

SECTION I: COUNTY OVERVIEW

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

A. COUNTY DESCRIPTION

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 270,000, and includes seven incorporated cities. Fire protection in the County is provided by numerous agencies, including the California Department of Forestry and Fire Protection (CAL FIRE), the San Luis Obispo County Fire Department, and eighteen local fire departments/districts providing fire protection for incorporated cities, communities, and facilities.

LAND OWNERSHIP

Over 73 percent of the land within San Luis Obispo County is privately owned. Other significant ownership includes United States Forest Service (USFS) and Bureau of Land Management (BLM) lands. The Los Padres National Forest (LPNF) 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. Figure 1 presents the distribution of land ownership in San Luis Obispo County.

Table 1. Land Ownership Distribution in San Luis Obispo County

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

*Source: CalMapper 2012

POPULATION AND HOUSING

The estimated population of San Luis Obispo County is 269,637 people within 7 incorporated cities and unincorporated County lands (US Census Bureau 2010). The County includes approximately 117,315 housing units (US Census Bureau 2010). The largest population center is the City of San Luis Obispo, with approximately 45,119 people, followed by the cities of Paso Robles (29,793 people) and Atascadero (28,310 people). Table 2 presents the population distribution in the County within incorporated cities, unincorporated Census-designated places, and unincorporated rural portions of the County.

Table 2. Communities and Population Distribution in San Luis Obispo County

Community*	Population	Percentage
Incorporated Cities		
Arroyo Grande	17,252	6.40%
Atascadero	28,310	10.50%
El Paso de Robles (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)		
Avila Beach	1,627	0.60%
Callender (includes Woodlands)	1,838	0.68%
Cambria	6,032	2.24%
Cayucos	2,592	0.96%
Creston	94	0.03%
Edna (includes Los Ranchos)	1,670	0.62%
Garden Farms	386	0.14%
Lake Nacimiento (includes Oak Shores)	2,748	1.01%
Los Berros	641	0.24%
Los Osos (includes Baywood Park)	14,276	5.29%
Nipomo (includes Blacklake)	17,644	6.54%
Oceano	7,286	2.70%
San Miguel	2,336	0.87%
San Simeon	462	0.17%
Santa Margarita	1,259	0.47%
Shandon	1,295	0.48%
Templeton	7,674	2.85%
Whitley Gardens	285	0.11%
Unincorporated Communities (not Census-designated Places)	47,973	17.79%

*Source: U.S. Census Bureau 2010

The distribution of the population in San Luis Obispo County creates several different conditions, each of which is unique to pre-fire planning. Urban areas are predominantly built-up environments with little or no exposure to wildland vegetation (fuels). The area where urban development abuts non-maintained wildland fuels is known as the Wildland Urban Interface (WUI). Rural areas are more typically characterized by a condition known as a Wildland Urban Intermix, where the density of housing units and structures is relatively low and the space between consists of wildland fuels capable of propagating fire.

Wildland Urban Interface

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

WUI Disadvantages:

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

Wildland Urban Intermix

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

Intermix Advantages:

- Low housing density
- Diversity in water supply systems

Intermix Disadvantages:

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

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

Another important factor in evaluating the population in San Luis Obispo County is the temporal shift in population density, which has implications for firefighter or emergency response and fire risk reduction project planning. Temporal shifts in population can occur across multiple scales, including daily, weekly, seasonally, or annually. For example, the population at California Polytechnic State University, San Luis Obispo (Cal Poly) fluctuates on a daily basis during the academic year with an increased population of students, faculty, and staff during daytime hours. Additionally, the population at Cal Poly fluctuates on an annual basis, with peak populations occurring during the academic year between September and June and reduced populations during the summer months.

Other areas of the County are subject to population fluctuations at various scales, including an influx of tourists to coastal communities during summer months, increased populations during daytime/work hours in larger urban areas, and increased human presence in wildland areas during the summer months for recreation purposes. Consideration of these temporal effects is important for planning strategic fuel treatment projects intended to protect communities or resources, allocating emergency response personnel, and reducing potential ignition sources.

Figure 2 presents the population distribution in San Luis Obispo County.

VEGETATION/FUELS

Due to the county's varied climate there is diverse population of plants. Plants are categorized as native plants (naturally-occurring prior to European settlement) or non-native plants which have been transported into San Luis Obispo County from other regions or ecosystems. All plants and vegetation types have varied limits to the environmental conditions they can grow known as "limits of tolerance". The environmental factors that affect these limits of tolerance 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 CWHR vegetation types identified for San Luis Obispo County and includes acreages and percentage cover for the County.

