Community Wildfire Protection Plan

San Luis Obispo County

July 2019

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ACKNOWLEDGMENTS

This Community Wildfire Protection Plan is a guide to provide a community that is prepared and resilient to the impacts of wildland urban interface fires.

Thank you to the San Luis Obispo County Fire Agencies for their assistance in preparing this document.

This includes the Atascadero Fire Department, Avila Beach Community Services District, CAL FIRE San Luis Obispo, Camp Roberts Fire Department, Cambria Fire Community Services District, Five Cities Fire Authority, Hearst Castle Fire Department, Morro Bay Fire Department, Paso Robles Fire Department, Pismo Beach Fire Department, San Luis Obispo City Fire Department, San Luis Obispo County Fire Department, San Miguel Community Services District, Santa Margarita Fire Protection District, Templeton Community Services District, and the U.S. Forest Service (Los Padres National Forest).

A special thank you to the San Luis Obispo County Fire Safe Council (SLO FSC) for securing funding and coordinating development of this plan. SLO FSC project coordinators Dan Turner, Anthony Ramirez, and Grant Helete prepared this document.

MISSION STATEMENT

"*The San Luis Obispo County Community Fire Safe Council, Inc. is a diverse collaborative group dedicated to creating a Fire Safe environment through education, partnerships, and action.*"

SIGNATURE PAGE

Community Wildfire Protection Plan for San Luis Obispo County:

This Plan:

- Was collaboratively developed. Interested parties, federal, state, city, and county agencies within the county have been consulted and are listed in the plan.
- Identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce the loss of values at risk within the county.
- 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.
- This plan recommends measures to reduce the ignitability of structures throughout the area addressed by the Plan.

The Healthy Forests Restoration Act requires that the applicable local government, local fire department(s), and State agency responsible for forest management agree to the Community Wildfire Protection Plan (CWPP).

The undersigned have reviewed the CWPP for San Luis Obispo County.

Casey Bryson, **President** **San Luis Obispo County Fire Chiefs Association**	**Date**
Scott M. Jalbert, Chief **CAL FIRE-San Luis Obispo Unit**	**Date**
Debbie Arnold, President **San Luis Obispo County Community Fire Safe Council**	**Date**
Debbie Arnold, Chair **County of San Luis Obispo Board Of Supervisors**	**Date**

EXECUTIVE SUMMARY

This San Luis Obispo County Strategic Community Wildfire Protection Plan (CWPP) is developed to collaboratively address fire protection planning efforts occurring in San Luis Obispo County (County), to minimize wildfire risk to County watershed lands, communities, assets, firefighters, and the public. It is developed to work cohesively with the California Fire Plan.

This CWPP presents the County's physical and social characteristics, wildfire history, identifies and evaluates landscape-scale fire hazard variables, utilizes Priority Landscape datasets for evaluating wildfire risk, identifies strategic measures for reducing structural ignitability, public education and outreach, and identifies strategic fuel reduction goals and techniques for minimizing wildfire risk. This CWPP is a living document managed and updated routinely by the San Luis Obispo County fire agencies and the San Luis Obispo County Fire Safe Council with stakeholder input and involvement.

The primary goal of this CWPP is to provide a county level strategic planning level framework for wildfire hazard assessment and risk reduction within San Luis Obispo County so that people, structures and assets are provided additional protection, reducing the potential of ignitions and loss. The goal is to improve fire prevention and suppression efforts, reduce hazardous fuels, restore fire-adapted ecosystems, and promote community assistance. Additional goals of this CWPP 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 strategic CWPP will serve as the foundation document for local CWPPs to interface their local CWPP's and hazard and risk projects to.

The development strategies of this CWPP 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 CWPP 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
- Develop community outreach and education goals
- Monitor the effectiveness of programs, projects and initial attack success.

This CWPP, 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 stakeholder input-focused approach.

This CWPP 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, goal and priority setting, and accountability provide the framework for the guiding tactical principles of this CWPP, 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, land use, and public outreach 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: COUNTY OVERVIEW

This CWPP 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 282,887, 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),Bureau of Land Management (BLM), and CA Fish and Wildlife and State Parks and Recreation 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 Wildlife	45,776	2.15%
California Dept. of Parks and Recreation	19,958	0.94%
Local Government	17,415	0.82%
Non-Profit Conservancies and Trusts	2,653	0.12%
Other State Lands	4,129	0.19%
Private	1,573,020	73.93%
U.S. Bureau of Land Management	244,530	11.49%
U.S. Dept. of Defense	28,686	1.35%
U.S. Fish and Wildlife Service	2,608	0.12%
U.S. Forest Service	188,593	8.87%
Bureau of Reclamation	460	0.02%

*Source: Fire Resource Assessment Program (FRAP)

POPULATION AND HOUSING

The estimated 2016 population of San Luis Obispo County is 282,887, a 4.9 percent increase since 2010. San Luis Obispo County has 7 incorporated cities and unincorporated county lands. The County includes approximately 120,137 housing units. The largest population center is the City of San Luis Obispo, with approximately 47,339 people, followed by the cities of Paso Robles 31,580 people and Atascadero 29,819 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.

Table 2: Communities and Population Distribution in San Luis Obispo County *Source: U.S. Census Bureau 2010

Community*	Population	Percentage
Incorporated Cities		
Arroyo Grande	17,252	6.40%
Atascadero	28,310	10.50%
Paso Robles	29,793	11.05%
Grover Beach	13,156	4.88%
Morro Bay	10,234	3.80%
Pismo Beach	7,655	2.84%
San Luis Obispo	45,119	16.73%
Unincorporated Areas (Census-designated Places) 2010		
Avila Beach	1,627	0.60%
Callender (includes Woodlands CDP)	1,838	0.68%
Cambria	6,032	2.24%
Cayucos	2,592	0.96%
Creston	94	0.03%
Edna (includes Los Ranchos CDP)	1,670	0.62%
Garden Farms	386	0.14%
Lake Nacimiento (includes Oak Shores CDP)	2,748	1.02%
Los Berros	641	0.24%
Los Osos (includes Baywood Park)	14,276	5.29%
Nipomo (includes Blacklake CDP)	20,593	7.64%
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)	45,024	16.70%

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 wildland areas 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 areas capable of propagating fire. While often used interchangeably when discussing WUI issues, the difference between the terms "interface" and "intermix" 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 more than 50% of the parcel. In 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 USDA Healthy Forests Restoration Act of 2003 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 (USDA) 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; house to house fire spread is likely
- 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:

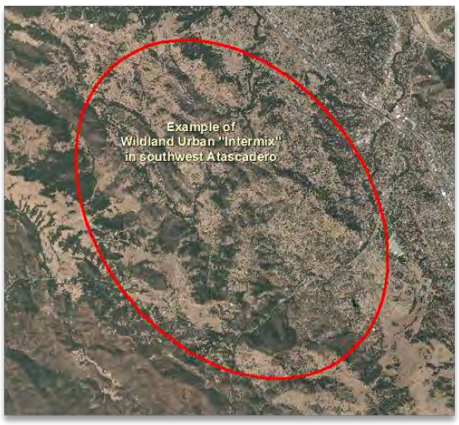


Figure 2: Wildland Urban Intermix

Intermix Advantages:

- Low housing density
- Less likely to have house to house fire spread

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 most rural areas of the county and some more densely developed areas of Cambria, Adelaide, Lake Nacimiento, Suey Creek, West Atascadero, East Arroyo Grande, Creston, El Pomar, 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 daily 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 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 and proper property hygiene.

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, equipment use, welding, or mowing when weather conditions are hot and dry.

As with the weather and topography, the terrain 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 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 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 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 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.

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.

