

1 INTRODUCTION

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1.1 PURPOSE

The California State Board of Forestry and Fire Protection (Board) proposes to initiate the Vegetation Treatment Program (VTP). The VTP is part of a comprehensive fire prevention strategy from the Board (Board, 2010) that is implemented by the Department of Forestry and Fire Protection (CAL FIRE). The key objectives of the program are to prevent loss of lives and property, reduce fire suppression costs, and protect natural resources from damaging wildfire through the use of appropriate vegetation treatments. It is important to acknowledge that the VTP is not meant to resolve all hazardous fuel conditions but rather provide a tool to address them on a voluntary basis for all stakeholders within and associated with the SRA. The VTP will exist alongside Board and CAL FIRE programs such as defensible space, fire safe development, forest improvement, and other fire prevention work. The implementation of this VTP is a discretionary action by CAL FIRE. Approval of the VTP by the Board is a “project” under the California Environmental Quality Act (CEQA), as defined in CEQA Guidelines Section 15378.

This Program Environmental Impact Report (PEIR) has been prepared to evaluate the potential environmental effects of implementing a statewide VTP. This PEIR has been prepared in compliance with CEQA and the State CEQA Guidelines. The Board is the Lead Agency for this PEIR, as defined by CEQA, and will provide policy direction and guidance to CAL FIRE in its implementation of the VTP. Other public agencies with jurisdiction over the project areas evaluated under the VTP are described below in Section 1.3 Responsible and Trustee Agencies.

The purpose, content, and procedures of a PEIR are described in State CEQA Guidelines Section 15168 and summarized below. The relevant statute and regulations guiding the preparation of the PEIR are:

- PRC Section 21000 et seq., the California Environmental Quality Act
- California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq., the State CEQA Guidelines

1.1.1 THE NEED FOR A VEGETATION TREATMENT PROGRAM

Fire is a natural process on the California landscape. It is estimated that approximately 4.45 million acres burned annually in California before the 1800s (Stephens, Martin & Clinton, 2007).

Fire regimes in many California ecosystems have been altered by land use and other anthropogenic factors since the beginning of the 19th century (Van de Water and Safford, 2011; Stephens, Martin & Clinton, 2007). Fire suppression and land use conversions have resulted in a buildup of fuels in some coniferous forest types (McKelvey et al., 1996; Miller

et al., 2009). These types of alterations are among the reasons that wildfire frequency in Northern California has increased 18 percent in the period from 1970 to 2003 (Westerling et al., 2006). Human activities have also increased ignitions and fire frequency in some chaparral vegetation types in comparison to natural fire regimes (Keeley and Fotheringham, 2003; Syphard et al., 2007). Figure 1.1-1 illustrates the increase in wildfire acreage in California since the mid-1990s.

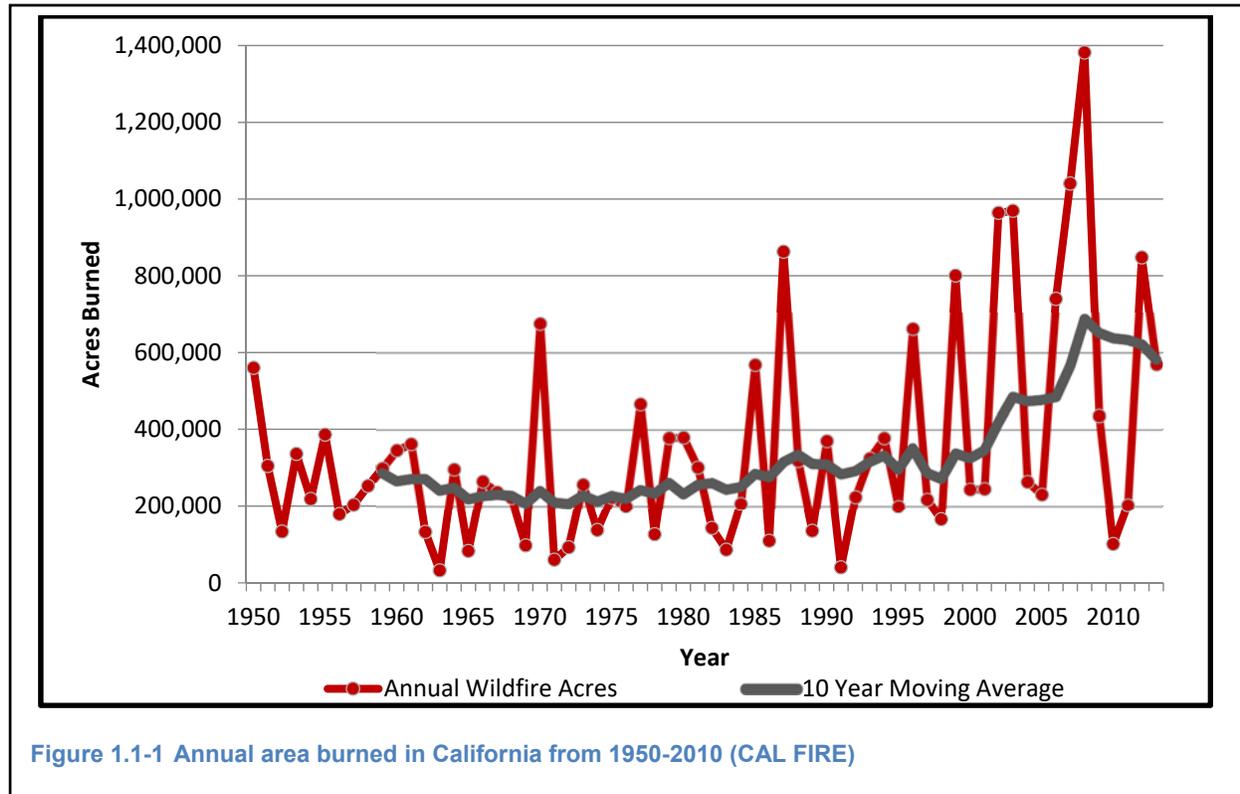
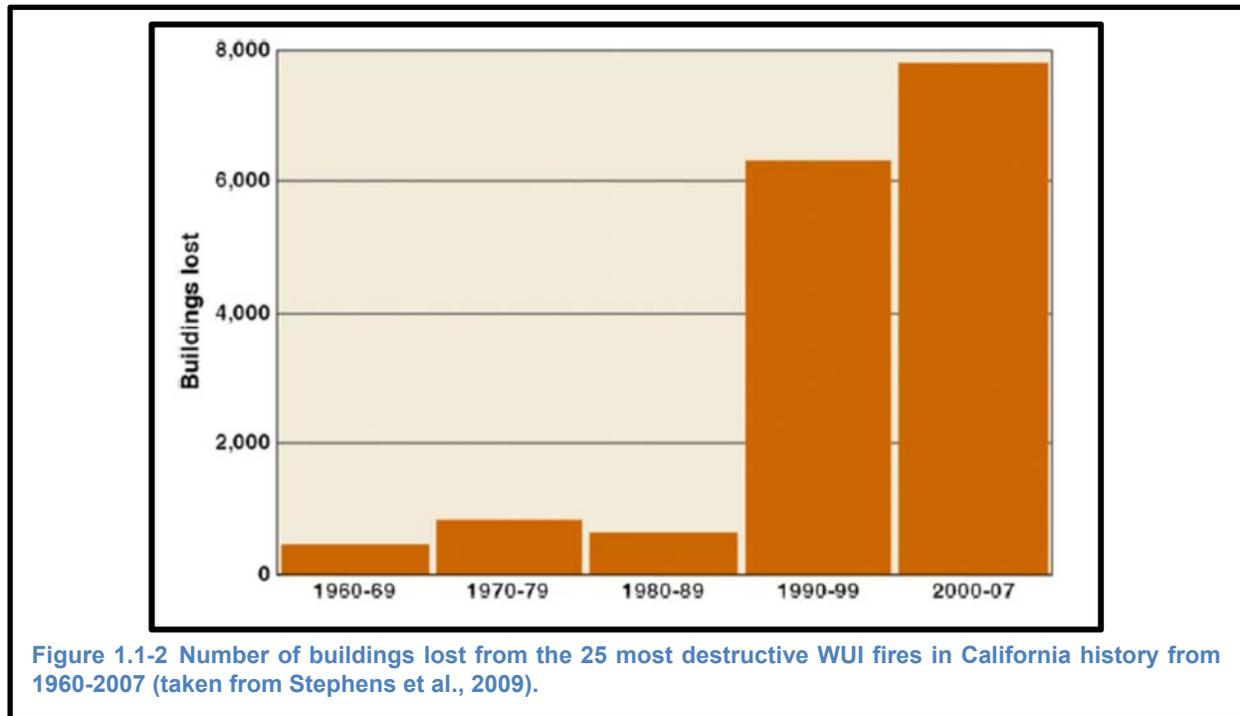


