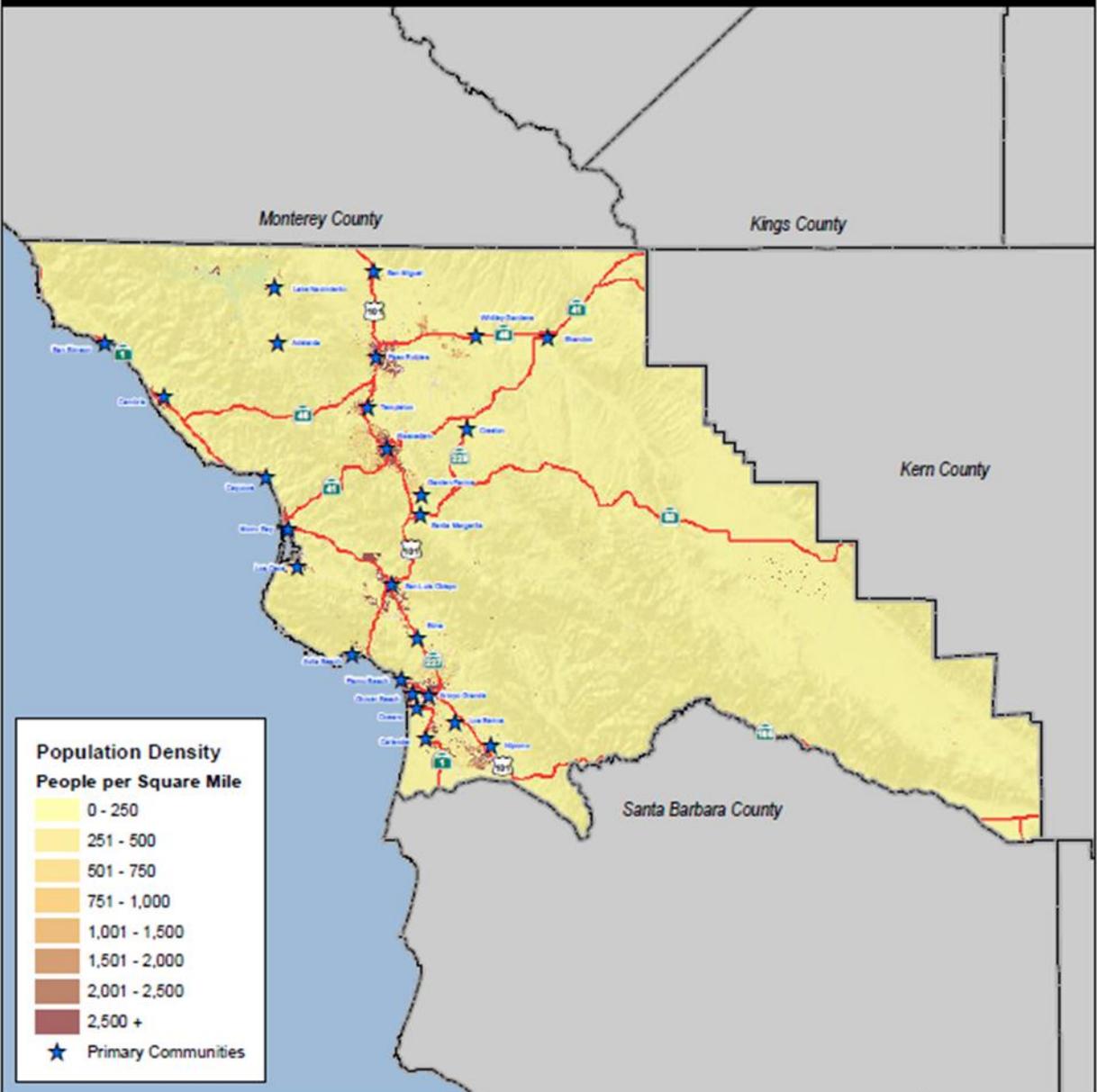


Figure B: Maps

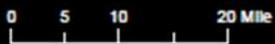


POPULATION DISTRIBUTION

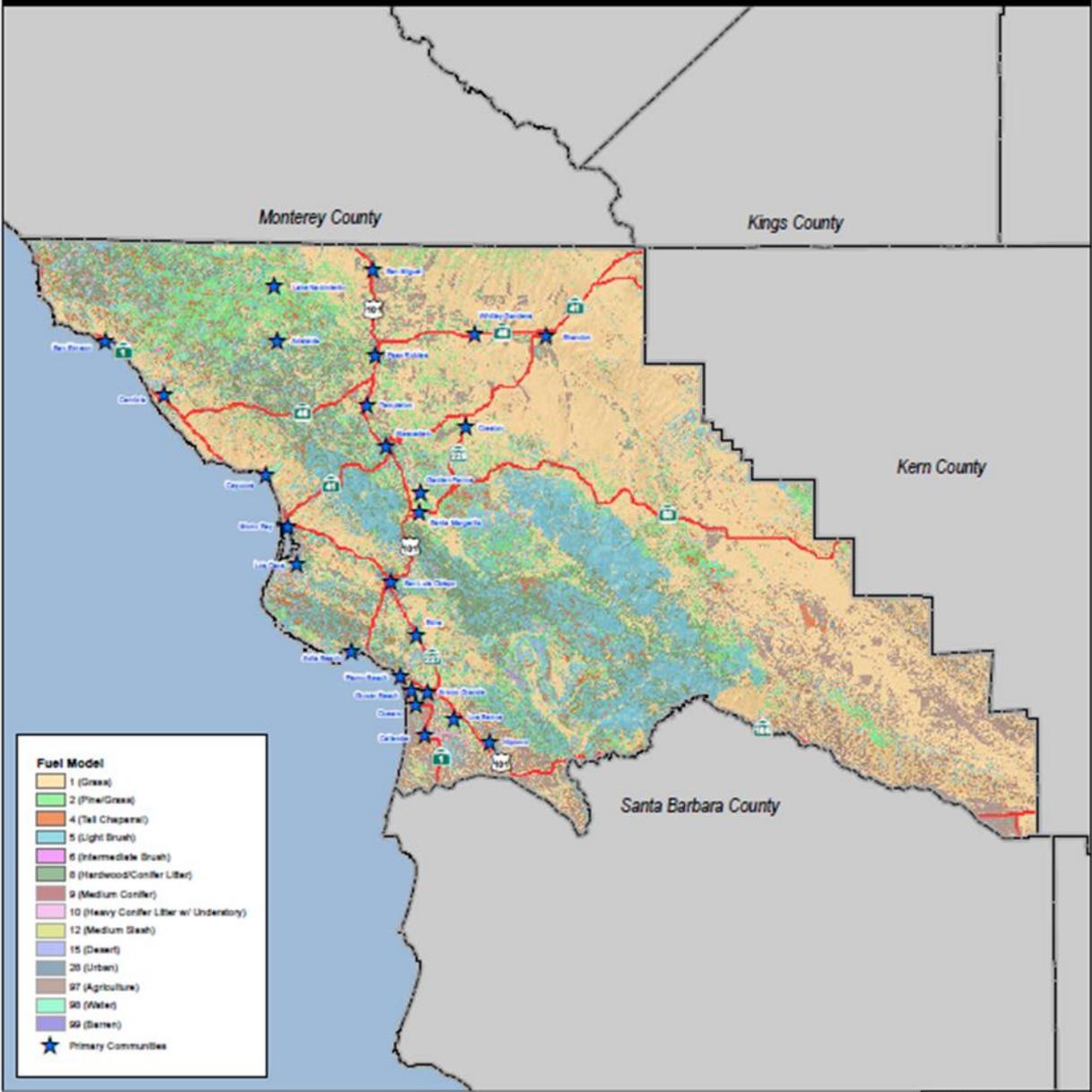


COMMUNITY WILDFIRE PROTECTION PLAN
FOR
SAN LUIS OBISPO COUNTY

Data Source: CalMapper; CAL FIRE/SLO