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

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, if 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 above ground 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

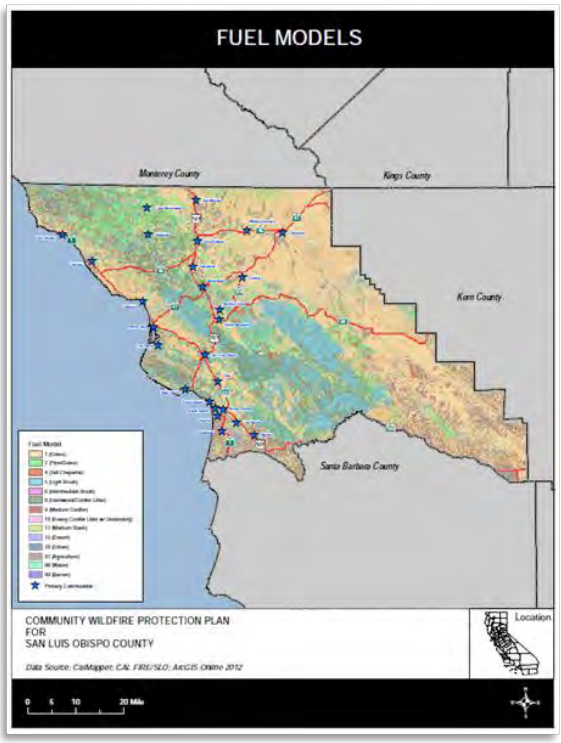


Figure 4: Fuel Model

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 Monterey pines 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 due to overcrowding conditions of the forest, drought driven bark beetle epidemic, western gall rust, dwarf mistletoe infestations, and areas of pine 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 and high winds. When a tree is hazardous because of structural weakness this poses a risk to civilians and fire fighters. This structural weakness is increased by infestation of bark beetles, dwarf mistletoe, western gall rust and pine pitch canker. These conditions, may result in pre-mature tree death thus posing an increased risk to the 6,000 people of Cambria Village that reside within the infected pine stands. In addition to risks to people, the tree mortality 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. Monterey pine grow and reproduce well when openings in the forest canopy are provided to allow light and nutrients to become available. 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 conducted using commercial thinning to reduce hazardous fuel, improve forest health, and stimulate regeneration 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. Sudden Oak Death is currently found at the Monterey/San Luis Obispo County border, though the potential for spread into San Luis Obispo County is high. The *SOD Map* is a useful application that produces a Google Earth.kmz file for viewing SOD locations and sample sites. SOD has the potential to kill a significant number of coast live oak, California black oaks, Shreve oak, canyon live oaks and tanoaks in the County. 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 will, increase ground fuels by the, regenerating shrub species, which in turn increases the fire hazard. Aerial monitoring, stream side monitoring and ground checking dying oak trees are 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 circinatum*) affects several other pine species in the County, including Bishop Pine (*Pinus muricata*) Grey Pine (*Pinus sabiniana),* Coulter Pine *(Pinus coulteri*) and Knobcone Pine (*Pinus attenuate*). *Pine pitch canker* is caused by a fungal infection and is characterized by resinous cankers on the trunk, branches or roots accompanied by needle wilt, limb dieback and potential tree mortality. The fungus is spread by insect vectors that transmit the pathogen into uninfected trees. These insect vectors include species of bark, twig, and cone beetles. Infested material and equipment can also spread this fungus to un-infested areas. 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.

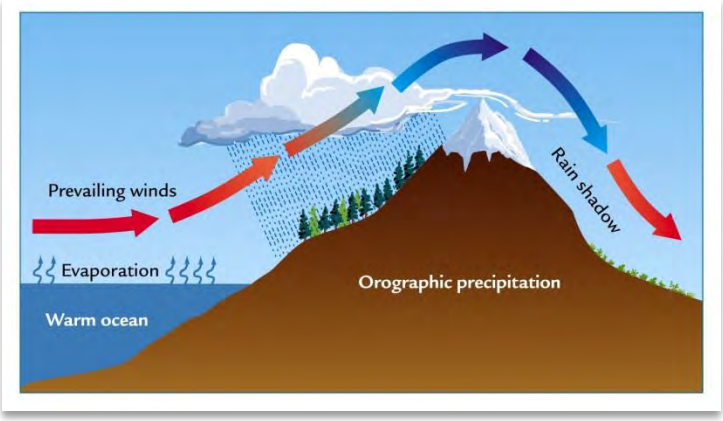
The short-term and long-term implication of these forest diseases and other insect infestations in relation to fire prevention and protection is the relatively rapid mortality that occurs, resulting in increased dead fuel loads. The recently dead standing fuels contribute to increased wildfire incidence and severity and require treatment and/or removal, especially within WUI areas. Furthermore, care must be taken to avoid transportation of infested material or spreading these diseases by using or transporting infected tools, chips, and trimmings/plant material into non-infected regions.

WEATHER

San Luis Obispo County is characterized by a Mediterranean climate with most 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 the coast range is known by firefighters as an area of sudden wind changes, as the influence of the Pacific Ocean and the inland valleys converge. One such area east of Nipomo 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 humidity. 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. Communities most impacted by these winds are Cambria, Cayucos, Morro Bay, San Luis Obispo, Avila Valley, Edna Valley, Arroyo Grande, Pismo Beach and Nipomo



The Garcia and Santa Lucia 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, Coastal and Inland. 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 six stations located within San Luis Obispo County. Four 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 placed to measure weather in certain 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.

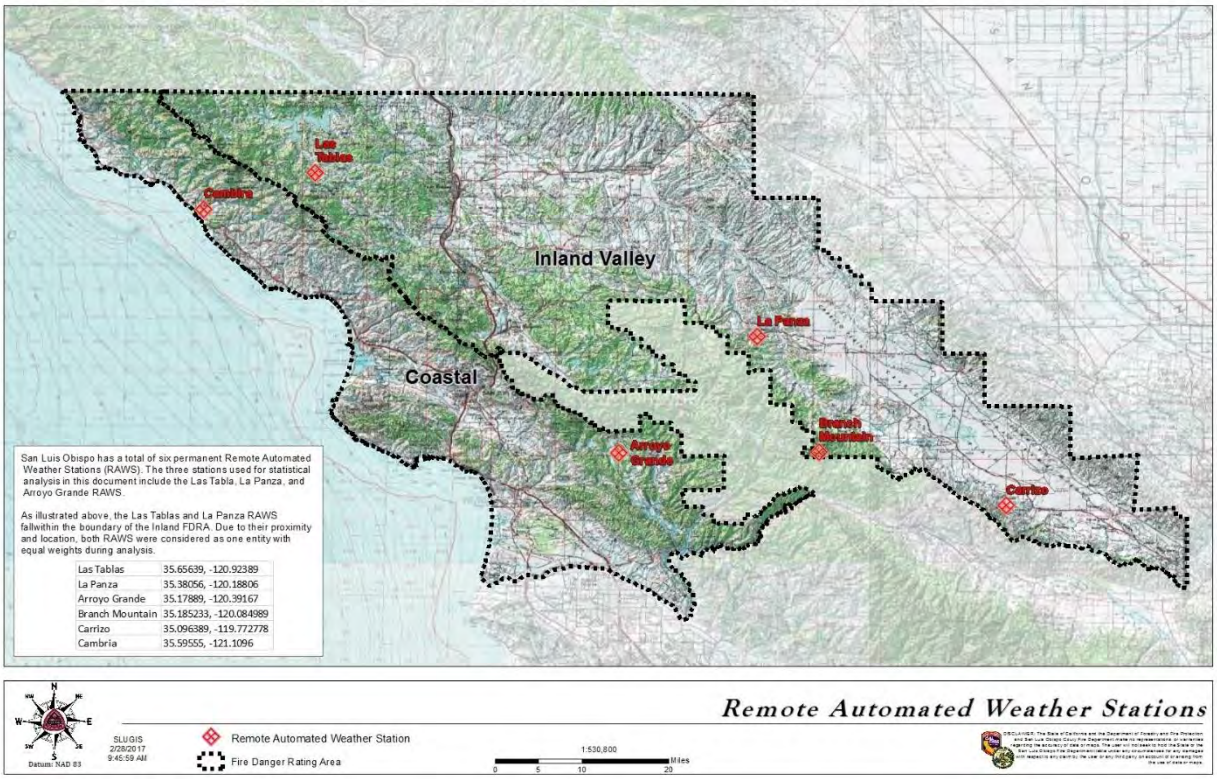


Figure 5: RAWS

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.