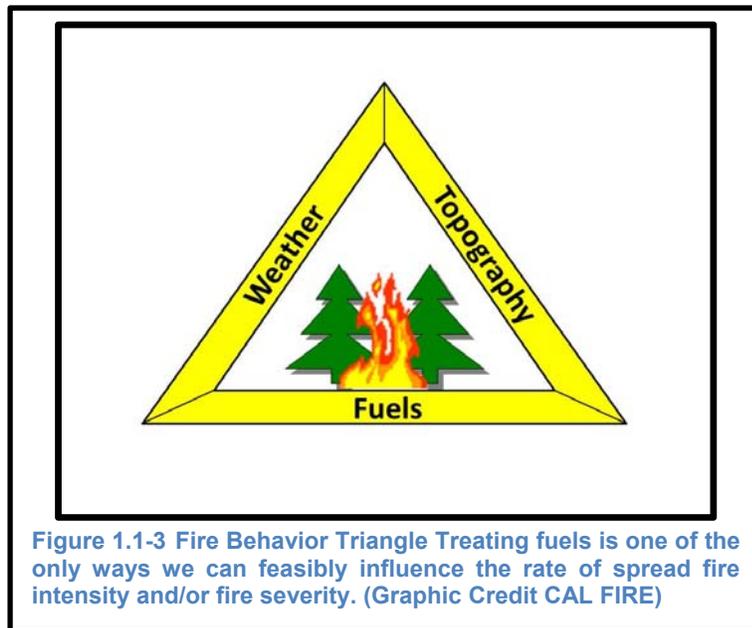
Figure 1.1-1 Annual area burned in California from 1950-2010 (CAL FIRE)

In a national-scale assessment, California was found to have three times the magnitude of wildfire-related risk for the most highly valued human and ecological resources (moderate to high density housing and municipal watersheds) than the next highest geographic area (Thompson et al., 2011). Risk due to wildfire is most acute in the wildland-urban interface (WUI), where housing losses have increased significantly during the past three decades (Figure 1.1-2; Stephens et al., 2009b). This problem is expected to grow; modeling scenarios suggest that housing within the highest wildfire hazard severity zone (i.e., very high) will increase from 640,000 to 1.2 million units by the year 2050 (Mann et al., 2014).



Climate change is another mechanism that has been predicted to increase the size, timing, and severity of fires into the future (Lenihan et al., 2003; Fried et al., 2004; Westerling et al., 2008). Projected temperatures in California between 2000 and 2100 are expected to rise 1.7 to 3.0 degrees Celsius ($^{\circ}\text{C}$) in the lower range of projected warmings, 3.1 to 4.3 $^{\circ}\text{C}$ in the medium range, and 4.4 to 5.8 $^{\circ}\text{C}$ in the high range (Cayan et al., 2008). Most of the projected temperature increases will occur during the summer months (Cayan et al., 2008). Modeling based on recent temperature increases forecast a 12 to 53 percent increase in large fires between 2070 to 2099 (i.e., greater than approximately 500 acres) (Westerling et al., 2008), and a median increase of 41 to 69 percent for burned area by 2085 (Westerling et al., 2011). Large fire risk may increase or decrease in Southern California depending upon the change in precipitation magnitude, however, large fire risk increases in Northern California regardless of whether precipitation increases or decreases (Westerling et al., 2008). Regardless of the modeled scenario, the predicted trend is one of increasing the length of fire season and increasing fire sizes at the statewide scale. There is also considerable uncertainty about how climate change would affect vegetation composition and structure across the state (Lenihan et al., 2003). Aside from mitigating the probability (risk) of wildfire, and general threat to the environment from wildfire, this VTP is intended to be utilized to increase fire resiliency and adaptation to climate change.

Fire behavior in the wildland environment is influenced by the interaction between weather, topography, and fuels, as illustrated by the fire behavior triangle (Figure 1.1-3; Countryman, 1972). Of the three sides of the triangle, the fuels side is the only one that can be feasibly manipulated through human activities. Vegetation treatments can influence fire behavior through the manipulation of the amount and arrangement of fuels. Properly implemented vegetation treatments have been shown to reduce fire severity and help to protect assets in the WUI (Safford et al., 2009). Vegetation treatments can improve the resistance and resiliency of some vegetation types to high-severity fire (Stephens et al., 2012), and strategically placed fuel breaks can help aid in fire suppression efforts (Syphard et al., 2011).



Regardless of the noted benefits, fuels treatments are not appropriate in all locations (Keeley, 2002), and can cause environmental impacts if not designed for site-specific conditions (Elliot et al., 2010). As such, the Board and CAL FIRE require a systematic process that guides the prioritization, selection, assessment, and

mitigation of appropriate vegetation treatments in the diverse environments of California. The VTP would provide the framework that allows for the implementation of appropriate fuels treatments across nonfederal lands in California.

There are substantial existing programs that address fire protection from the “house out,” including defensible space, fire safe development, and fire resistive construction requirements. These programs are focused on protecting homes and human development from wildfire and reducing structure flammability. The VTP is designed to protect homes from wildfire, but also to improve the ecological integrity of fire-adapted ecological communities and California’s forests. The VTP works alongside the programs described in Sections 1.5 and 1.6 to provide strategic and coordinated fire protection across the state.