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 2012

In addition to weather and topography, vegetation (or fuel) plays a major role in affecting 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/fuels distribution within the County is characterized by 32 different vegetation types which have been classified into 14 different fuel models (FRAP 2012), as presented in Table 4. Dominant vegetative cover within San Luis Obispo County is herbaceous, or annual grassland cover (46.9%), 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. Figure 3 presents the distribution of fuels in San Luis Obispo County.

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 2012

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

As described, vegetation plays a significant role in fire behavior. A critical factor to consider is the dynamic nature of vegetation types. Fire presence and absence at varying cycles or regimes affects vegetation type succession. Succession of vegetation types, most notably the gradual conversion of shrublands to grasslands with high fire frequency and grasslands to shrublands with fire exclusion, is highly dependent on fire regime. Biomass and associated fuel loading will increase over time, assuming that disturbance or fuel reduction efforts are not implemented.

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

Sudden Oak Death

The climate in the San Luis Obispo County coastal region supports the SOD pathogen (*Phytophthora ramorum*), which affects rhododendron (*Rhododendron* spp.), redwood (*Sequoia sempervirens*), and oaks (*Quercus* spp.). The SOD pathogen requires moist environments for survival and spore dissemination. The SOD pathogen infects the water flow system of susceptible trees and shrubs, eventually blocking this flow and resulting in rapid plant/tree mortality. Precautions must be used when handling infected plant material and/or tools used in trimming/removal of infected wood. More information on SOD and specifics on susceptible plant species can be found via the website for the California Oak Mortality Task Force: <http://www.suddenoakdeath.org/index.html>.

Pine Pitch Canker

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

priorities to limit the spread of pine pitch canker in California. More information on pine pitch canker can be found via the Pine Pitch Canker Task Force: http://frap.cdf.ca.gov/pitch_canker/.

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

TERRAIN

Topography is essentially the lay of the land and is commonly characterized by measurements of slope, elevation, and aspect. The topography 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 is the Irish Hills, situated along the coastline between the communities of Los Osos to the north and Avila Beach to the south.

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

Figure 4 presents the topography of San Luis Obispo County.

WEATHER

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

Terrain contributes significantly to the weather in the County. For example, the terrain in the southern portion of the County can affect intensity of north and east wind events resulting in a light "Sundowner" (Blier 1998) effect on the coast side of the range. The area east of Nipomo is known by firefighters as an area of unpredictable wind changes, as the influence of the Pacific Ocean and the inland valleys converge. This area was the location of the tragic Spanish Ranch Fire, which killed 4 CAL FIRE firefighters in 1979, and where two near-tragedies occurred during the 1997 Logan Fire. A contributing factor on both these fires was "a sudden wind shift".

The La Panza, Garcia, Santa Lucia, and Caliente Ranges intercept a large portion of the rain bearing clouds moving westward 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 three weather zones. Using weather factors such as wind, humidity, and temperature, the three 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 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 fuel moisture data and is available at the following link:

http://72.32.186.224/nfmd/public/states_map.php?state=CA

Remote Automated Weather Stations

CAL FIRE/SLO utilizes a system of Remote Automated Weather Stations (RAWS) to acquire site specific weather data. The RAWS are self-contained weather stations which sample weather on a periodic basis and then transfer this information via satellite to a federal server. This weather data can then be used for emergency responses and project planning. There are currently five stations located within San Luis Obispo County. Three of these stations are owned and maintained by CAL FIRE/SLO and two are owned and maintained by the U.S. Forest Service. These stations have been strategically placed to provide maximum coverage for the most critical areas in the County.

RAWS weather station data is maintained on-line and is available at the following link:

http://raws.wrh.noaa.gov/cgi-bin/roman/raws_ca_monitor.cgi?state=NWCC&rawsflag=2

FIRE HISTORY

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

Based on historical fire perimeter data (CalMapper 2012), repeated burning is observed within the County primarily in the Santa Lucia Range. Land ownership (US Forest Service) and fuel type (chaparral) appear to be significant factors affecting the geographic distribution of fires in San Luis Obispo County. Grass-dominated lands in the eastern portion of the County exhibit small, well-dispersed burn perimeters, while the heavier chaparral fuels in the central-southern portion of the County (Santa Lucia Range) exhibit a repeated burn pattern, larger fire perimeters, and a more concentrated distribution of fire perimeters. The average interval between large wildfires in excess of 20,000 acres burning within San Luis Obispo County is 7.3 years, with intervals as short as 1 year and as long as 17 years. Table 5 presents notable fires

burning over 20,000 acres in San Luis Obispo County. Figure 5 presents the fire history in San Luis Obispo County.