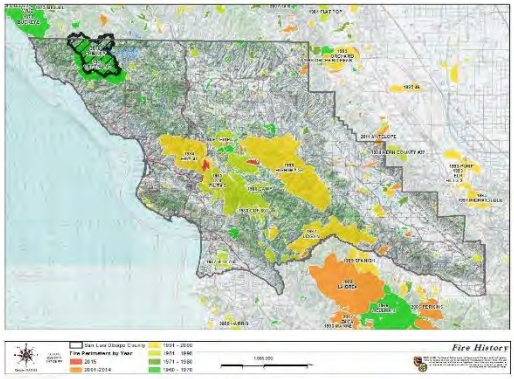
Figure 6: Topography Example

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 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. Many large, damaging wildfires have occurred in the County, notably the Chimney Fire (2016), 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 fires burned approximately 400,000 acres, destroyed numerous structures, and cost millions of dollars to suppress. The fire with the most recent significant impact on the County was the Chimney Fire, which destroyed 49 residences and 21 other structures. While these large fires can create significant damages due to their size, even smaller WUI fires in densely developed areas can be very damaging.



Based on historical fire perimeter data, repeated burning is observed within the County primarily in the Santa Lucia Range. Land ownership (federal) 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 concentrated distribution of fire perimeters. The average interval between large wildfires more than 20,000 acres burning within San Luis Obispo County is 7.3 years, with intervals as short as 1 year and to 17 years.

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
Chimney Fire	2016	46,344

*Source: FRAP

IGNITION HISTORY

Cal Fire Ignition data for San Luis Obispo County was analyzed for a 5-year period (2013-2017) to evaluate ignition trends and problems within the County. This dataset includes 781 ignitions and includes an identification of fire cause. Table 6 and Figure 8 present the ignition history for San Luis Obispo County between 2013 and 2017, classified by fire cause.

Ignition Cause*	Number	Percentage
Arson	31	4%
Campfire	35	4%
Debris Burning	46	6%
Powerline/Vehicle/Equipment Use	319	41%
Lightning	10	1%
Playing w/ Fire	7	1%
Unknown/Undetermined	326	42%
Smoking	9	1%

Table 6: SRA Ignition History for San Luis Obispo County (2013-2017)

The 5-year ignition history for San Luis Obispo County identifies trends in ignition type, with most 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 781 ignition points containing a latitude and longitude included in the dataset, approximately 48% are located within 20 feet of any road. Of these 48%, 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, Templeton, Atascadero, Los Osos, San Luis Obispo, Arroyo Grande, and in the Nipomo area. 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.

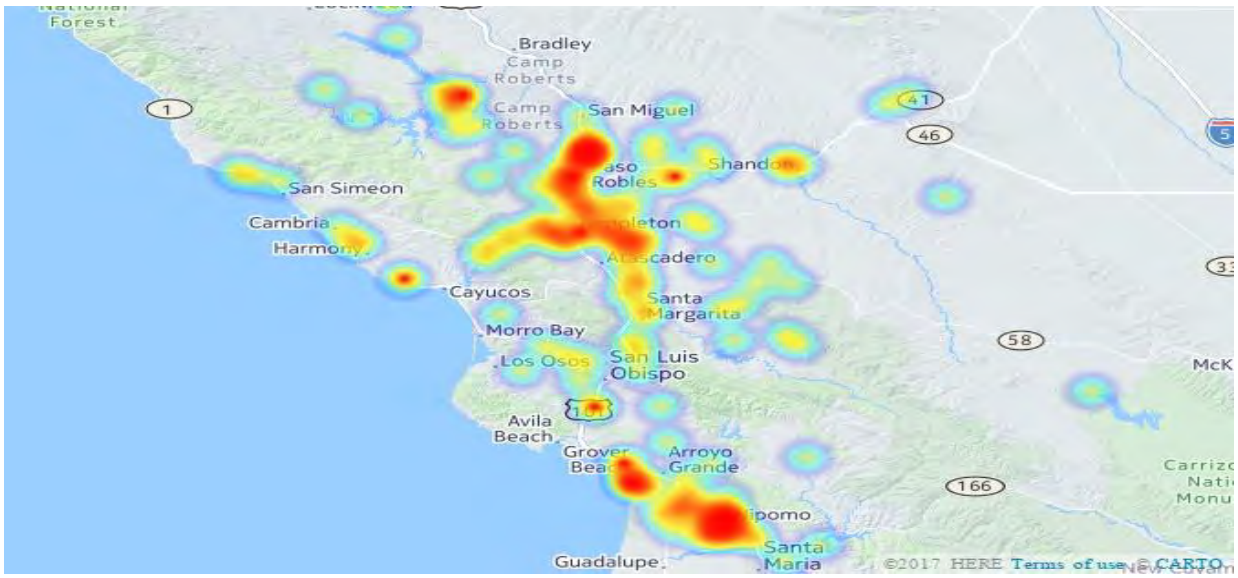


Figure 8: Ignition Density

PREPAREDNESS AND FIREFIGHTING CAPABILITIES

San Luis Obispo County fire agencies put tremendous effort into maintaining the highest preparedness level possible. This is a priority for each agency and program. Each agency works with the intent to accomplish the mission of public protection and fire safe community. 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, San Luis Obispo County agencies present annual preparation events to assist in maintaining the goal of keeping wildland fires at 10 acres or less. Below is a brief outline of the preparation efforts of each division within the San Luis Obispo County fire agencies.

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 agency's 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, they are trained and equipped to handle a countywide incident, including wildland and structural fires, earthquakes, tsunami, riots, hazardous material incidents, nuclear events, and other major emergencies. In addition to responding to emergency, training, fleet management, and dispatch function serve a critical role to our efficiency and preparedness to respond.

Fire Prevention Bureau

Prevention staff spends much 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 function may be full, or part time staffed (depending on the agency's resources) 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. 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.

Resource List:

Resource	Local	State	Federal
Air Attack Coordinator	0	1	0
Air Tankers	0	2	0
Bulldozers	0	3	0
Hand Crews	0	5 (2 more when Toro Camp Opens in 2019)	1
Helicopters	0	0	1
Mobile Communication Units	0	1	0
Mobile Kitchens	0	1	0
Type 1 Engines	0	0	0
Type 2 Engines	56	0	0
Type 3 Engines	14	17	2
Type 4 Engines	0	0	0
Type 5 Engines	0	0	0
Type 6 Engines	9	0	1
Water Tenders	4	0	0

SECTION II: COLLABORATION

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS / FIREWISE COMMUNITIES

As a key component of the Healthy Forest Restoration Act (HFRA) of 2003, a Community Wildfire Protection Plan (CWPP) serves as a mechanism for community input and identification of areas presenting high fire risk as well as identification of fire hazards and potential projects intended to mitigate such risk. This Plan integrates the community-focused approach of the CWPP process and is intended to provide the community a forum for identifying assets and communities at risk from wildfire, which may include people, property, natural resources, cultural values, economic interests, and infrastructure. The identification of these assets or communities by the community strongly influences the potential wildfire hazard mitigation projects identified in this Plan. The organization and title of representatives involved in the development of this Plan are indicated below.

Plan Development Team:

Organization	Title
CAL FIRE / San Luis Obispo County Fire	Chief
Cambria CSD Fire Department	Fire Chief
City of Atascadero Fire Department	Fire Chief
City of Morro Bay Fire Department	Fire Chief
City of Paso Robles Fire Department	Fire Chief
City of San Luis Obispo Fire Department	Fire Chief
Five Cities Fire Authority	Fire Chief
Los Padres National Forest	Forest Supervisor
Bureau of Land Management	
San Luis Obispo County Community Fire Safe Council	President
San Luis Obispo County Fire Chiefs Association	President

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS / FIREWISE COMMUNITIES

The location and size of San Luis Obispo County dictate that local fire resources must be used effectively since these resources are limited, and additional resources could be several hours away. The diversity of available resources and fire-related problems mandate the cooperative use of fire service resources. Cooperative assistance is provided on reciprocal contributions without charge and may be provided in two forms:

- Automatic Aid: a predetermined immediate joint response as a means to provide effective fire protection
- Mutual Aid: responses to supplement the resources of any fire agency during a period of actual or potential need, including move-up and over assignments.

Mutual Aid is dependent on recognition that equipment and resources are expected to be provided only when dispatch of the resources will not unduly jeopardize local capabilities.