1.2 USE OF A PROGRAM ENVIRONMENTAL IMPACT REPORT

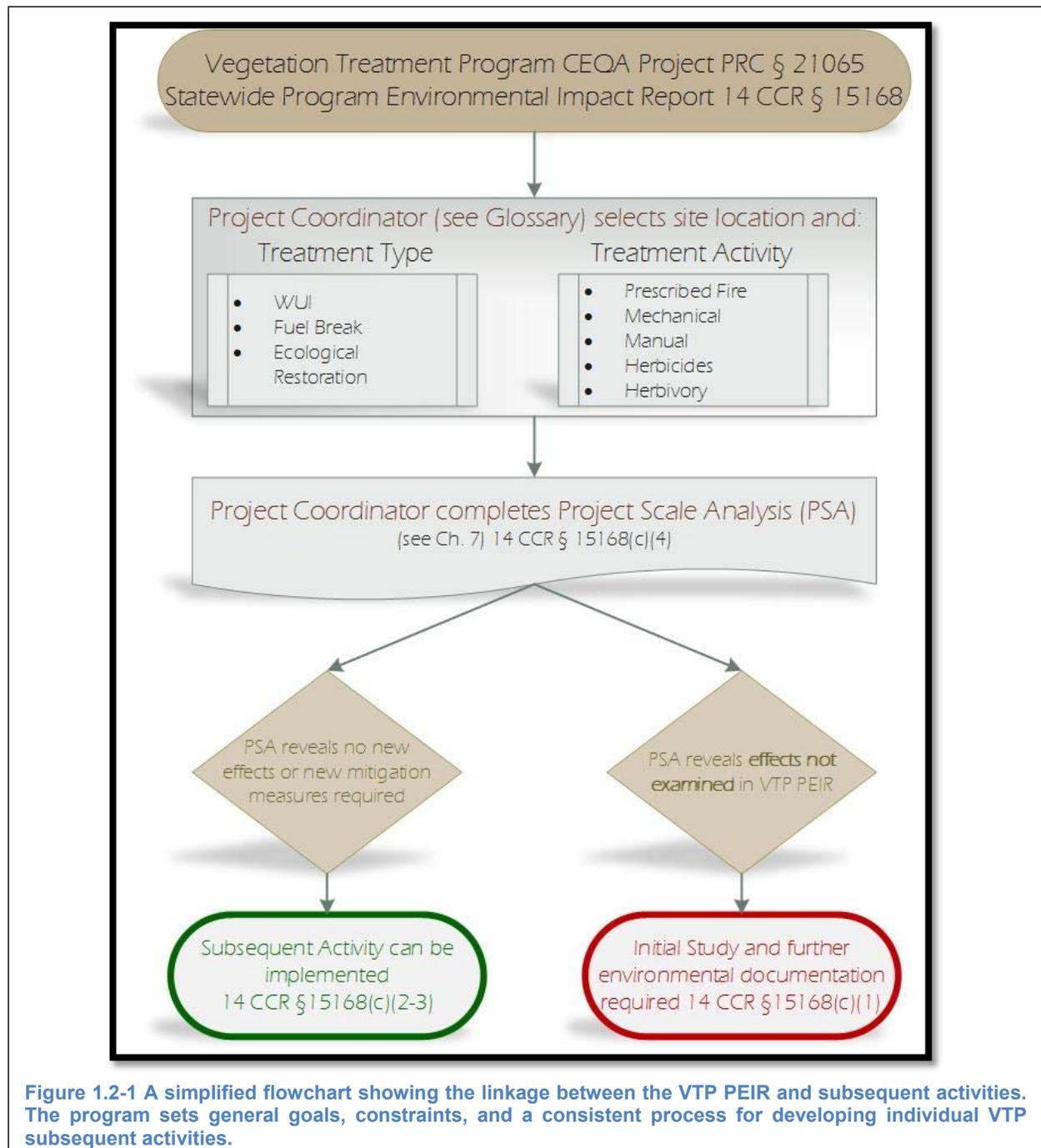
Per Section 15168 of the State CEQA Guidelines, a PEIR may be prepared on a series of actions that can be characterized as one large project and are related to, among other things, the issuance of general criteria to govern the conduct of a continuing program or individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways. CEQA encourages the application of a programmatic approach where a group or series of projects are similar in activities and impacts and where potential impacts can be avoided or mitigated in a similar manner. These projects would be identified as subsequent activities under the programmatic approach. The VTP meets these criteria for use of a PEIR.

Preparing a PEIR allows for a more exhaustive consideration of effects than would be practical in separate EIRs on individual actions, and ensures consideration of cumulative impacts that might be missed on a case-by-case basis. It also avoids duplicative consideration of basic policy and program-wide mitigation measures.

As noted in Section 15168(c) of the State CEQA Guidelines, proposed subsequent activities would be examined considering the information in this PEIR to determine whether an additional environmental document must be prepared. If, pursuant to Section 15168 of the State CEQA Guidelines, no new effects would occur or no new mitigation measures would be required on a subsequent activity, the activity is considered “within the scope” of this PEIR, and no new environmental documentation is required. Under this approach, CAL FIRE must incorporate all project requirements and all feasible mitigation measures from this PEIR relevant to the proposed subsequent activity to address significant or potentially significant effects on the environment.

If a proposed activity would have effects that were not examined in this PEIR, an initial study would be prepared to determine the appropriate environmental document. If another environmental document is needed, the PEIR can be used to simplify the task of preparing the subsequent environmental document, as indicated in Section 15168(d) of the State CEQA Guidelines. For instance, regional influences, secondary effects, cumulative impacts, and broad alternatives that apply to the overall process can be incorporated by reference, allowing the later environmental document to focus solely on the new effects that had not been previously considered. Any specific effects from subsequent activities that are too speculative to define at the program level would be resolved during CEQA review of individual activities. A detailed description of the implementation process is discussed in Section 2.4, Implementation Framework.

This PEIR offers the ability to factor State-level goals, values, and objectives into a framework for fire resiliency (Board, 2010; CAL FIRE, 2012). One of the goals of the *2010 Strategic Fire Plan* is to develop a method to integrate fire and vegetation management practices with landowner priorities and multiple jurisdictional efforts within local, state, and federal responsibility areas (Board, 2010). The Board supports the use of a programmatic approach to achieve this goal in a way that assists and streamlines the regulatory processes for site-specific activities, visualized in Figure 1.2-1.



Utilization of a PEIR for the VTP does not preclude site-specific environmental impact analysis or public input into individual vegetation treatment activities. The VTP PEIR sets forth the basic principles to prioritize, select, and analyze impacts and mitigate ecologically-appropriate vegetation treatments in a way that satisfies the objectives of the VTP. These principles also provide the foundation for the Project Scale Analysis (PSA).

1.3 RESPONSIBLE AND TRUSTEE AGENCIES

Under CEQA, a responsible agency is a public agency other than the lead agency that has legal responsibility for carrying out or approving a project or elements of a project (PRC 21069). Although other state and local agencies may have approval authority on individual vegetation treatment subsequent activities, these agencies do not have approval authority over implementing the statewide VTP analyzed in this PEIR, so there are no other responsible agencies.

Under CEQA, a trustee agency is a state agency that has jurisdiction by law over the natural resources that are held in trust for the people of the State of California (PRC 21070). The California Department of Fish and Wildlife (CDFW) is a trustee agency with jurisdiction over fish and wildlife and their habitats that may be affected by the VTP. Other trustee agencies may have resources held in trust that are affected by future site specific subsequent activities under this PEIR.

1.4 REGULATORY SETTING

This section describes the existing regulatory setting under which the Board proposes a statewide Vegetation Treatment Program, and through which the Board and CAL FIRE implement complementary programs to establish fire resistance in assets at risk and improve resiliency in the state's natural environment.