FUEL MODELS



**COMMUNITY WILDFIRE PROTECTION PLAN
FOR
SAN LUIS OBISPO COUNTY**

Data Source: CalMapper; CAL FIRE/SLO



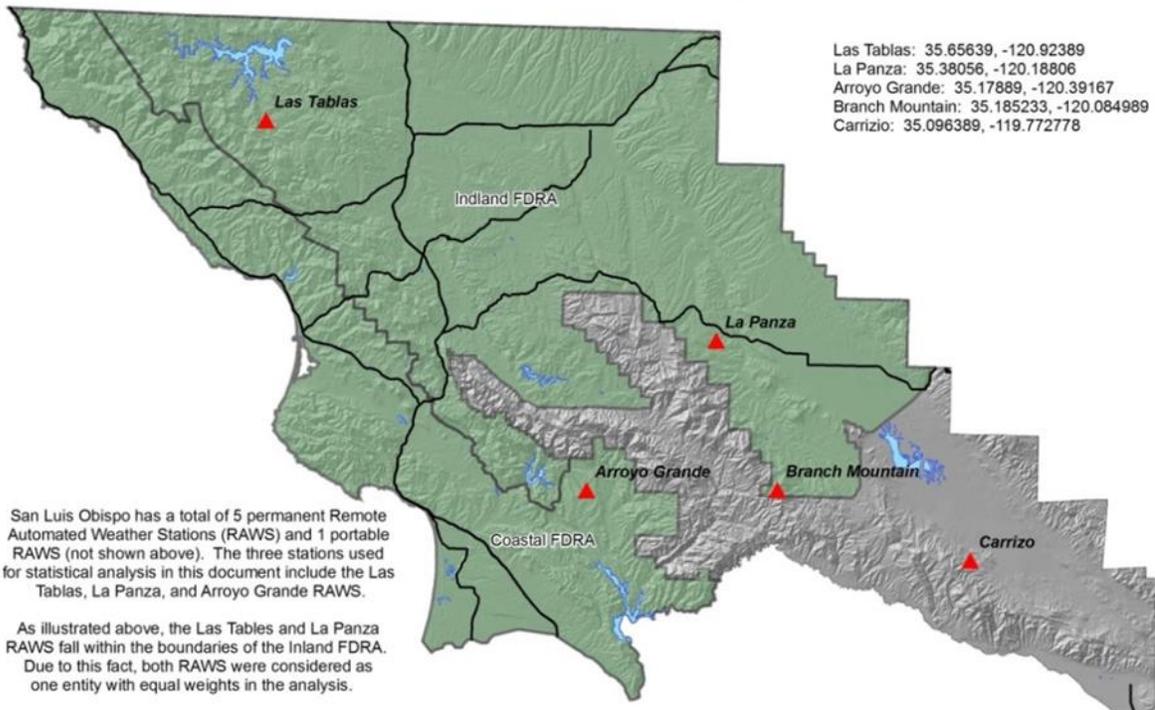
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Fuels Distribution San Luis Unit