This San Luis Obispo County Fire Services Mutual Aid Plan intends to provide the following:

- Upon demand, provide the cost-effective use of the emergency resources of all jurisdictions
- Achieve a balance over the long run between providing and receiving entities
- Eliminate complex financial and legal agreements
- Address all mutual aid responses and station coverage assignments required of the fire service, including but not limited to the following:
    - Fire
    - Rescue
    - Hazardous Materials
    - Earthquake
    - Natural and Human-caused Disasters
    - EMS/Mass Casualty Incidents

The following fire departments, districts, and agencies currently engage in Automatic/Mutual Aid agreements in San Luis Obispo County:

- Atascadero Fire Department
- Atascadero State Hospital Fire Department
- Avila Beach Fire Department
- CAL FIRE San Luis Obispo
- Camp Roberts Fire Department
- CAL FIRE-San Benito-Monterey
- Cambria Fire Department
- California Men's Colony
- CAL FIRE Fresno-Kings
- Five Cities Fire Authority
- Guadalupe Fire Department
- Hearst Castle Fire Department
- Morro Bay Fire Department
- Paso Robles Fire Department
- Pismo Beach Fire Department
- Santa Barbara County Fire Department
- South Bay Fire Department
- San Luis Obispo County Fire
- San Luis Obispo City Fire Department
- San Miguel Fire Department
- Santa Maria Fire Department
- Santa Margarita Fire Protection District
- Templeton Fire Department
- U.S. Forest Service (Los Padres National Forest)

Coordinated Dispatch Agreements

In addition to the Automatic/Mutual Aid agreements identified above, dispatch agreements also exist between CAL FIRE/SLO, Cambria Community Services District, the Santa Margarita Fire Protection District, the San Miguel Community Services District, the Templeton Community Services District, the City of Morro Bay, the Five Cities Fire Authority, and the CNG-Camp Roberts.

Central Coast Operating Plan

The California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (CFMA) requires an Annual Operating Plan to coordinate wildfire response efforts between state and federal agencies.

For San Luis Obispo County, the Central Coast Operating Plan (CCOP) represents an annually updated and approved agreement between CAL FIRE, BLM, USFS, and the U.S. Fish and Wildlife Service (USFWS). The CCOP provides the participating agencies with the guidelines and information necessary to properly execute the terms of the Agreement. The CCOP identifies fire protection elements, special management considerations, fire protection organization, maps, operational procedures, fire prevention activities, general procedures, and a list of relevant agency contacts.

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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 assesses 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.

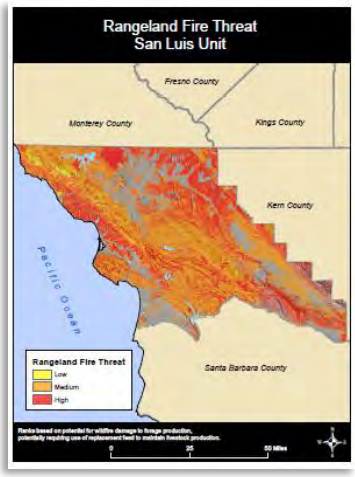

Figure 9: Rangeland Fire Threat

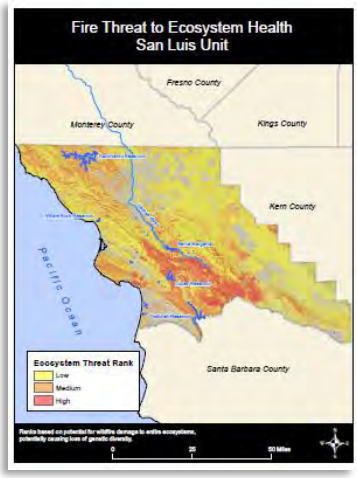

Figure 10: Ecosystem Threat

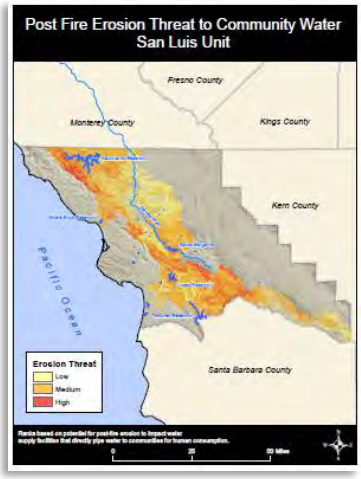

Figure 11: Post Fire Erosion Threat

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	SLU-1.3
Arroyo Grande	SLU-1.2
Atascadero	SLU-1.4
Avila Beach	SLU-1.6
Baywood Park-Los Osos	SLU-1.1
Cambria	SLU-1.1, CMB-1
Cayucos	SLU-1.1
Lake Nacimiento	SLU-1.3
Nipomo	SLU-1.2
Paso Robles	SLU-1.3, PRF-1
Pismo Beach	SLU-1.6
San Luis Obispo	SLU-1.1, SLO-1
San Miguel	SLU-1.5, SMG-1
Santa Margarita	SLU-1.4, SMV-1
Templeton	SLU-1.3, TEM-1

*Source: FRAP

PLANNING AREAS

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

CAL FIRE-San Luis Obispo

SLU Planning Area 1 (CAL FIRE – Battalion 1; SLU-1.1)
SLU 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 communities of San Simeon, Cambria, and Cayucos 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 South Bay SBY Planning Area -1). Large fire history in the Planning Area includes the 1960 Weferling Fire and the 1994 Highway 41 Fire, and the 2016 Chimney Fire.

SLU Planning Area 2 (CAL FIRE – Battalion 2; SLU-1.2)
SLU Planning Area 2 encompasses approximately 447,903 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 (LPF) in the central portion of the Planning Area. Its northern boundary runs along the boundary of the LPF, 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.

SLU Planning Area 3 (CAL FIRE – Battalion 3; SLU-1.3)
SLU Planning Area 3 encompasses approximately 220,357 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 northeastward 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 and 2016 Chimney Fire in the far north western portion of the Planning Area.

SLU Planning Area 4 (CAL FIRE – Battalion 4; SLU-1.4)
SLU Planning Area 4 encompasses approximately 702,677 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 unnamed fire in 1939, the 1985 Las Pilitas Fire, the 1996 Highway 58 Fire, and the eastern portion of the 1994 Highway 41 Fire.

SLU Planning Area 5 (CAL FIRE – Battalion 5; SLU-1.5)
SLU Planning Area 5 encompasses approximately 415,826 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.

SLU Planning Area 6 (CAL FIRE – Battalion 6; SLU-1.6)
SLU Planning Area 6 encompasses approximately 30,889 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 (Avila Beach Planning area AVI-1) and Pismo Beach (Pismo Beach Planning area PSM-1). Fire history in the Planning Area is limited primarily to a few small fires adjacent Diablo Canyon Nuclear Power Plant.

Cambria Planning Area (CMB-1)
The Cambria Planning Area encompasses the Community of Cambria and is approximately 2,900 acres in size. The Cambria Community Services District (CSD) Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area and Cambria is a Priority Community designated in this Plan. No fires included in the historical database (FRAP) have burned within the community, although several fires have burned in the immediate surroundings.

CA State Parks Planning Area (HRF-1)
The CA State Parks Planning Area encompasses all CA State Parks land within SLO County and is approximately 20,085 acres in size. CAL FIRE San Luis Obispo is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. Fire history according to the historical database (FRAP) in this Planning Area includes the 1997 Montana Fire, the 2007 Diablo Fire, and several other smaller fires.

Morro Bay Planning Area (MRB-1)
The Morro Bay Planning Area encompasses the City of Morro Bay and is approximately 3,750 acres in size. The Morro Bay Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area and Morro Bay is a Priority Community designated in this Plan. No fires included in the historical database (FRAP) have burned within the City, although several smaller fires have burned in the immediate surroundings.

San Luis Obispo Planning Area (SLO-1)
The San Luis Obispo Planning Area encompasses the City of San Luis Obispo and is approximately 8,350 acres in size. The San Luis Obispo City Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area and San Luis Obispo is a Priority Community designated in this Plan. Fire history according to the historical database (FRAP) in this Planning Area includes the 1985 Las Pilitas Fire, which burned the eastern portion of the City and the 1994 Highway 41 Fire which burned within approximately 400 feet of the eastern boundary of the City.