CAL FIRE is responsible for preventing and extinguishing wildland fires in the State Responsibility Area (SRA) (PRC Sections 4113 and 4125). The SRA is land that provides forest or range products, watersheds not owned or managed by the federal government or within the boundaries of incorporated cities, and where CAL FIRE has the primary financial responsibility for preventing and suppressing fires (Figure 1.4-1). Local Responsibility Area (LRA) is land where local agencies have the primary financial responsibility for preventing and suppressing fires. Land where federal agencies are responsible for preventing and suppressing wildland fires is called Federal Responsibility Area (FRA).

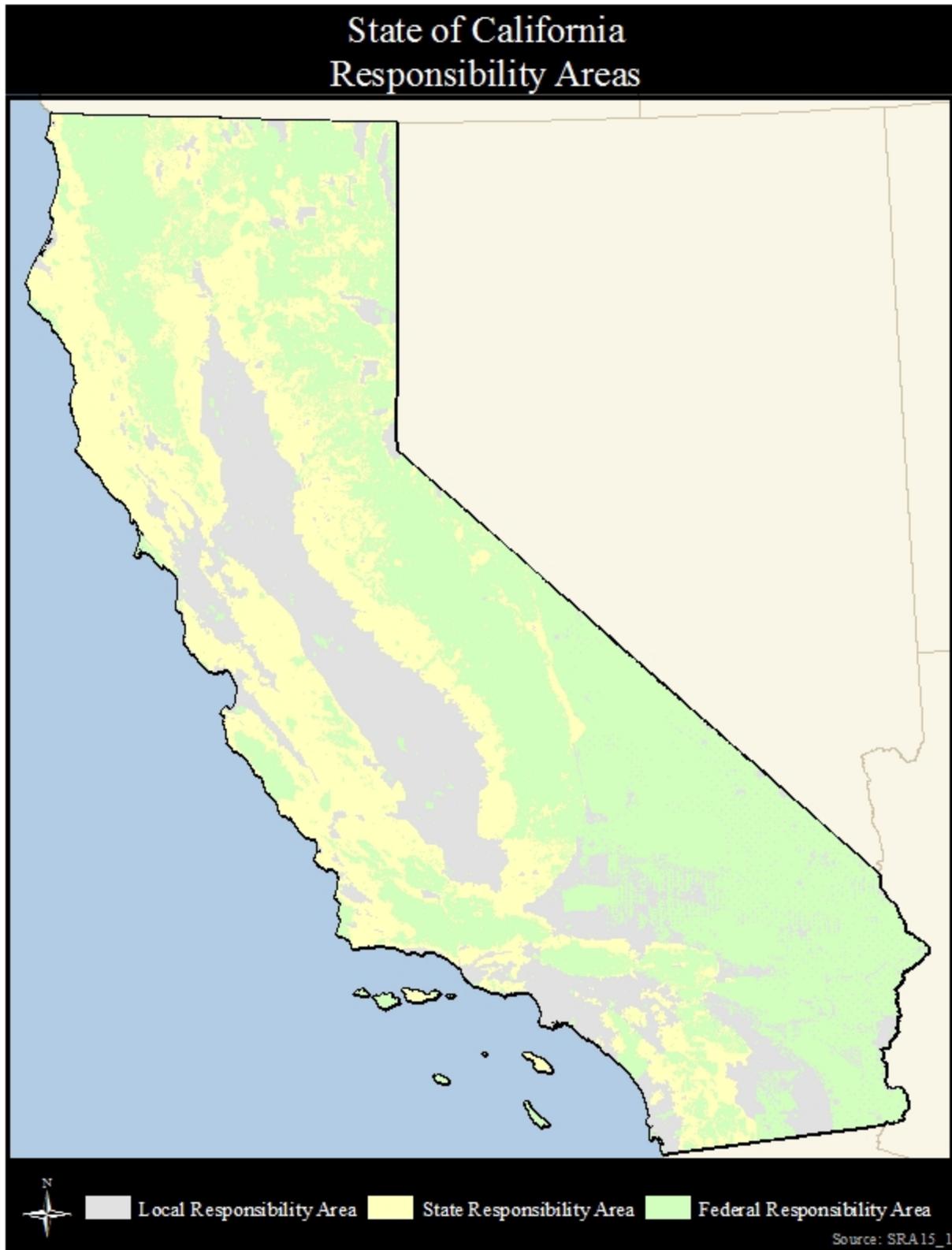


Figure 1.4-1: Responsibility Areas of California

The Board is responsible for identifying very high fire hazard severity zones (VHFHSZ) in the SRA and LRA. Local agencies are required to designate, by ordinance, VHFHSZ and to require landowners to reduce fire hazards adjacent to occupied buildings within these zones (Government Code Sections 51179 and 51182). The intent of identifying areas with very high fire hazards is to allow CAL FIRE and local agencies to develop and implement measures that would reduce the loss of life and property from uncontrolled wildfires (Government Code Section 51176).

PRC Sections 4114 and 4130 authorize the Board to establish a fire plan, which, among other things, determines the levels of statewide fire protection services for SRA lands. Central to the *2010 Strategic Fire Plan for California* (Board, 2010) is the idea that certain policies are critical to reducing and preventing the impacts of fire, and include both suppression efforts and fire prevention efforts. Major policy components of the plan are:

- Land use planning that ensures increased fire safety for new development.
- Creation of defensible space for survivability of established homes and neighborhoods.
- Improving fire resistance of homes and other constructed assets.
- Fuel hazard reduction that creates resilient landscapes and protects the wildland and natural resource values.
- Adequate and appropriate levels of wildland fire suppression and related services.
- Commitment by individuals and communities to wildfire prevention and protection through local fire planning.

CAL FIRE implements vegetation treatments under PRC Sections 4475 through 4495. PRC Sections 4461 through 4471 and 4491 through 4494 authorize CAL FIRE to implement its existing Chaparral Management Program (CMP) (CAL FIRE, 1981), now known as the Vegetation Management Program (VMP) (see 1.6.1.1). In addition, with the 2005 passage of SB 1084 (Kehoe), the Legislature modified and in some cases added language to PRC Sections 4475 through 4480 which:

- Broadened CAL FIRE's range of vegetation treatment practices beyond those described for the existing VMP.
- Added a definition of "hazardous fuel reduction".
- Made other changes to the major statutory provisions guiding CAL FIRE's vegetation treatment authorities.

PRC Sections 4790 through 4799.04 provides the regulatory authority for CAL FIRE to administer the California Forest Improvement Program (CFIP).

PRC Section 4562 mandates that the Board adopt fire protection zones where specific protection measures are to be identified, including vegetation treatments within and adjacent to timber operations.

Government Code Section 65302.5 gives the Board the regulatory authority to evaluate General Plan Safety Elements for their land use policies in SRA and VHFHSZs, as well as methods and strategies for wildland fire risk reduction and prevention in those areas, which includes projects potentially covered by this PEIR.

PRC Section 4291 gives CAL FIRE the authority to enforce 100 feet of defensible space around all buildings and structures on non-federal SRA lands, or non-federal forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material.

The State Fire Marshal is responsible for proposing fire prevention building standards (Health and Safety Code Section 13108.5) for roofs; exterior walls; structure projections, including but not limited to, porches, decks, balconies, and eaves; and structure openings, including but not limited to, attic and eave vents and windows, of buildings located in the Wildland Urban Interface Fire Areas as defined by California Fire Code Section 702A.

