

E. EXECUTIVE SUMMARY

E.1 INTRODUCTION

The California State Board of Forestry and Fire Protection (Board) is proposing to initiate the Vegetation Treatment Program (VTP). The VTP will become an integral part of the Board's comprehensive wildfire prevention strategy for the state responsibility area (SRA) lands of California, and will compliment fuel reduction projects being undertaken by federal and local governments. Under the VTP, the Department of Forestry and Fire Protection (CAL FIRE) will implement strategic fuel management projects as part of their mission to safeguard the people and protect the property and resources of California from the hazards associated with wildfire. This Program Environmental Impact Report (Program EIR) analyzes the potential environmental impacts that may occur from undertaking the VTP, and identifies project level limitations and mitigation measures that will minimize those impacts.

This Program EIR has been prepared according to the State CEQA Guidelines (California Code of Regulations (CCR) Section 15168). CEQA allows a lead agency, in this case the Board, to prepare a Program EIR to analyze the environmental impacts from a series of actions that can be characterized as one large project and are related to the issuance of general criteria to govern the conduct of a continuing program, or individual activities with similar scope or effects. The Board recognizes the need for a continuous fuel reduction program to ensure a high level of fire protection across the SRA in their Strategic Fire Plan, and has the statutory responsibility to establish policy for wildland resources in the SRA. The use of a Program EIR allows the Board to more exhaustively consider the environmental impacts than would be practical in separate project level EIRs and ensures consideration of cumulative impacts that might be missed in a project-by-project analysis.

E.2 PURPOSE AND NEED FOR THE VTP

Human population expansion into wildlands, increased fire suppression efforts, and a legacy of land use conversions has altered fire frequencies and fuel loading from historic patterns in California. The wildland-urban interface (WUI) – the transition between developed areas and the wildland – is of primary concern due to the high risk posed to life and property. In some forested portions of California fire suppression has created an uninterrupted accumulation of wildland fuels with resultant increases in fire hazard. Wildfire acreage in California increases with prolonged drought and extreme

weather conditions (e.g., Santa Ana winds). The combination of manmade and natural factors has led to a situation where wildfire acreage, fire suppression cost,¹ and losses of residential structures have increased dramatically in the past three decades.

Climate change suggests a continuing and even accelerated risk from wildfire. Climate change scenarios suggest more frequent droughts (Diffenbaugh et al., 2015) and higher fire severity in some portions of the state (Fried et al., 2004). Increasing temperature has implications for vegetation distribution which may further increase future fire extent and fire intensity (Lenihan et al., 2003). Some ecosystems may not be able to adapt fast enough to increasing drought stress, resulting in large scale mortality from insects, fire, or disease (Grant et al., 2013). Increased fire extent, intensity, and severity can affect aquatic habitats (Bisson et al., 2003) and/or water quality (Ice et al., 2004). These future climate scenarios combined with continuing projections of residential growth into the wildland (Mann et al., 2014) suggest that existing wildfire-related problems are poised to become even larger in the near future.

An environmental problem of this magnitude goes beyond jurisdictional boundaries and requires a statewide strategy. The mission of the Board and CAL FIRE is to serve and safeguard the people and protect the property and resources of California (Board, 2010). An overarching goal of vegetation treatments is to alter fire behavior and reduce harmful effects. However, California displays astonishing diversity in plant, animal, and social systems. Without proper design, the statewide planning and implementation of vegetation treatments can potentially come with significant costs. To this end, the VTP Program EIR lays out a framework for accomplishing the fire hazard reduction goals of the Board and CAL FIRE in a manner that minimizes environmental impacts.

E.3 CONCEPTUAL BASIS OF THE VTP

CAL FIRE will implement the VTP with the intent of lowering the risk of damaging wildfire in the SRA by managing wildland fuels through the use of environmentally appropriate vegetation treatments. The VTP will only be applied to portions of the SRA that will best allow for the achievement of VTP objectives. These objectives are:

1. Modify wildland fire behavior to help reduce losses to life, property, and natural resources.
2. Increase the opportunities for altering or influencing the size, intensity, shape, and direction of wildfires within the wildland urban interface.