Remote Automated Weather Station Locations for San Luis Obispo County

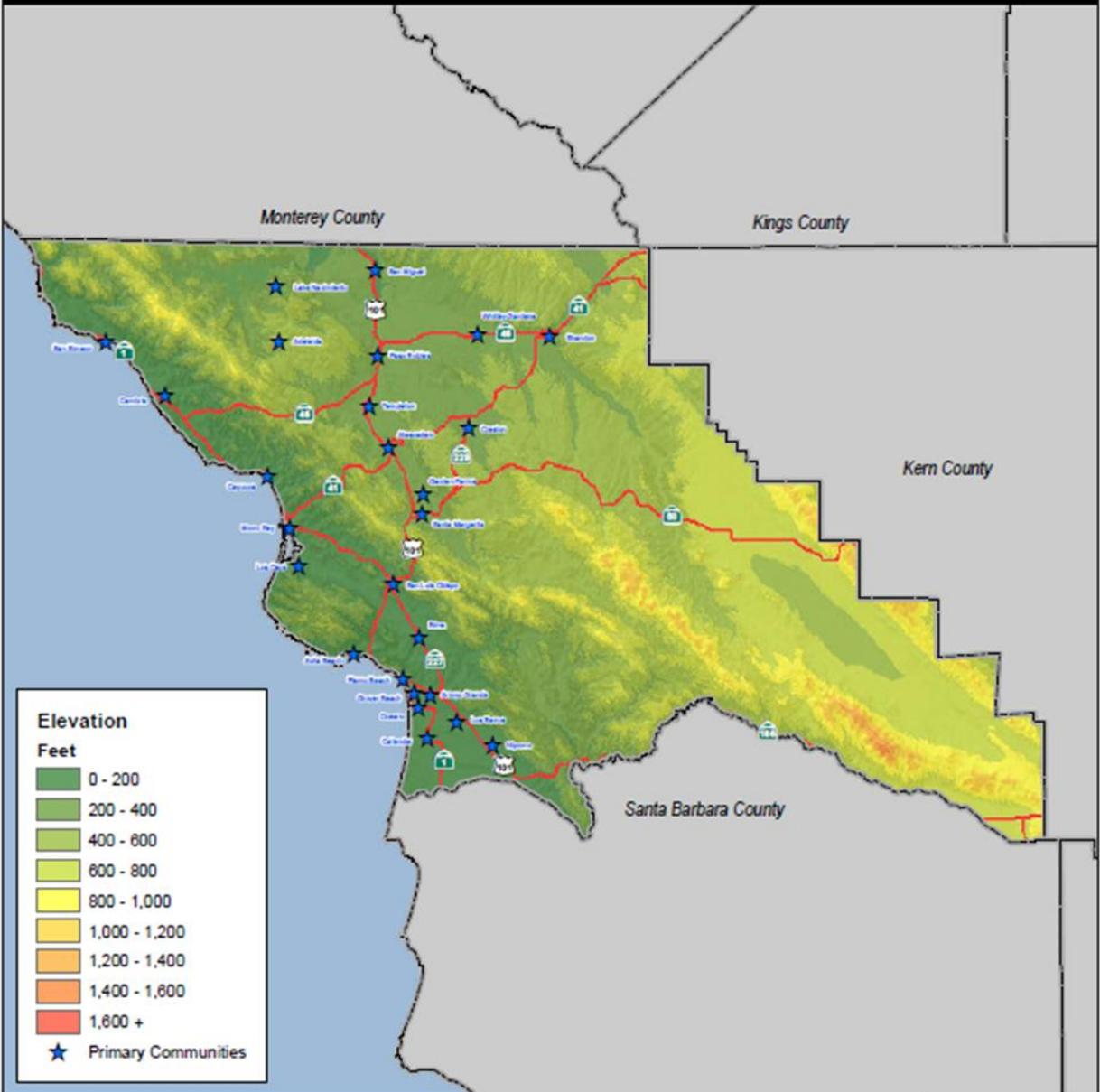


Created by: SLU GIS
 Contact: SLU Headquarters
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 (805) 543-4244

Map for reference purposes only. The CAL FIRE/SLO County Fire does not assume liability for any damages caused by errors or omissions in data and makes no warranty of any kind, express, or implied, that these data are accurate and reliable.