In addition to these statutes, Governor Jerry Brown proclaimed a State of Emergency on October 30, 2015 related to the extensive tree mortality throughout the State of California. Under the proclamation, Governor Brown directed specific tasks to CAL FIRE and acknowledged the partnerships that other agencies must have with CAL FIRE to achieve the goals set forth:

- The Department of Forestry and Fire Protection, the California Natural Resources Agency, the California Department of Transportation, and the California Energy Commission shall immediately identify areas of the State that represent high hazard zones for wildfire and falling trees using best available science and geospatial data.
- State agencies, utilities, and local government, to the extent required by their existing responsibilities to protect the public health and safety, shall undertake efforts to remove dead or dying trees in these high hazard zones that threaten power lines, roads and other evacuation corridors, critical community infrastructure, and other existing structures. Incidental vegetation such as shrubs that restrict access for safe and efficient removal of dead and dying trees also may be removed. The Department of Forestry and Fire Protection shall issue emergency guidelines setting forth the relevant criteria, and the California Conservation Corps shall assist government entities in implementing this directive to the extent feasible.
- The California Air Resources Board and the California Department of Forestry and Fire Protection shall work together and with federal land managers and the United States Environmental Protection Agency to expand the practice of prescribed burns, which reduce fire risk and avoid significant pollution from major wildfires,

and increase the number of allowable days on a temporary basis to burn tree waste that has been removed in high hazard areas.

On September 1, 2017 Governor Brown issued Executive Order B-42-17 to bolster the State's response to unprecedented tree die-off.

1.5 STRATEGIC PLANNING

This VTP PEIR is one component of an overall land use strategy by the Board. The goal of the VTP PEIR is to conduct an environmental analysis of vegetation management tools that can be utilized to reduce the risk of damaging wildfires and any potential environmental impacts they may have. This goal is further outlined by the objectives detailed in Chapter 2.2.1.

1.5.1 STATEWIDE STRATEGIC PLANNING

There are three major strategic planning documents that establish the vision, goals, and objectives of the Board and CAL FIRE: the *2010 Strategic Fire Plan for California*, the *2012 Strategic Plan*, and Unit Fire Management Plans (See Figure 1.5-1). These three documents build upon one another and work together to improve the natural and built environment's resilience and resistance to wildfire.



The *2010 Strategic Fire Plan for California* lays out central goals for reducing and preventing the impacts of fire in the state. This PEIR provides a framework for CAL FIRE

to achieve the goals outlined in the *2010 Strategic Fire Plan* via implementation of a variety of vegetation treatment projects. The goals of the *2010 Strategic Fire Plan* are:

1. Identify and evaluate wildland fire hazards and recognize life, property, and natural resource assets at risk, including watershed, habitat, social, and other values of functioning ecosystems. Facilitate the sharing of all analyses and data collection across all ownerships for consistency in type and kind.
2. Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of wildland fire protection plans and other local, county, and regional plans that address fire protection and landowner objectives.
4. Increase awareness, knowledge, and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reductions activities, fire prevention, and fire safe building standards.
5. Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state, and federal responsibility areas.
6. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
7. Address post-fire responsibilities for natural resource recovery, including watershed protection, reforestation, and ecosystem restoration.

The goals articulated above are meant to establish a natural environment that is more resilient and human-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal, and private partnerships. The VTP is one such strategy CAL FIRE and the Board employ to achieve those goals and vision.

The *2010 Strategic Fire Plan for California* considers the question “How do we utilize and live with [the] risk of wildfire?” and outlines a vision, goals, and objectives that lead to an answer to that question. CAL FIRE built upon the *2010 Plan* and developed the *2012 Strategic Plan* to identify and communicate CAL FIRE’s specific strategic goals and objectives through 2017 to meet their mission of serving and safeguarding the people and protecting the property and resources of California. Developing a PEIR for the VTP, rather than project-level EIRs for each fuel modification project, is a strategy by CAL FIRE to assist local units in accomplishing the following four goals from the *2012 Strategic Plan*:

- Effectively communicate the Department’s mission and vision to employees, partners, and stakeholders.
- Adapt and scale to changing budgetary, fiscal, and regulatory conditions.
- Seek to improve operational efficiency and effectiveness by shaping, enhancing, and adapting to changing circumstances.
- Cultivate and strengthen relationships with stakeholders, governing bodies, cooperators, and the public.

This PEIR sets a framework for local-level VTP projects to achieve these goals efficiently and successfully. The *2010 Strategic Fire Plan* set forth the broad goals to improve resiliency and resistance to wildfire and the *2012 Strategic Plan* helps establish Department-level goals to achieve such resiliency.

The third major strategic document that establishes a set of tools for each CAL FIRE Unit or Contract County to achieve these goals in their local area is the individual Unit or Contract County Fire Plan. Updated yearly, Unit/Contract County Fire Plans identify wildfire protection areas, initial attack success, assets and infrastructure at risk, pre-fire management strategies, and accountability within their Unit's geographical boundaries. The Unit/Contract County Fire Plan identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work locally, which may or may not be projects eligible for CEQA coverage under the proposed VTP. The plans include contributions from local collaborators and stakeholders and are aligned with other plans for the area, such as Community Wildfire Protection Plans (CWPP). This is a vital step to planning and implementing the VTP on the ground.

1.5.2 LOCAL LAND USE PLANNING

In addition to the strategic documents mentioned above, there are other plans and programs that play a role in the Board's and CAL FIRE's protection of the SRA.

Local Fire Safe Councils and other nonprofits may decide to develop CWPPs. A CWPP helps a community use collaborative, coordinated community planning to refine its priorities for the protection of life, property, and critical infrastructure in the WUI and discuss land, watershed, and vegetation management options. It is required to have three components: 1) collaboration, 2) prioritized fuel reduction, and 3) treatment of structural ignitability. Many Unit Plans function as CWPPs or can assist as a baseline plan to establish the assets at risk, community vulnerabilities, and protection priorities. Fire Safe Councils are important partners in implementing vegetation treatments under this PEIR, because they help identify areas of high value and high risk in communities and can assist in finding funding and in-kind support for vegetation management.

In addition to CWPPs and Fire Safe Councils, Board and CAL FIRE review of General Plan Safety Elements is another tool to promote fire safe planning in the state. Under Government Code Section 65302.5, the Board is obligated to review Safety Elements for counties and cities with SRA or Very High Fire Hazard Severity Zone (VHFHSZ) designated areas for the following information:

- A detailed history of fire activity in the planning area, as well as fire hazard severity zone maps.
- The planned land uses in VHFHSZ and SRA land.

- Goals, policies, and objectives to protect the community from the unreasonable risk of wildfire.
- Feasible implementation measures to carry out those goals, policies, and objectives.

The Board and CAL FIRE maintain databases of information to assist in developing vegetation treatment projects, Unit Fire Plans, CWPPs, and other strategic fire planning documents. This data is utilized together with information from this PEIR to establish, fund, and implement priority projects. It includes fire hazard severity zones; historic fire perimeters; land cover types and changes; LRA, SRA, and FRA; and priority landscapes throughout the state. By making this data available online through CAL MAPPER and the CAL FIRE website, the Board and CAL FIRE can provide data and analytical support to communities and organizations as they outline plans for vegetation projects and other fire protection planning strategies.