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

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

*Source: CalMapper 2012

IGNITION HISTORY

Ignition data for San Luis Obispo County was analyzed for a 5-year period (2005-2010) to evaluate ignition trends and problems within the County. This data set includes 1,694 ignition points and includes an identification of fire cause. Table 6 presents the ignition history for San Luis Obispo County between 2005 and 2010, classified by fire cause.

Table 6. Ignition History for San Luis Obispo County (2005-2010)

Ignition Cause*	Number	Percentage
Arson	62	3.7%
Campfire	11	0.6%
Debris Burning	64	3.8%
Equipment Use	275	16.2%
Lightning	10	0.6%
Miscellaneous	417	24.6%
Playing with Fire	123	7.3%
Powerline	38	2.2%
Railroad	1	0.1%
Smoking	21	1.2%
Undetermined	229	13.5%
Unknown	246	14.5%
Vehicle	197	11.6%

*Source: CAL FIRE/SLO 2012

The 5-year ignition history for San Luis Obispo County identifies trends in ignition type, with the majority of ignition causes classified as miscellaneous, undetermined, or unknown. Vehicle and equipment use 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, out of the 1,694 ignition points included in the data set, 761 (approximately 45%) are located within 20 feet of a road. Nearly 25% of these 761 ignitions adjacent roadways occur within 20 feet of highways in the County.

High density of ignitions is also observable within and adjacent urban areas, with notable concentrations observed near the communities of Cambria, Lake Nacimiento, Paso Robles, Atascadero, Los Osos, San Luis Obispo, Avila Beach, Arroyo Grande, and on the Nipomo mesa. This concentration of ignitions in urban areas and along transportation corridors emphasizes the importance of public education and fire prevention activities, including road-side fuel treatments and strategic management of flashy fuels (e.g. grasses) in WUI and Wildland Urban Intermix areas. Figure 6 presents the ignition history from 2005 to 2010 and the associated ignition density for San Luis Obispo County.

FIRE THREAT

As observed in the fire history data for San Luis Obispo County, land ownership and fuel type strongly influence the location and frequency of burning. The location of the Los Padres National Forest (LPNF) within the Santa Lucia Range presents a risk to adjacent communities based on its burn history and the relative lack of fuel reduction activities on the LPNF. Additionally, wildfires originating on or burning through the LPNF have posed significant risk to communities in San Luis Obispo County. For example, the 1985 Las Pilitas Fire burned from the LPNF into a portion of the City of San Luis Obispo and the 1994 Highway 41 Fire burned from the LPNF into the cities of Atascadero and San Luis Obispo.

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 cities of San Luis Obispo and Atascadero.

While no large fires are included in the fire history data set 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.

B. REGULATORY FRAMEWORK

The following sections describe existing environmental regulations relevant to fuels management activity in San Luis Obispo County.

ENVIRONMENTAL REVIEW

Proposed fuel treatment projects on federal land will require compliance with the National Environmental Policy Act (NEPA). Projects implementing a CWPP recommendation on federal land within the WUI are afforded expedited NEPA review. NEPA review is typically conducted by the federal agency responsible for land ownership (e.g. USFS, BLM).

Proposed fuel reduction projects on non-federal lands may require compliance with the California Environmental Quality Act (CEQA) or the California Forest Practice Rules (CFPR). Private landowners conducting defensible space projects under Public Resource Code (PRC) 4291 guidelines are not subject to CEQA review requirements. Non-defensible space fuel treatment projects on non-federal lands that are discretionary and are to be carried out or approved by public agencies would be subject to CEQA review and documentation (CEQA Guidelines 21080(a)). CEQA review for non-defensible space fuel reduction projects should be instituted during the project planning process.

The California Forest Practice Rules may be applicable to fuel reduction efforts on timberlands in San Luis Obispo County. CAL FIRE is responsible for administering Timber Harvesting Regulations conducted throughout California on all non-federal timberland. This applies regardless of zoning and includes lands inside of city limits. The removal of California native "commercial" timber species from forested lots, areas of pending new construction, and from around existing structures is included under these regulations. A CAL FIRE forester should be contacted to verify if tree removal is subject to the California Forest Practice Rules. Depending on the situation and based on Title 14, California Code of Regulations and the Public Resources Code, a Timber Harvest Plan (THP), a Timberland Conversion Permit (TCP), or another type of timber harvest plan exemption or emergency document may be required.