TOPOGRAPHY



COMMUNITY WILDFIRE PROTECTION PLAN
FOR
SAN LUIS OBISPO COUNTY

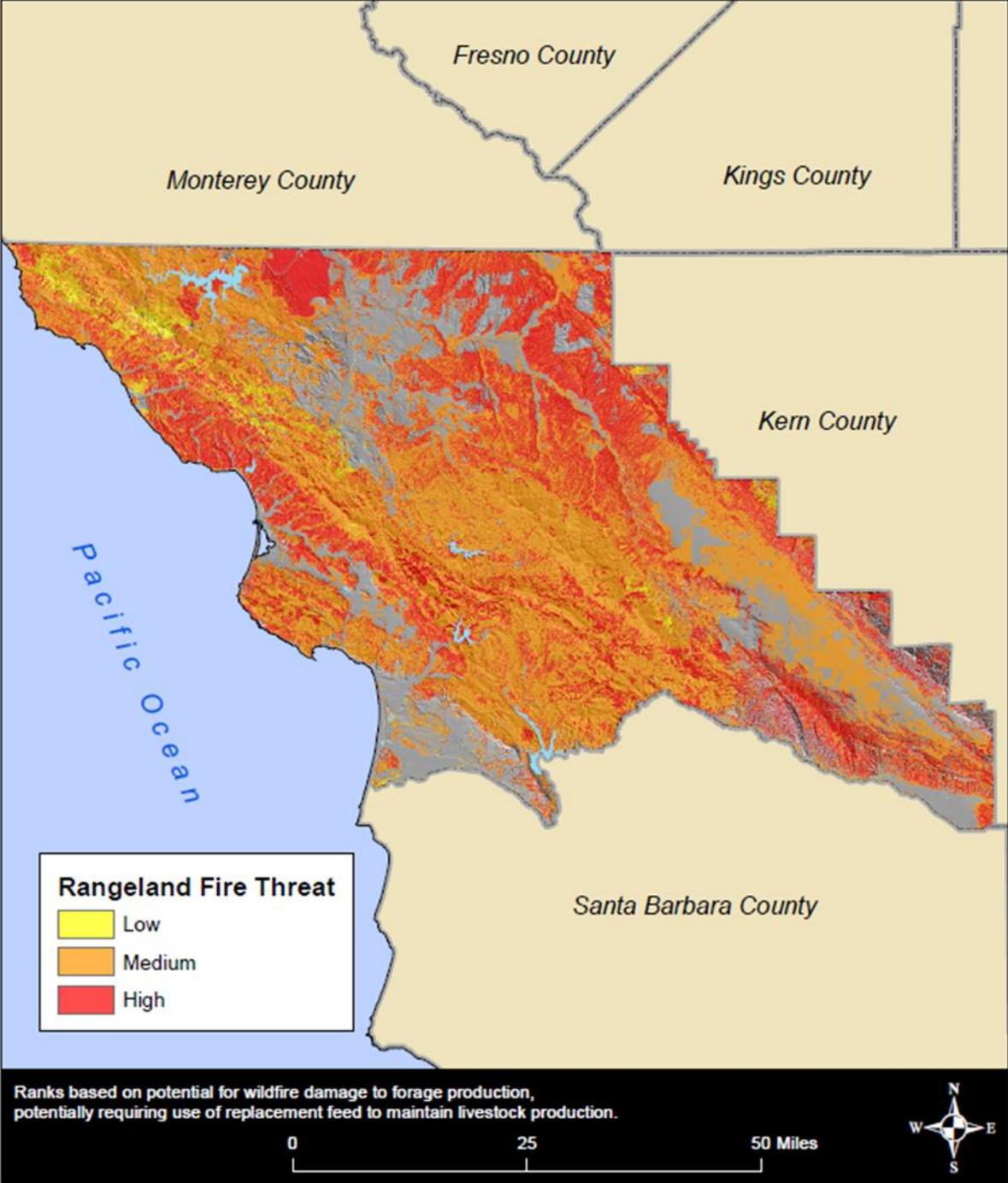