1.6 WILDLAND FIRE PREVENTION IN CALIFORNIA

Wildland fire prevention can generally be categorized as some combination of hazardous fuel reduction projects, fire prevention planning, and fire prevention education. Wildland fire prevention in the SRA relies on a complex partnership between private landowners, homeowners, non-governmental organizations, and local, state and federal agencies. Each partner has a unique and important role in the overall wildland fire prevention of California's communities. These actions working in concert with one another provide the infrastructure that wildland fire suppression personnel may utilize to safeguard the people and protect the property and resources of California during a wildfire.

This section identifies the roles and responsibilities of CAL FIRE, private landowners, local governments, other state agencies, federal agencies, and non-governmental organizations. The other activities identified below exist outside the scope of the proposed program and would continue to take place as independent fire prevention activities regardless of the outcome of the VTP.

1.6.1 EXISTING CAL FIRE PROGRAMS

1.6.1.1 Vegetation Management Program

In the early 1980s, the California State Legislature recognized that there had been an increase in the number of uncontrolled fires on wildlands in the state, resulting in destruction of important natural resources, loss of recreation opportunities, and an unacceptable level of hazards to public safety. The California State Legislature subsequently passed SB 1704 (Keene) which established a fuel management program within the Department called the Chaparral Management Program (CMP). The program

allows CAL FIRE to enter into contracts with landowners for prescribed burning to prevent high-intensity wildland fires, and manage watersheds, rangeland, vegetation, forests, and wildlife habitat. The state may assume up to 90% of the costs of conducting a project, assume liability for the project, and suppress escaped fires.

This program was implemented through a PEIR in 1981, which identified potential environmental effects, provided mitigation for potential adverse effects, and provided an environmental checklist to evaluate project-level actions for compliance with the EIR. The CMP PEIR focused on assessing potential impacts of conducting prescribed burning on shrub lands. The CMP has since become the Department's Vegetation Management Program (VMP), but is still guided by the statutes created by SB 1704.

The current VMP reduces the potential for large wildfires and enhances natural resources by treating the following vegetation types primarily on SRA lands where CAL FIRE is responsible for fire protection:

- Coastal scrub habitat south of San Luis Obispo County
- Montane hardwood-conifer habitat north of Monterey County
- Mixed chaparral, montane chaparral, chamise-redshank, and valley foothill hardwood habitats throughout their range
- Annual and perennial grasslands intermixed with the above vegetation types
- With additional CEQA review, mixed conifer forests and other timber types, such as those found in the Coast Range, Sierra Nevada, and Cascade mountains

The VMP employs multiple mechanisms to treat vegetation, similar to the proposed VTP (prescribed fire, mechanical, manual, herbivory etc.), but the acreage treated with prescribed fire has decreased significantly since the program began in the 1980's. There are several reasons for this decrease, including an emphasis away from large range management burns to wildland urban interface projects that are smaller and less likely to use prescribed fire to obtain fuel reduction goals, increased air quality restrictions or restrictions for other environmental resources that limit the days and areas available to conduct burning operations, budget and personnel constraints, and the re-tasking of VMP personnel to non-VMP work.

Although the VMP emphasizes treatment of rangelands, it also meets a wide variety of other objectives, including protecting human life and property, reducing fire suppression costs, enhancing wildlife habitat, improving commodity production (e.g., livestock grazing and water yield), and reducing the potential for long-term detrimental effects of wildfire (e.g., impacts from flooding, air and water quality, soil productivity). Approximately 10.9 million acres are available for treatment under the VMP, and the VMP is authorized to treat a maximum of 120,000 acres annually (CAL FIRE, 1981). Because of funding limitations and other factors (i.e., lack of suitable burn day conditions, cost and time to meet environmental review requirements, surveying for and mitigating treatment effects

to threatened and endangered species, three-year effective period for a VMP project, etc.), treatment has averaged less than 30,000 acres per year. Project funding is constrained by budgets, staffing levels, and project consistency with the objectives of the VMP.

Between 2004 and 2012, CAL FIRE implemented an additional Fuels Reduction Program funded by Proposition 40, the *California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002*. The goal of the Fuels Reduction Program was to reduce wildland fuels that posed a threat to watershed resources and water quality on nonfederal lands in areas with high or moderate levels of watershed assets at risk within the fifteen Sierra Nevada counties. The program was implemented by partnering with non-profit organizations, such as Fire Safe Councils, and with non-federal government agencies, such as California Department of Parks and Recreation (State Parks) and local Resource Conservation Districts, through funding under the Community Assistance Grants Program and CFIP.

1.6.1.2 California Forest Improvement Program (CFIP)

CFIP is a cost-share program aimed at improving the economic value and environmental quality of private forestlands. The purpose of the program is to work cooperatively with private landowners, particularly smaller, non-industrial landowners, to improve both the productivity of the land and the degree of protection and enhancement of the forest resource system as a whole. Fundable practices include:

- Preparation of forestland management plans
- Site preparation
- Planting and costs of seeds and seedlings
- Release from brush competition
- Young-growth stand improvement
- Forest land conservation measures
- Fish and wildlife habitat improvement
- Follow-up work

CFIP is a voluntary program that can fund 75-90 percent of an approved project. It applies to private landowners owning between 20 and 5,000 acres of commercial forest land. Forest landowners who own less than 20 acres can apply as part of a group. There is a 10-year requirement for maintenance of the land as timber. Wildfire risk reduction can be achieved through practices such as site preparation, release, and forest stand improvement that affect the loading, composition, and arrangement of wildland fuels.

1.6.1.3 Defensible Space Education and Compliance

CAL FIRE's fire prevention activities include the education and enforcement of PRC 4291, commonly referred to as Defensible Space. PRC 4291 directs the creation and maintenance of 100 feet of defensible space around all buildings and structures on forest, brush, and grass-covered lands or any land that is covered with flammable material. The law also allows insurance companies and local ordinances, rules or regulations to require homeowners to maintain defensible space greater than 100 feet. PRC 4291 does not allow landowners to manage defensible space outside their property boundaries. The legislation also outlines the consequences for those found in violation of the requirements set forth by PRC 4291. PRC 4291 is implemented and made specific in regulation in CCR Title 14 Section § 1299.01 et seq.

Under PRC 4291 CAL FIRE is also directed to provide guidance for homeowners on how to manage their defensible space most efficiently. Therefore, CAL FIRE provides guidelines to homeowners about their defensible space through personal interactions while conducting defensible space inspections, various printed materials, and the web (www.readyforwildfire.org).

The exact number of acres treated under PRC 4291 is variable from year to year; however, some assumptions about acreages can be made knowing that over 700,000 habitable structures were billed for the Fire Prevention Fee in the State Responsibility Area in past years. Assuming no overlapping defensible space, no property boundary restrictions, and a median habitable structure footprint of 2100 sq. ft.¹ in a perfect square, each habitable structure under the identified assumptions would treat approximate 1 acre or about 700,000 acres of vegetation statewide. However, many structures do not have such large footprints or are on parcels less than one acre in size, and many 100 foot zones overlap between parcels/homes. Therefore, it can be assumed that the vegetation modified under PRC 4291 is less than 700,000 acres.

1.6.1.4 Other Fire Prevention Programs

CAL FIRE, the Board, and the Office of the State Fire Marshal provide wildfire prevention services to the State through various other programs including State Demonstration Forest management, land use planning, public information, fire planning, risk analysis, and law enforcement.

- The Board of Forestry and Fire Protection provides general guidance to CAL FIRE on fire prevention activities, evaluates General Plan Safety Elements for their land

¹ 2010 Median and Average Square Feet of Floor Area in new Single-Family Houses, US Census

use policies in SRA and VHFHSZs, and develops the Statewide Strategic Fire Plan.