Note: It is the responsibility of planners and those implementing projects to ensure that all environmental compliance and permitting processes are met as per the California Environmental Quality Act, PRC, § 21000 and 14 CCR §15000 (CEQA Guidelines). It is very important to work with public agencies to determine whether CWPP projects necessitate environmental review.

AGENCIES

Regulatory permits may also be required for fuel treatment actions that would adversely impact riparian areas under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), the Regional Water Quality

Control Board (RWQCB), and the California Department of Fish and Game (CDFG). For fuel treatment projects, it is anticipated that the ACOE may require a fill permit under section 404 of the Clean Water Act. CDFG may require a streambed alteration agreement under Section 1602 of the California Fish and Game Code for such projects and the RWQCB may require a water quality certification under Section 401 of the Clean Water Act. Additionally, it is anticipated that the ACOE would consult with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the federal Endangered Species Act (ESA) during the 404 permitting process for potential impacts to special-status plants/wildlife and their habitats. Applications for each of these regulatory permits can be processed concurrently; however, some may take longer than others to process and obtain. Consultation with a qualified biologist and initiating any necessary seasonal surveys and early coordination with the regulatory agencies is recommended.

CALIFORNIA COASTAL COMMISSION

To be completed

Coastal Commission – County LCP

Morro Bay

Pismo Beach

Grover Beach

Sweet Springs Marsh

Otto/South Bay

SAN LUIS OBISPO COUNTY GENERAL PLAN AND ORDINANCES

The San Luis Obispo County General Plan identifies the County's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development. It provides a framework for government decision-making and guides development in the County. Several components of the General Plan relate to fire planning and vegetation management, including the Safety Element, the Conservation and Open Space Element, and the Land Use Element, amongst others. The San Luis Obispo County General Plan documents are provided [here](#).

In addition to the County General Plan, other County Ordinances, Specific Plans, Area Plans, and Design Plans may affect fire planning and vegetation management in the County. Other relevant County documents are provided [here](#).

LOCAL CITY AND DISTRICT PLANS, REGULATIONS, AND ORDINANCES

Local City and District plans, regulations, and ordinances may also affect fire planning and vegetation management activities. The following links are provided to identified documents, however, verification of regulations should be completed prior to initiation of any project.

San Luis Obispo (City) General Plan

San Luis Obispo (City) Ordinances

[More](#)

C. COUNTY FIREFIGHTING CAPABILITIES

Fire management responsibilities in San Luis Obispo County are currently distributed between the San Luis Obispo County Fire Department, CAL FIRE, [the United States Forest Service \(USFS\)](#), [the Bureau of Land Management \(BLM\)](#), and local fire departments. The following provides more detail on the responsibilities of each of the aforementioned agencies.

SAN LUIS OBISPO COUNTY FIRE

The San Luis Obispo County Fire Department contracts with the California Department of Forestry and Fire Protection, (CAL FIRE), which protects most unincorporated areas within the County. The CAL FIRE/San Luis Obispo County Fire Department (CAL FIRE/SLO) responds to emergencies and other requests for assistance, plans for and takes action to prevent emergencies and to reduce their impact, coordinates regional emergency response efforts, and provides educational outreach for the community.

CAL FIRE

As noted, the California Department of Forestry and Fire Protection, (CAL FIRE) provides fire protection for State Responsibility Areas (SRA) and serves as the San Luis Obispo County Fire Department, protecting most unincorporated areas within the County. In addition, CAL FIRE/San Luis Obispo County Fire Department (CAL FIRE/SLO) provides fire protection under contract for the City of Pismo Beach and the communities of Los Osos and Avila Beach.

Facilities/Resources

CAL FIRE/SLO initial attack resources include approximately 180 full-time state employees, supplemented by as many as 100 state seasonal firefighters, 300 County paid-call firefighters (PCF) and reserve firefighters, and 120 state inmate firefighters. CAL FIRE/SLO facilities include 9 CAL FIRE stations (6 of which are jointly operated with San Luis Obispo County Fire), 9 San Luis Obispo County Fire Stations, 2 Pismo Beach Fire Stations (1 of which is jointly operated with San Luis Obispo County Fire), 1 South Bay (Los Osos) Fire Station, 1 CAL FIRE Air Attack Base, 1 CAL FIRE Conservation Camp, and 1 CAL FIRE Youth Conservation Camp. Additionally, fire response apparatus includes:

CAL FIRE/SLO

- 12 Engines (plus four reserve engines)
- 3 Bulldozer/transport units
- 1 Mobile Field Kitchen and Support Trailer
- 2 Air Tankers PERSONNEL
- 1 Air Attack Plan

San Luis Obispo County Fire Department

- 13 BLS Engines/2 ALS Engines (plus four reserves)
- 1 OES Engine
- 4 Water Tenders
- 2 Aircraft Crash/Rescue
- 6 Rescues (plus one reserve)
- 2 Fire Boats, 5 Rescue Boats
- 1 Patrol
- 1 Mobile Air Unit
- 1 Hazardous Materials Unit

City of Pismo Beach Fire Department

- 3 BLS Engines
- 1 BLS Rescue (plus one reserve and one Lifeguard truck)

Paso Robles Air Attack Base

Established in 1968, the Paso Robles Air Attack Base responds to an average of 350 calls per year. Staff at the base consists of one battalion chief, two fire captains, one fire apparatus engineer, and five firefighters. The complement of aircraft located at Base includes one OV-10 Bronco and two S-2T air tankers. On average, the Base pumps about 750,000 gallons of retardant a year, and with its pumps, loading pits, and equipment, the Base has a possible peak output of 300,000 gallons of retardant each day.

The Base provides initial attack for southern Monterey County, western Fresno and Kings Counties, northern Santa Barbara County and all of San Luis Obispo County: an initial attack area of approximately 6.5 million acres.

Cuesta Conservation Camp

Cuesta Conservation Camp is an inmate fire-fighting camp which was formally activated on May 1, 1962. The Camp is located approximately six miles west of San Luis Obispo on State Highway 1 on property leased from the California National Guard at Camp San Luis Obispo. Current staffing at the Camp consists of a Division Chief, twelve Fire Crew Captains, and a Heavy Equipment Mechanic. When fully staffed, the number of fire crew-eligible inmates assigned to the Camp is 100 and comprises the five fire crews (17 firefighters each). Each fire crew is trained and supervised by an experienced and competent

fire captain. Additional inmates staff in-camp positions that include a mixture of reserve firefighters and non-firefighter camp support personnel. These men work in the camp shops and/or perform maintenance, and clerical services. Additional staff at the Camp includes an office manager and two Heavy Fire Equipment Operators who staff a fire-fighting bulldozer and transport unit as well as assist with vehicle maintenance and repair.

Training

CAL FIRE/SLO maintains an active training program to be responsive to its mission, remain vigilant and flexible to change, incorporate advanced technology, and react to the external influences that challenge the human resources of the department. The backbone of the training program is its overarching coordination of many entities that deliver fire training to every type of firefighter, career or volunteer, every rank of firefighter from entry-level to certified Fire Chief, fire mechanics, and fire inspectors. Individual fire departments, community colleges, the Firefighter Joint Apprenticeship all play a vital role in developing the hands-on skills, the career foundational skills, or the management skills necessary to provide for those that provide for the public's safety.

The goal of the CAL FIRE/SLO Training Bureau is to develop and maintain a County and Unit-wide cooperative training plan that serves the needs of all agencies delivering fire, rescue, and emergency medical services within San Luis Obispo County.

U.S. FOREST SERVICE

Add, as necessary

BUREAU OF LAND MANAGEMENT

Add, as necessary

LOCAL FIRE DEPARTMENTS

Within San Luis Obispo County, there are 18 local fire departments or fire protection districts including:

[Atascadero Fire Department](#)

Atascadero State Hospital Fire Department

Avila Beach Fire Department

Camp Roberts Fire Department

Cayucos Fire Protection District

[Cambria Fire Protection District](#)

California Men's Colony Fire Department

[Five Cities Fire Authority](#) (includes the Cities of Arroyo Grande and Grover Beach and the community of Oceano)

[Guadalupe Fire Protection District](#)

Hearst Castle Fire Department

[Morro Bay Fire Department](#)

[Paso Robles Fire Department](#)

Pismo Beach Fire Department

[South Bay Fire Protection District](#)

[San Luis Obispo City Fire Department](#)

[San Miguel Fire Protection District](#)

[Santa Margarita Fire Protection District](#)

[Templeton Fire Protection District](#)

AUTOMATIC/MUTUAL AID

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

In addition to the Automatic/Mutual Aide agreements identified above, dispatch agreements also exist between CAL FIRE/SLO, Cambria Community Services District, the Cayucos Fire Protection District, the Santa Margarita Fire Protection District, the San Miguel Community Services District, the Templeton Community Services District, and CALSTAR (private air ambulance).