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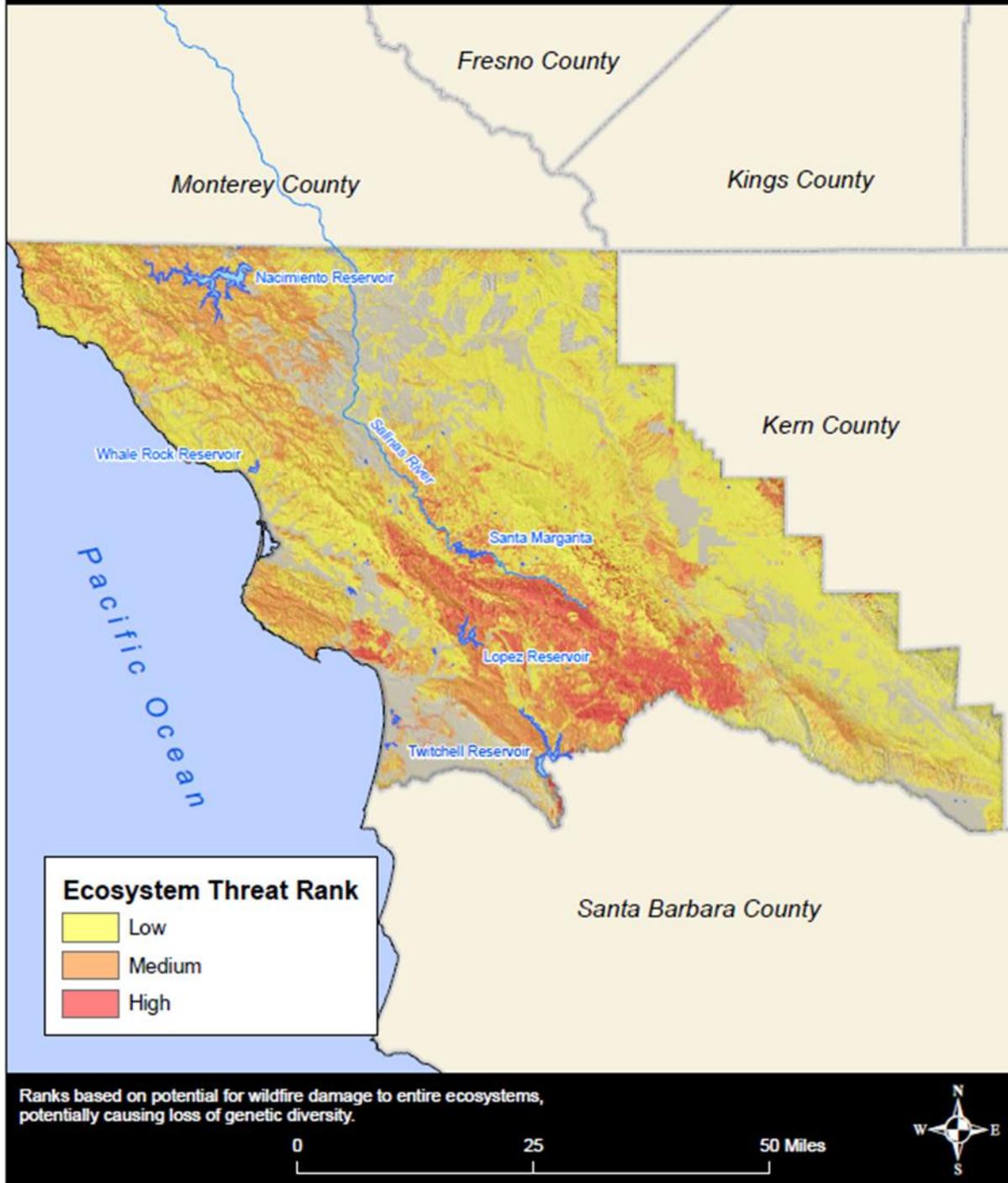