- The Office of the State Fire Marshal provides support through a wide variety of fire safety responsibilities including: regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death and destruction by fire; by providing statewide direction for fire prevention within wildland areas; by regulating hazardous liquid pipelines; by developing and reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.
- A CAL FIRE Land Use Planning Program engages with county and city planning and development departments to improve their comprehensive fire hazard planning in the General Plan Safety Element and other plans.
- CAL FIRE manages eight demonstration forests covering approximately 71,000 acres. Hazardous fuel reduction projects are regularly conducted either through timber management activities or with the use of hand crews.
- CAL FIRE conducts a robust suite of fire prevention public information campaigns through social media, school programs, fair exhibits, posters, flyers and thousands of other printed materials, radio and television spots, internet communications, community meetings, and one-on-one contacts with those who live, work and recreate in wildland area.
- Fire Planning incorporates concepts of the National Fire Plan, the California Strategic Fire Plan and individual CAL FIRE Unit Fire Prevention Plans, as well as Community Wildfire Protection Plans (CWPP's). Unit plans and CWPP's outline fire situations at the local levels. Each identifies prevention measures to reduce risks, educates and involves the local community or communities, and provides a framework to diminish potential losses due to wildfire. Planning includes other state, federal and local government agencies, as well as fire safe councils.
- The Fire and Resource Assessment Program (FRAP) and local pre-fire engineers support wildland fire risk analysis with GIS products to spatially evaluate the wildland fire hazards in relation to resources at risk. These include fire hazard severity mapping, emergency evacuation planning, and historical fire data.
- CAL FIRE utilizes trained peace officers to enforce state forest and fire laws. The enforcement responsibilities within the prevention program include fire investigations, criminal, and civil case management citations. CAL FIRE's Civil Cost Recovery program recovers fire suppression costs when a fire investigation reveals that a party caused the fire negligently or in violation of law. This serves the State in two ways: it assigns fire suppression costs to culpable parties rather than the taxpayers at large, and it serves as a deterrent to carelessness that can result in destructive fires.

Table 1.6-1 Documents that guide existing programs carried out by CAL FIRE.

PROGRAM	RELEVANT DOCUMENTATION
Vegetation Management Program	Vegetation Management Program Handbook and Field Guide. June 16, 2001. California Department of Forestry and Fire Protection. Sacramento. 135p. Chaparral Management Program Final Environmental Impact Report. May 18, 1981. California Department of Forestry and Fire Protection, Sacramento.
Fire Prevention	<ul style="list-style-type: none"> • Defensible Space http://www.readyforwildfire.org/ • Strategic Fire Plan http://osfm.fire.ca.gov/fireplan/fireplanning.php • Fire Engineering http://cdfdata.fire.ca.gov/fire_er/fpp_engineering • Fire Safety Education http://calfire.ca.gov/communications/communications_firesafety.php • Law Enforcement http://cdfdata.fire.ca.gov/fire_er/fpp_law • Office of the State Fire Marshall http://osfm.fire.ca.gov/ • Wildland Hazard & Building Codes http://calfire.ca.gov/fire_prevention/fire_prevention_wildland.php • Structure Fire Engineering & Investigations http://osfm.fire.ca.gov/strucfireengineer/strucfireengineer.php
California Forest Improvement Program	<ul style="list-style-type: none"> • California Forest Improvement Program User's Guide 2015 Edition, Vol 1. http://calfire.ca.gov/resource_mgt/downloads/CFIP/CFIP_User's_Guide_2015.pdf • Procedural Guide for CAL FIRE Greenhouse Gas Reduction Fund Forest Management Projects CFIP Fuels Reduction Using the California Forest Improvement Program, For Carbon Sequestration Authorized by AB32 California Global Warming Solutions Act of 2006 http://calfire.ca.gov/resource_mgt/downloads/ProceduralGuide_FuelsReduction_GGRF_CFIP.pdf • Final Environmental Impact Report for Proposed Administrative Regulations for the California Forest Improvement Program to be Adopted by the Director of Forestry and Approved by the Board of Forestry. June 1979. California Department of Forestry and Fire Protection, Sacramento. • California Forest Improvement Program Environmental Impact Report: Supplement to the Final PEIR; State Clearinghouse #79050318. June 1990. California Department of Forestry and Fire Protection, Sacramento

1.6.2 THE PROPOSED VEGETATION TREATMENT PROGRAM

The California State Board of Forestry & Fire Protection (Board) and the California State Fish and Game Commission (FGC) initiated a review of the Department's VMP following the major wildfires in Southern California in the fall of 1993. Subsequently, a working group was formed in the spring of 1994 to recommend to the Board and FGC ways to improve the VMP to provide additional fire protection while meeting the concerns and needs of other agencies and the public. These recommendations included:

- Expand the program and EIR to include all vegetation fuel types in California.
- Expand the EIR to include all fuel management techniques that are currently available.
- Include a more detailed discussion of the no action alternative in the EIR.

- Modify the project-level environmental checklist.
- Expand authorization for VMP projects from state responsibility areas to all hazardous areas.

In 1996, the Board and the Department revised the California Fire Plan, which placed an increased emphasis on “pre-fire” projects (such as vegetation treatment activities) to help reduce wildland fuels and thereby reduce the costs and losses associated with large, damaging wildfires. The Department also increased its activities in this area.

In June of 2000, CAL FIRE completed and certified a new PEIR for the Department's Vegetation Management Program. In January of 2002, the Superior Court of San Francisco County ordered that the PEIR be decertified for failure to adequately address the potential environmental impacts of the program. Herbicide use in association with VMP projects was specifically cited as inadequate (e.g., herbicides used as either a precursor step or a follow-up maintenance step to a VMP project).

In 2005, the Legislature passed and the Governor signed into law SB 1084 (Kehoe), which broadened the range of vegetation treatment practices specifically enumerated in the Public Resources Code, added a definition of “hazardous fuel reduction,” and made other changes to the major statutory provisions guiding the Department's vegetation treatment authorities. See PRC Sections 4461 through 4494.

In 2006, the Board and Department began preparation of a draft Vegetation Treatment Program PEIR that would address the issues raised by the court in the decertification of the 2000 PEIR and address the legislative modifications to the Public Resources Code. This effort lacked funding and staff support for completion.

2010 brought a renewed effort by the Board and Department to complete a PEIR and circulate it to the public. A Draft VTP PEIR was circulated in late 2012 and early 2013. The Board received extensive public comment on the draft document, particularly focused on the program's treatment of chaparral landscapes in Southern California. In 2013, the Board hosted a meeting and field tour in Ventura County to further examine this issue. The Board and Department then engaged stakeholders, scientists, and policymakers in several field tours in Southern California to discuss the current chaparral fuel conditions and stakeholders' ecological concerns. Because of these tours and discussions, the Board requested a critical scientific review of the Draft VTP PEIR by specialists at the California Fire Science Consortium (CFSC).

The CFSC review was completed in fall 2014, and the Board and Department developed an internal workgroup to examine the review and the existing Draft VTP PEIR and edit the document to reflect recommendations from the public and CFSC. This administrative draft of the revised VTP PEIR was presented to the Board in mid-2015 and is currently in review and discussion by the Board.