Paso Robles Planning Area (PRF-1)
The Paso Robles Planning Area encompasses the City of Paso Robles and is approximately 12,600 acres in size. The Paso Robles Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. The City of Paso Robles is a Priority Community designated in this Plan. No fires included in the historical database (FRAP) have burned within the City, although several smaller fires have burned in the immediate surroundings.

San Miguel Planning Area (SMG-1)
The San Miguel Planning Area encompasses the census-designated place of San Miguel and is approximately 1,090 acres in size. The San Miguel Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. The census-designated place of San Miguel is a Priority Communities designated in this Plan. Fire history according to the historical database (FRAP) in this Planning Area primarily consists of the 1981 Root #2 Fire, which burned approximately 1,870 acres in the San Lawrence Terrace area of San Miguel. In addition, several smaller fires have burned in the immediate surroundings.

Templeton Planning Area (TEM-1)
The Templeton Planning Area encompasses the census-designated place of Templeton and is approximately 4,970 acres in size. The Templeton Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. The census-designated place of Templeton is a Priority Communities designated in this Plan. No fires included in the historical database (FRAP) have burned within the downtown area, although several fires have burned in the immediate surroundings.

Santa Margarita Planning Area (SMV-1)
The Santa Margarita Planning Area encompasses the census-designated place of Santa Margarita and is approximately 330 acres in size. The Santa Margarita Fire Protection District is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. The census-designated place of Santa Margarita is a Priority Communities designated in this Plan. Fire history in the Planning Area includes the 1985 Las Pilitas Fire, the 1994 Highway 41 Fire, the 1952 Buckman Fire, and an Unnamed 1915 fire, all of which burned through the town center. In addition, multiple other fires have burned in the immediate surroundings.

Arroyo Grande Planning Area (AYG-1)
The Arroyo Grande Planning Area encompasses the City of Arroyo Grande and is approximately 3,800 acres in size. The Five Cities Fire Authority is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area and Arroyo Grande is a Priority Community designated in this Plan. No fires included in the historical database (FRAP) have burned within the City, although several smaller fires have burned in the immediate surroundings.

Grover Beach Planning Area (GRB-1)
The Grover Beach Planning Area encompasses the City of Grover Beach and is approximately 1,480 acres in size. The Five Cities Fire Authority is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. No fires included in the historical database (FRAP) have burned within the City or its immediate surroundings.

Oceano Planning Area (OCE-1)
The Oceano Planning Area encompasses the census-designated place of Oceano and is approximately 6,450 acres in size. The Five Cities Fire Authority is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. No fires included in the historical database (FRAP) have burned within the planning area or its immediate surroundings.

Halcyon Planning Area (HAL-1)
The Halcyon Planning Area encompasses the community of Halcyon and is approximately 125 acres in size. The Five Cities Fire Authority is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. No fires included in the historical database (FRAP) have burned within the planning area or its immediate surroundings.

Los Padres NF Planning Area (LPF-1)
The Los Padres NF Planning Area encompasses the U.S. Forest Service (USFS) Los Padres National Forest extent within San Luis Obispo County and is approximately 187,000 acres in size. The USFS is responsible for wildland fire management on the LPNF. No Priority Communities are located within this Planning Area, although several are near enough to be affected by wildfire burning on the LPNF. Fire history on the LPNF is extensive, with the majority of fires in San Luis Obispo County burning on or within the Planning Area.

Bureau of Land Management Planning Area (BLM-1)
The Bureau of land Management Planning Area encompasses all BLM land within SLO County and is approximately 244,202 acres in size. The BLM is responsible for wildland fire management on BLM land. No Priority Communities are located within this Planning Area, although several are near enough to be affected by wildfire burning on BLM land. Fire history on BLM land is extensive, and numerous fires in San Luis Obispo County have burned on or within the Planning Area.

Camp Roberts National Guard Planning Area (BOB-1)
The Camp Roberts National Guard Planning Area encompasses all of Cam Roberts National Guard Base and is approximately 244,202 acres in size. Camp Roberts itself is responsible for wildland fire management on the base. No Priority Communities are located within this Planning Area, although the census-designated place of San Miguel is near enough to be affected by wildfire burning on Camp Roberts land. Fire history on Camp Roberts land is extensive, and numerous fires in San Luis Obispo County have burned on or within the Planning Area.

Atascadero Planning Area (ATA-1)
The Atascadero Planning Area encompasses the City of Atascadero and is approximately 16,720 acres in size. The Atascadero Fire Department is the Fire Authority Having Jurisdiction (FAHJ) for this Planning Area. The City of Atascadero is a Priority Community designated in this Plan. Fire history according to the historical database (FRAP) in this Planning Area includes an approximately 6,000-acre unnamed fire dated 1921, and the Pink Goat fire of 1956 as well as many other fires in the immediate surroundings.

CRITICAL INFRASTRUCTURE/CULTURAL/BIOTIC ASSETS

For the purposes of this Plan, critical infrastructure/cultural/biotic assets are those values that may be at risk from wildfire. Assets in San Luis Obispo County include among others 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	Multiple
Transportation Corridors (Highways 166, 101, 46, 41, and 58)	All
Diablo Canyon Power Lines	Multiple
ConocoPhillips Oil Refinery	SLU-1.2
Hearst Castle	Multiple
Communication Sites/Systems	All
Los Padres NF Botanical Gardens	Multiple
Bishop Peak Recreational Site	Multiple
San Luis Mountain Recreational Site	Multiple
Montana De Oro State Park Campground	Multiple
Whale Rock Reservoir	SLU-1.1
San Simeon State Park	Multiple
El Chorro Regional Park	SLU-1.1
Camp San Luis Obispo (California National Guard)	SLU-1.1
San Luis Obispo County Airport	SLU-1.2
Lopez Lake Recreational Area	SLU-1.2
PG&E High Power Line NW of Atascadero	Multiple
Oak Shores Campground	SLU-1.3
Santa Margarita Lake Recreational Area	SLU-1.4
Upper Highway 229	Multiple
Port San Luis Obispo/Lighthouse	SLU-1.6
Diablo Canyon Nuclear Power Plant	SLU-1.6
Hartford Ocean Pier Complex	SLU-1.6
Camp Roberts (California National Guard)	BOB-1
Lake Nacimiento	SLU-1.3
State Water Project	Multiple
Electrical and Communication Transmission and Distribution Lines	All
Power Substations	Multiple
Cultural and Historical Icons	Multiple
Schools and Public Facilities	Multiple
Gas Lines	Multiple
Critical Watersheds	Multiple

COMMUNITIES AND CENSUS-DESIGNATED PLACES

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 near 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.

California State Communities at Risk (CCAR) from potential wildfire use the federal list created in the 2001 National Fire Plan (66 Fed. Reg. 753, January 4, 2001) and added additional communities that were determined to meet specific criteria.

Local Communities at Risk (LCAR) from potential wildfire use California state list and added additional communities that were determined to meet specific criteria.

The Census-Designated Places at Risk for San Luis Obispo County are identified in Table 9. In addition, Table 9 identifies which Planning Area the census-designated place is within, and if it is a Local, CA State, or Federal Community at Risk (CAR). Census-designated places were chosen for Table 9 over a complete list of Communities at Risk for the sake of clarity and conciseness. A full list of Local Communities at Risk can be found in the Appendix.