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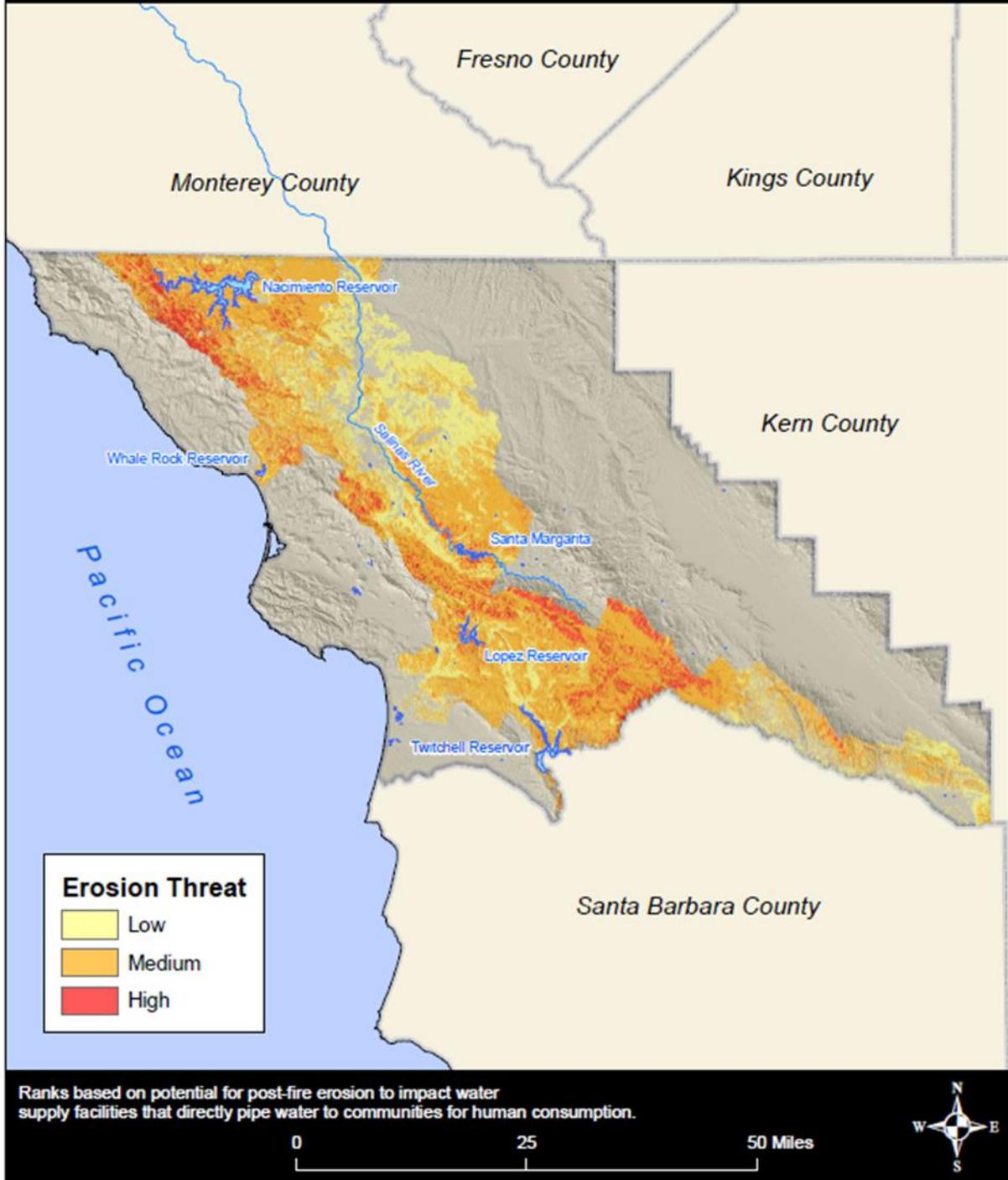
Rangeland Fire Threat San Luis Unit