1.6.3 PRIVATE LANDOWNER FIRE PREVENTION

Homeowners have a statutory obligation to create defensible space within 100 feet of their home (PRC 4291) and to construct new homes, or remodel existing homes, in compliance with the fire-resistant standards found in the California Building Code (CCR Title 24). Homeowners also affect the wildland fire environment through improvements to their property such as installation of landscaping, gardens, orchards, driveways and outbuildings.

Larger private landowners can either reduce or increase the wildland fire hazards on their land through their land management activities. Activities such as timber management, grazing, and irrigated agriculture alter the composition, distribution, and abundance of vegetation on the landscape. The maintenance of roads to support these land management activities may provide access to fire suppression personnel during wildland fires. This diversity of ownership objectives and management activities provide opportunities for CAL FIRE to find willing landowners to conduct activities consistent with the goals and objectives of the VTP.

1.6.4 LOCAL GOVERNMENT FIRE PREVENTION

Local governments are responsible for local land use decisions and planning, including permitting structures to be built in the SRA or LRA VHFHSZ. Building codes, including those requiring fire resistant materials and design, are enforced by local building inspectors. Local agencies, such as Fire Protection Districts, may also participate in fire prevention education or be actively engaged in identifying and mitigating wildland fire hazards through development and implementation of CWPPs. Local governments may also help fund fire prevention activities of their local Resource Conservation Districts or Fire Safe Councils.

County road departments are responsible for much of the road systems in the SRA that provide for safe egress of residents and ingress for emergency responders. As part of general road maintenance activities, it is not uncommon for roadside vegetation to be controlled either mechanically (mower, masticator, or by hand) or chemically. This can limit the spread of noxious weeds, reduce the receptive fuel bed for fire ignitions, and provide small firebreaks for suppression efforts. Counties may also manage County or Regional Park Systems for recreation or open space maintenance. Wildland fire prevention is usually a general consideration within the overall management plans for these parcels.

1.6.5 OTHER STATE AGENCY FIRE PREVENTION

CAL FIRE is not the only State agency responsible for fire prevention in the SRA. Caltrans, State Parks, the Office of Emergency Services, the California Department of Fish and Wildlife, various conservancies, and the California Conservation Corps also take direct actions to reduce wildland fire hazards.

Caltrans is responsible for construction and maintenance of the State's highway system, which is a major source of wildland fire starts. These roads are generally wider than local roads and offer safe opportunities for fire suppression personnel to stage equipment and anchor suppression activities. Treatment of roadside vegetation to improve safety such as sight lines or useable road shoulders also provide fire prevention benefits by reducing the incidence of roadside fire starts.

State Parks manages 280 park units, many of which are in the SRA. These parks provide recreational activities for millions of Californians and visitors each year. These high levels of recreation increase the risk of wildland fire starts. State Parks has highly visible visitor education campaigns and well enforced rules, such as fire restrictions and spark arrester requirements on off-highway vehicles, to reduce the incidence of fire starts. State Parks also regularly maintains the vegetation around areas of highly concentrated recreation, such as campgrounds, to reduce wildland fire risks.

The Governor's Office of Emergency Services helps Californians prepare for disasters, including wildfire, through education and planning. They have also been tasked with preparation of the California Emergency Plan, which outlines state-wide strategies to support local government efforts during large-scale emergencies.

The California Department of Fish and Wildlife manages over 600,000 acres of forest and rangeland in the state. Each property is managed for specific wildlife conservation goals and objectives identified within Land Management Plans that are periodically revised. Identified activities within these plans to accomplish conservation goals may include timber harvesting, hazardous fuel reduction, prescribed burning, or grazing. Fire prevention is a co-benefit of many of these activities.

The State of California has numerous conservancies within the Department of Natural Resources to further the State's land conservation goals. In general, conservancies acquire lands of high conservation value, easements to these lands, or administer grants or other incentive programs for landowners to provide conservation benefits within the conservancy's defined geographic boundaries. Fire prevention may be a byproduct of the active land management for conservation practices such as thinning for forest health by the Sierra Nevada Conservancy, or using prescribed fire for noxious weed management by the Santa Monica Mountains Conservancy. Conservancies can also further the State's

public education about wildfire prevention through their websites or signage at recreational sites under their control.

The California Conservation Corps (CCC) generally performs labor intensive projects with hand and power tools for state, local, and federal agencies, and non-profit organizations to conserve or enhance the state's natural resources. Some of the common fire prevention activities undertaken by the CCC include fire hazard reduction and roadside chipping.

1.6.6 FEDERAL AGENCY FIRE PREVENTION

The United States Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), and United States Fish and Wildlife Services (USFWS) all manage lands in California. Some of these lands fall within State Direct Protection Areas, federal lands that the state has assumed primary fire protection services for efficiency of operations, or are directly adjacent to SRA lands. These agencies are all active land managers and provide wildland fire prevention education to recreational visitors, conduct some level of fire hazard reduction activities, and have regulations and enforcement staff in place to limit wildland fire starts (ex. seasonal fire restrictions and spark arrestor requirements). These organizations may also administer grant programs for other organizations to conduct wildfire prevention activities. See Section 5.3.1 for a summary of projects closely related to the proposed VTP undertaken by federal agencies, and Table G.2-1 for a summary of recreational visitor days to federal facilities.

1.6.7 NON-GOVERNMENTAL ORGANIZATION FIRE PREVENTION

State, Local and Federal governmental agencies are assisted in their fire prevention activities by home owner associations (HOAs), Fire Safe Councils (FSCs), tribal governments, utilities and railroads.

HOAs may include fire safe landscaping requirements within their covenants, conditions and restrictions (CC&Rs), and may maintain community roads or green space areas for their residents. FSCs may be either state, county, or specific community organizations involved with wildland fire prevention education, planning, and project implementation. Their work is generally carried out with a combination of grant funding and community volunteers.

Tribal governments are responsible for land use decisions within the boundaries of their reservations. They may also manage their lands for resource outputs (ex. timber harvesting and grazing) or for traditional resource needs (ex. plant, fish, or wildlife habitat).

Utilities that generate and distribute water, gas, and electricity to Californians maintain a vast network of facilities throughout the state. These utilities generally undertake some

form of regular vegetation management to reduce the risks of damage to their facilities from wildland fire. Vegetation management along electrical transmission lines is especially robust as the lines themselves may be the source of wildland fires. While these facilities are not always strategically placed for wildland fire prevention, they provide linear features on the landscape where vegetation is regularly maintained. Railroad tracks and communication facilities also generally have some regular vegetation management associated with them where they are in the wildland environment.

1.7 ORGANIZATIONAL STRUCTURE OF THE PEIR

The content and format of this PEIR is designed to meet the requirements of CEQA and the State CEQA Guidelines. The report is organized into the following chapters:

- Executive Summary summarizes the need for the program, the program objectives, the Proposed Program and the Alternatives, conclusions regarding impacts of the Proposed Program, and issues of concern.
- Chapter 1 describes the purpose of the PEIR.
- Chapter 2 describes the proposed program description.
- Chapter 3 describes the alternatives to the proposed program.
- Chapter 4 describes the affected environment, effects, and mitigation.
- Chapter 5 contains the cumulative effects analysis.
- Chapter 6 describes the significant effects and growth-inducing impacts.
- Chapter 7 has the Project Scale Analysis documents.
- Chapter 8 lists the individuals involved in preparation of the PEIR.
- Chapter 9 lists the works cited.