Table 9. Census Designated Places in San Luis Obispo County

Census Designated Place*	Planning Area	Federal Community at Risk**	CA State Community at Risk***	Local Community at Risk****
Arroyo Grande	SLU-1.2, AYG-1	X	X	X
Atascadero	SLU-1.3, SLU-1.4, ATA-1	X	X	X
Avila Beach	SLU-1.6	X	X	X
Blacklake	SLU-1.2			X
Callender	SLU-1.2			X
Cambria	SLU-1.1, CMB-1	X	X	X
Cayucos	SLU-1.1	X	X	X
Creston	SLU-1.5	X	X	X
Edna	SLU-1.2			X
Garden Farms	SLU-1.4			X
Grover Beach	SLU-1.2, GRB-1	X	X	X
Halcyon	SLU-1.2, HAL-1			X
Harmony	SLU-1.1			X
Lake Nacimiento	SLU-1.3	X	X	X
Los Berros	SLU-1.2			X
Los Osos-Baywood Park	SLU-1.1	X	X	X
Los Ranchos	SLU-1.2			X
Morro Bay	SLU-1.1, MRB-1	X	X	X
Nipomo	SLU-1.2	X	X	X
Oak Shores	SLU-1.3		X	X
Oceano	SLU-1.2, OCE-1	X	X	X
Paso Robles	SLU-1.3, PRF-1	X	X	X
Pismo Beach	SLU-1.6	X	X	X
San Luis Obispo	SLU-1.1, SLU-1.2, SLO-1	X	X	X
San Miguel	SLU-1.5, SMG-1	X	X	X
San Simeon	SLU-1.1		X	X
Santa Margarita	SLU-1.4, SMV-1	X	X	X
Shandon	SLU-1.5		X	X
Templeton	SLU-1.3, TEM-1	X	X	X
Whitley Gardens	SLU-1.5			X
Woodlands	SLU-1.2			X

*Source: CAL FIRE
**Communities listed as Communities at Risk on the California Fire Alliance website: http://www.preventwildfireca.org/California-Fire-Alliance/
***Communities listed as Communities at Risk on the Office of the State Fire Marshal website: http://osfm.fire.ca.gov/fireplan/fireplanning_communities_at_risk
****Communities listed as Local Community at Risk in Appendix 1

SECTION IV: STRATEGIC POLICY MATRICES

EDUCATION

The goal of the Education section is to prepare response organizations, communities, the public, and policy makers regarding appropriate community actions and interactions to reduce the unwanted impacts of fires in the wildland urban interface.

Strategic Policy	Benefits of the Project to the Community	Category	Timeline	ID
Educate citizens of how to achieve contemporary WUI (wildland-urban interface) code compliance in retrofits/cost: benefit ratio	• Gives Residents detailed and locally specific tools that they can use to improve preparedness. • Mitigates against potential fire impact in the community. • Reduces potentially wasteful spending.	Education	2 years	ED1
Organize a community group made up of residents and agency personnel to develop materials and communicate relevant defensible space messages.	• Creates targeted information that will be easy for residents to interpret and act upon. • Allows for important resident feedback to improve outreach efforts.	Education	2 years	ED2
Develop a local newspaper column that provides fire safety information, promotional information for fire agencies, fire announcements, and emergency planning.	• Introduces new avenue for communicating crucial information with residents. • Cost-effective.	Education	1 year	ED3
Emergency preparedness meetings. Use preparedness experts. Attend community functions and hold meetings to provide guidance for creating household emergency plans.	• Gives Residents detailed and locally specific tools that they can use to improve preparedness. • Mitigates against potential fire impact in the community.	Education	Annually	ED4
Work with Caltrans to install or utilize existing electronic message signs on major highways to notify public of extreme fire danger.	• Inform residents, commuters and tourists of extreme fire danger to reduce accidental ignitions and encourage pre-planning.	Education	2 years	ED5

Plan livestock evacuation routes and inform communities.	• Protect communities, livestock and infrastructure through increased awareness.	Education	2 years	ED6
Provide webinars for homeowners to learn about fire safe communities and property	• Cost-effective • Gives Residents detailed and locally specific tools that they can use to improve preparedness. • Mitigates against potential fire impact in the community.	Education	Annually	ED7
Targeted wildfire info workshops and education materials.	• Deliver a clear and consistent message that impacts of wildfire are far-reaching and that it is in the best interest of a diverse set of stakeholders to become involved in planning and preparing for fire.	Education	Annually	ED8
Insurance Service Office informational meetings. Representatives will speak to groups regarding ways to improve insurance ratings in the community.	• Communities can learn how to improve their insurance ratings, which will reduce insurance costs in their community by implementing wildfire prevention measures.	Education	1 year	ED9
Increase signage/replace or augment existing signage.	• Protect communities and infrastructure by raising awareness of local citizens and those traveling in the area about actions that can prevent fire.	Education	2 years	ED10

FUEL

The goal of the Fuel section is to mitigate the unwanted impacts of wildfires on communities through proper vegetation management techniques that reduce hazardous fuels and the resulting wildfire intensity.

Strategic Policy	Benefits of the Project to the Community	Category	Timeline	ID
County bike and trail system -incorporate trails into fire defense system	• Mitigates against potential fire impact in the community. • Increases emergency access. • Improves hazard mitigation and planning capabilities.	Fuel	2 years	FL1
Encourage continued grazing in parks and open space for grass/light fuel maintenance	• Reduced fire risk in areas where grazing occurs at a minimal cost to the community. • Mitigates against potential fire impact in the community.	Fuel	Annually	FL2
Encourage use of prescribed fires where ecologically sound and feasible	• Reduced fire risk in the community. • Mitigates against potential fire impact in the community. • Reduces potentially wasteful spending.	Fuel	Annually	FL3
Adopt common powerline clearance standards for WUI in LRA (Local Responsibility Area) and SRA (State Responsibility Area).	• Reduced fire risk in the community. • Improves hazard mitigation and planning capabilities.	Fuel	Annually	FL4
Develop roadside fuel treatment program.	• Mitigates against potential fire impact in the community. • Reduced fire risk in the community. • Improved road visibility.	Fuel	2 years	FL5
Establish assistance program for hazardous fuel reduction for physically or fiscally challenged parcels.	• Increase in fuel reduction. • Mitigates against potential fire impact in the community. • Reduced fire risk in the community.	Fuel	2 years	FL6

Land management agencies partner for clarity of prescribed fire use that is complementary to greenhouse gas reduction plan of CARB (California Air Resources Board).	• Cooperation with all agencies involved to minimize fire impact in the community. • Improves hazard mitigation and planning capabilities.	Fuel	Annually	FL7
Portable bio-mass generator/bio char generators that are greenhouse gas complementary	• Reduces fuel loading. • Reduced fire risk in the community. • Mitigates against potential fire impact in the community. • Reduces greenhouse gas emissions. • Energy efficient.	Fuel	1 year	FL8
Develop list of fuel treatment methodologies with cost per acre/day/ (other metric) that can be used for hazardous fuel treatment	• Reduces fuel loading. • Reduced fire risk in the community. • Mitigates against potential fire impact in the community. • Eliminates wasteful spending. • Improves hazard mitigation and planning capabilities.	Fuel	3 years	FL9
Work with Park and Open space to have some trails as 2 track for better access	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Fuel	Annually	FL10
Partnership with Sheriff (or others) on creation of inmate (or other) hand crew for fire hazard reduction crew; need not be fire crews	• Reduces fuel loading. • Mitigates against potential fire impact in the community. • Cost-effective.	Fuel	Annually	FL11
Create Sustainable programs for creating Defensible Space at the parcel Level.	• Will ensure that defensible space actions are sustained in all communities. • Reduces fuel loading. • Mitigates against potential fire impact in the community.	Fuel	2 years	FL12

PLANNING

The goal of the Planning section is to mitigate the unwanted impacts of wildfires on communities through community planning (including new resilient community design, retrofitting existing communities, and community recovery from the impact of fire), response planning, evacuation planning, and preparedness planning for responders, communities, and individuals and animals and livestock.