Fire Threat to Ecosystem Health San Luis Unit



Post Fire Erosion Threat to Community Water San Luis Unit



ANNUAL ACCOMPLISHMENTS REPORTING (2015)

Pre-Fire Planning:

- Continued to maintain and update Countywide GIS datasets relevant to pre-fire planning.
- Routinely update pre-fire and emergency plans, maps, and documents.
- Continued to Identify operational/response planning needs (e.g. wildfire response plans, evacuation areas, evacuation routes, shelter locations, fire equipment staging areas, control objectives, significant environmental areas, etc.).
- Maintained database of water purveyors in the county to determine which are available to provide water for firefighting operations.
- Creation of West Cuesta Pre-Attack Map

Investigations and Enforcement:

- Multiple trainings involving Active Shooter
- Community partnerships and funding sources to develop and deliver CAL FIRE's fire safe message to all schools in the county.
- Conducted public outreach/education in communities where fire violations are frequent.
- Reduction of "undetermined" fires after initial investigation.

Education and Information:

- Yearly information and education at the California Mid State Fair
- Increase of Twitter followers

Planning & Engineering

- 680 Plan Reviews Completed
- 790 Building Inspections Completed

Vegetation Management:

- Maintenance of new fuel breaks.
- Addition of new fuel breaks
- Multiple prescribed burning projects

Fire Hazard Severity Mapping and Mitigation:

- Countywide reduction of hazardous fuels with cooperation of SLO FSC.
- Successful transition from CalMAPPER 1.9 to CalMAPPER 2.0