Strategic Policy	Benefits of the Project to the Community	Category	Timeline	ID
Make CWPP (Community Wildfire Protection Plan) format compliant with Local Hazard Mitigation Plans (LHMPs) at County, District and City levels	• Creates universal understanding of current hazard conditions in the community. • Improves hazard mitigation and planning capabilities. • Cost-effective. • Access to additional grant funding.	Planning	Every 5 years	PLN1
Make CWPP format compliant with General Plan Safety Element updates by county and city	• Creation of a uniform document that all emergency response agencies understand and work with. • Improves hazard mitigation and planning capabilities.	Planning	1 year	PLN2
Format CWPP in 2 tiers Strategic (Countywide) and Local level (by organization)	• Improves hazard mitigation and planning capabilities. • Creation of a uniform document that all emergency response agencies understand and work with. • Allows for input from local agencies while meeting the overall intent of the County document.	Planning	1 year	PLN3
CWPP serve as Wildfire component of LHMP and General Plan-element amendments	• Improves hazard mitigation and planning capabilities. • Reduces workload. • Saves time for County staff. • Cost-effective. • Allows for new grant funding opportunities.	Planning	1 year	PLN4
Utilize Mello-Roos CFD (Community Facilities Districts) for new subdivision for sustainable hazardous fuel maintenance	• Mitigates against potential fire impact in the community. • Reduces workload.	Planning	2 years	PLN5

Add hyper spectral imaging capability to future aerial photography flights	• Improves hazard mitigation and planning capabilities.	Planning	1 year	PLN6
Analyze Playing with fire ignitions and focus education programs at vicinity schools	• Cost-effective. • Reduced fire risk in the community.	Planning	1 year	PLN7
Utilize a countywide standard and method for continued data gathering and risk analysis	• Improves hazard mitigation and planning capabilities.	Planning	1 year	PLN8
Where road system antiquated and does not provide for proper evacuation or two way flow, require removal of obstructions or upgrade to minimum 2 lanes road system over time	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Planning	Annually	PLN9
Ensure project sustainability.	• Cost-effective. • Reduced fire risk in the community. • Improves hazard mitigation and planning capabilities.	Planning	Annually	PLN10
Form a task force to do parcel level inspection work to enhance model; utilize portable data collection and ARCGIS (geographic information system) as analysis tools.	• Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Planning	1 year	PLN11

Improve partnerships across county boundaries.	• Improves hazard mitigation and planning capabilities.	Planning	Annually	PLN12
Add hyperspectral and LiDAR (Light Detection and Ranging) imaging to periodic aerial photography flights.	• Improves hazard mitigation and planning capabilities.	Planning	Annually	PLN13
Continue support for and possible expansion of the Early Warning Wildfire Detection Camera System.	• Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Planning	2 years	PLN14
Continually evaluate communities at risk and keep them up to date with CA state and federal registries as additional data from state, federal, and local resources become more available.	• Improves hazard mitigation and planning capabilities.	Planning	Annually	PLN15

RESPONSE

The goal of the Response section is to mitigate the unwanted impacts of wildfires on life, property and resources by having an efficient and effective response that includes properly trained personnel, appropriate equipment, and a community prepared to take appropriate action or evacuation.

Strategic Policy	Benefits of the Project to the Community	Category	Timeline	ID
Define Safe Refuge Areas and establish maintenance program in WUI areas where fire behavior and evacuation timing is problematic	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Response	Annually	RSP1
Identify carless population/evacuation assistance needed locations	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Response	1 year	RSP2
Require evacuation time modeling for all WUI areas	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Response	2 years	RSP3
Develop mutually beneficial water storage for fire and livestock/wildlife	• Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Response	2 years	RSP4
Develop WUI preplans and accompanying Evac plans for all WUI areas in SLO County using standardized format	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Response	Annually	RSP5
Create secondary accesses in communities that have none and poor road systems	• Increases emergency access. • Mitigates against potential fire impact in the community. • Improves hazard mitigation and planning capabilities.	Response	3 years	RSP6

Obtain additional helicopters / air resources for suppression	• Increases emergency access. • Mitigates against potential fire impact in the community.	Response	2 years	RSP7
Develop a coordinated approach between fire jurisdictions and water supply agencies to identify needed improvements to the water distribution system.	• Improve fire-fighting response if water is more readily available or closest locations could be identified on a GIS map on a tablet/computer.	Response	2 years	RSP8
Encourage sharing of water sources in areas where residential water supplies may be low or non-existent during periods of drought or when wells/springs have run dry.	• Encouragement and assistance from Fire Safe Council can provide a catalyst for action.	Response	3 years	RSP9
Add large capacity water storage tanks and hydrants where Open Space and Park Agencies establish trail head parking areas, operating facilities, and camping areas.	• Alleviates public and agency concern for limited water supply in remote areas. • Mitigates against potential fire impact in the community.	Response	5 years	RSP10
Where possible encourage setting up water sources with multiple uses (e.g. fire suppression and wildlife water, cattle water, etc)	• Provides for use of livestock and wildlife water tanks that could be utilized for fire protection. • Mitigates against potential fire impact in the community.	Response	Annually	RSP11
Investigate potential for use of drones to assess and monitor wildfire.	• Drones could be a useful tool for the monitoring of wildfire in areas with limited access, but future research is needed to fully assess their utility and application. The fire departments could launch a pilot study to determine effectiveness of the tool.	Response	2 years	RSP12

Investigate and potentially install Fire Detection Robots to alert departments of a fire start in remote areas.	• Uses technology for single-tree wildfire detection solution that help forestry agencies and fire protection professionals manage the risks of fire damage cost-effectively.	Response	2 years	RSP13
Implement County wide program to replace existing house number markers with reflective markers that meet consistent standard.	• Improves fire response times and assists out-of-town responders who are not familiar with the local area, especially at night.	Response	2 years	RSP14
Develop best practices for educating and protecting the public from the negative health effects of smoke and ash.	• Reduces the potential fire impact in the community. • Improves public access to health protective information and resources.	Response	Annually	RSP15

IGNITION RESISTANCE

The goal of the Ignition Resistance section is to eliminate or mitigate structural ignitions from radiant heat, flame contact, or embers from wildland urban interface fires.

Strategic Policy	Benefits of the Project to the Community	Category	Timeline	ID
Retrofit / Eliminate flammable roofs	• Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	Annually	IGRS1
Identify all WUI areas (including FHSZ [Fire Hazard Severity Zone] VH, H, and M in LRA and SRA); standardize regulations/standards /codes in all WUI areas	• Improves hazard mitigation and planning capabilities.	Ignition Resistance	2 years	IGRS2
Encourage/require retrofit to achieve contemporary WUI codes when remodeling beyond X %	• Cost-effective. • Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	Annually	IGRS3
Adopt common defensible space standards throughout the county	• Improves hazard mitigation and planning capabilities. • Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	2 years	IGRS4
Adopt landscape standards for allowed/dis-allowed plant landscape materials	• Improves hazard mitigation and planning capabilities. • Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	1 year	IGRS5
Develop landscape contractor maintenance program for right plant right place and maintenance	• Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	1 year	INRS6

Promote Firewise Community recognition program countywide; consider SLO amendments to Fire wise; partner with Community Emergency Response Team (CERT) and Neighborhood Watch	• Improves hazard mitigation and planning capabilities. • Reduced fire risk in the community.	Ignition Resistance	2 years	INRS7
Interactive tool for citizens to use on line, ID their property and what hazard/risks exist and mitigations they can apply to improve their survivability	• Gives Residents detailed and locally specific tools that they can use to improve preparedness. • Improves hazard mitigation and planning capabilities • Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	2 years	IGRS8
Create a countywide defensible space ordinance for parcels below certain size acreage (parcel size: 2 acres?), if not cleared by owner then jurisdiction will clear	• Improves hazard mitigation and planning capabilities. • Reduced fire risk in the community. • Mitigates against potential fire impact in the community.	Ignition Resistance	2 years	IGRS9
Public education program for embers and problems associated with embers, property hygiene, etc.	• Cost-effective. • Gives Residents detailed and locally specific tools that they can use to improve preparedness. • Reduced fire risk in the community.	Ignition Resistance	1 year	IGRS10
Implement spring community yard clean-up days.	• Would encourage large numbers within the community to carry-out mitigation measures and implementation of defensible space. • Reduced fire risk in the community.	Ignition Resistance	Annually	IGRS11
Assess and improve accessibility to property. Weekend program to inform homeowners about emergency response access.	• Inform homeowners about the importance of keeping driveways accessible to fire trucks and emergency responders. • Mitigates against potential fire impact in the community.	Ignition Resistance	2 years	IGRS12

Explore development of a certificate of compliance program for home owners that implement and maintain Defensible Space. Work with Insurance companies to determine viability of the program.	• There may be a possibility to combine the assessments carried out by County Fire with insurance standards in order to incentivize defensible space practices in the WUI. • Mitigates against potential fire impact in the community.	Ignition Resistance	1 year	IGRS13
Develop building/general contractor education program for "Reducing Structural Ignitability".	• Educate property owners, architects and contractors in appropriate building designs/ maintenance in WUI areas. • Mitigates against potential fire impact in the community.	Ignition Resistance	2 years	IGRS14

Funding provided by grants from California Department of Forestry and Fire Protection and the Cooperative Fire Program of the U.S. Forest Service, Department of Agriculture, Pacific Southwest Region, through the San Luis Obispo County Fire Safe Council and California Fire Safe Council.

APPENDIX

COMMUNITIES AT RISK

Community*	CWPP Planning Area	County Planning Sub Area	Local Community at Risk****
Adelaida	SLU-1.3	North County	X
Arroyo Grande	SLU-1.2, AYG-1	South County	X
Asuncion	SLU-1.3	North County	X
Atascadero	SLU-1.3, SLU-1.4, ATA-1	North County	X
Avila Beach	SLU-1.6	San Luis Obispo, San Luis Bay Coastal	X
Bee Rock	SLU-1.3	North County	X
Bern	SLU-1.5	North County	X
Blacklake	SLU-1.2	South County	X
Bromela	SLU-1.2	South County Coastal	X
Cal Poly State University	SLU-1.1	San Luis Obispo	X
California Valley	SLU-1.4	North County	X
Callender-Garrett	SLU-1.2	South County, South County Coastal	X
Cambria	SLU-1.1, CMB-1	North Coast	X
Cambria Pines	SLU-1.1, CMB-1	North Coast	X
Cayucos	SLU-1.1	Estero	X
Cholame	SLU-1.5	North County	X
Chorro	SLU-1.1	San Luis Obispo	X
Creston	SLU-1.5	North County	X
Creston Hills Ranch	SLU-1.5	North County	X
Edna	SLU-1.2	South County	X
Garden Farms	SLU-1.4	North County	X
Ground Squirrel Hollow	SLU-1.5	North County	X
Grover Beach	SLU-1.2, GRB-1	South County Coastal	X
Halcyon	SLU-1.2, HAL-1	South County	X
Harmony	SLU-1.1	North Coast	X
Huasna	SLU-1.2	South County	X
Independence Ranch	SLU-1.5	North County	X
Lake Nacimiento	SLU-1.3	North County	X
Lake Nacimiento – Cal Shasta	SLU-1.3	North County	X
Lake Nacimiento – Heritage Ranch	SLU-1.3	North County	X
Lake Nacimiento – Rancho del Lago	SLU-1.3	North County	X
Lake Nacimiento – Running Dear	SLU-1.3	North County	X
Lake Nacimiento – South Shore Village	SLU-1.3	North County	X
Lake Nacimiento – Tri Counties Club	SLU-1.3	North County	X
Linne	SLU-1.3	North County	X
Los Berros	SLU-1.2	South County	X
Los Osos-Baywood Park	SLU-1.1	Estero	X
Los Osos-Baywood Park – Cuesta-by-the-Sea	SLU-1.1	Estero	X
Los Ranchos	SLU-1.2	South County	X
Morro Bay	SLU-1.1, MRB-1	Estero	X
Nipomo	SLU-1.2	South County	X

Nipomo Mesa	SLU-1.2	South County	**X**
Oak Shores	SLU-1.3	North County	**X**
Oceano	SLU-1.2, OCE-1	South County Coastal	**X**
Palo Mesa	SLU-1.2	South County Coastal	**X**
Paso Robles	SLU-1.3, PRF-1	North County	**X**
Pismo Beach	SLU-1.6	San Luis Bay Coastal	**X**
Pismo Beach – Sunset Palisades	SLU-1.6	San Luis Bay Coastal	**X**
Ranchita Estates	SLU-1.2	South County	**X**
San Luis Obispo	SLU-1.1, SLU-1.2, SLO-1	San Luis Obispo	**X**
San Miguel	SLU-1.5, SMG-1	North County	**X**
San Simeon	SLU-1.1	North Coast	**X**
Santa Margarita	SLU-1.4, SMV-1	North County	**X**
Santa Margarita – California Valley	SLU-1.4, SMV-1	North County	**X**
Santa Margarita – Park Hill	SLU-1.4, SMV-1	North County	**X**
Santa Margarita – Pozo	SLU-1.4, SMV-1	North County	**X**
Shandon	SLU-1.5	North County	**X**
Squire Canyon	SLU-1.6	San Luis Obispo	**X**
Templeton	SLU-1.3, TEM-1	North County	**X**
Wellsona	SLU-1.3	North County	**X**
Whitley Gardens	SLU-1.5	North County	**X**
Woodlands	SLU-1.2	South County	**X**

LINKS

http://cdfdata.fire.ca.gov/fire_er/fpp_planning_cafireplan
http://resources.ca.gov/ceqa/
https://en.wikipedia.org/wiki/San_Luis_Obispo_County,_California
https://www.slocounty.ca.gov/
https://www.co.monterey.ca.us/
https://www.kerncounty.com/
http://www.countyofsb.org/
https://www.fs.fed.us/
https://www.blm.gov/
https://www.fs.usda.gov/lpnf/
https://en.wikipedia.org/wiki/La_Panza_Range
https://en.wikipedia.org/wiki/Garcia_Wilderness
https://en.wikipedia.org/wiki/Santa_Lucia_Range
https://en.wikipedia.org/wiki/Carrizo_Plain
https://calfireslo.org/Documents/Plans/UnitFirePlan/Maps/Figure_1_Land_Ownership.pdf
https://www.google.com/publicdata/explore?ds=kf7tgg1uo9ude_&met_y=population&idim=county:06079&dl=en&hl=en&q=population+graph+of+san+luis+obispo+county
https://www.census.gov/quickfacts/table/PST045216/06079
https://tigerweb.geo.census.gov/TIGERweb2010/
http://www.arroyogrande.org/
http://www.atascadero.org/
http://www.prcity.com/
http://www.grover.org/
http://www.morro-bay.ca.us/
http://www.pismobeach.org/
http://www.slocity.org/
https://www.nwcg.gov/term/glossary/fuel
https://www.nwcg.gov/term/glossary/wildland-urban-interface-%28wui%29
https://www.nwcg.gov/term/glossary/rural
https://www.nwcg.gov/glossary/a-z
http://www.preventwildfireca.org/California-Fire-Alliance/
http://www.gpo.gov/fdsys/pkg/BILLS-108hr1904enr/pdf/BILLS-108hr1904enr.pdf
https://www.calpoly.edu/
https://en.wikipedia.org/wiki/Terrain
https://en.wikipedia.org/wiki/Aspect_(geography)
https://en.wikipedia.org/wiki/Grade_(slope)
http://biodiversity.ca.gov/Bioregions/centralcoast.html
https://en.wikipedia.org/wiki/Native_plant
https://en.wikipedia.org/wiki/Endemism
https://en.wikipedia.org/wiki/Introduced_species
https://en.wikipedia.org/wiki/Limiting_factor
https://www.wildlife.ca.gov/Data/CWHR
http://www.dfg.ca.gov/biogeodata/cwhr/
https://calfireslo.org/Documents/Plans/UnitFirePlan/Maps/Figure_4_Fuel_Models.pdf
http://www.suddenoakdeath.org/
https://nature.berkeley.edu/garbelottowp/?page_id=152
https://en.wikipedia.org/wiki/Fusarium_circinatum
https://ufei.calpoly.edupitch_canker/index.lasso
https://en.wikipedia.org/wiki/Foehn_wind
http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103
https://famit.nwcg.gov/applications/RAWS

https://mesowest.utah.edu/
https://calfireslo.org/Documents/Plans/UnitFirePlan/Maps/Figure_6_Topography.pdf
https://frap.fire.ca.gov/projects/fire_data/fire_perimeters_index
https://slu.cartodb.com/viz/fbffa9ae-ef8a-11e4-bd1e-0e9d821ea90d/embed_map
https://slu.carto.com/viz/e4e70f5a-ed0f-11e4-a2f4-0e8dde98a187/embed_map
https://frap.fire.ca.gov/
https://frap.fire.ca.gov/assessment/2015/assessment2015
http://cdfdata.fire.ca.gov/fire_er/fpp_planning_car
http://nhd.usgs.gov/gnis.html
http://www.preventwildfireca.org/California-Fire-Alliance/
https://osfm.fire.ca.gov/fireplan/fireplanning_communities_at_risk