¹ CAL FIRE statistics indicate an exponential, more than six-fold increase in emergency fund fire suppression expenditures since 1979 after adjusting for inflation (CAL FIRE Emergency Fund Fire Suppression Expenditures, September 2014).

3. Reduce the potential size and total associated suppression costs of individual wildland fires by altering the continuity of wildland fuels.
4. Reduce the potential for high severity fires by restoring and maintaining a range of native, fire-adapted plant communities through periodic low intensity treatments within the appropriate vegetation types.
5. Provide a consistent, accountable, and transparent process for vegetation treatment monitoring that is responsive to the objectives, priorities, and concerns of landowners, local, state, and federal governments, and other stakeholders.

The first objective is the governing goal of the Program, and recognizes the link between fuels management, fire behavior, and fire effects. Modifying fuels influences fire behavior by reducing rate of spread and decreasing fire line intensity (i.e., heat release). This increases firefighter safety and the ability of firefighters to suppress or manage a fire. California's tremendous diversity in vegetation translates into a similar diversity in fuel types, with a resultant variation in fire behavior throughout the state. Considering statewide variations in fire behavior and the need to characterize it at a workable scale for a statewide environmental analysis, the vegetation of California is condensed into three main groups based on the distinct fire behavior each group exhibits. These groups can be classified as tree dominated, grass dominated, and shrub dominated vegetation formations.

Objectives two through four are related to the problem statement expressed in the previous section (E.2), and provide more specific links to values at risk and cost considerations.

To attain these objectives at the state-wide scale, the VTP organizes treatments into three general types:

- Wildland-Urban Interface (WUI): treatments will be focused in WUI-designated areas, and generally consist of fuel reduction to prevent the spread of fire between wildlands and structures, or vice versa.
- Fuel Breaks: strategically placed vegetation treatments that actively support fire control activities.
- Ecological Restoration: projects will generally occur outside the WUI in areas that have departed from the natural fire regime as a result of fire exclusion. Ecological restoration treatments will focus on restoring ecosystem resiliency by moderating uncharacteristic wildland fuel conditions to reflect historic vegetative composition and structure, including cultural landscapes.

This Program focuses fuel treatment projects in strategic areas to support the Board and CAL FIRE's mission to protect life, property, and natural resources by evaluating

vegetation formations, expected fire behavior, values at risk, and treatment types. Further discussion of the VTP's conceptual basis is contained in Chapter 2.

Objective five promotes a consistent and collaborative process for identifying projects that meet the objectives of the VTP while avoiding significant impacts to the environment. An example of this would include working with private landowners of rangeland to meet the objectives of fuel hazard reduction while simultaneously improving forage production. This objective also supports integrating the VTP with broader, multi-jurisdictional fuel reduction efforts. Finally, it recognizes that project planning and implementation is best served through open communication with stakeholders and the public.

E.4 VEGETATION TREATMENT PROGRAM

The VTP allows for the implementation of specific vegetation treatment projects at appropriate locations and scales to meet program objectives for fire prevention, fire protection, and/or ecological restoration. Activities analyzed in and covered under the VTP Program EIR include: prescribed fire, manual activities (i.e., hand crew work), mechanical activities, prescribed herbivory (targeted beneficial grazing), and targeted ground application of herbicides. These activities will be used singularly or in combination depending upon the treatment type (i.e., WUI, fuel break, or ecological restoration) and environmental considerations.

Vegetation treatment activities will be implemented primarily on privately owned land within the SRA, and only on a voluntary basis. CAL FIRE will serve as the CEQA lead agency and oversee the implementation of vegetation treatment activities at the local CAL FIRE Unit or Contract County level for most VTP projects. The only exception would be in circumstances where proposed VTP projects are located on lands controlled by the California Department of Parks and Recreation (State Parks). In this case, State Parks may act as the lead agency and rely upon CAL FIRE's Program EIR in implementation of their vegetation treatment projects provided they fall within the objectives of the VTP. While CAL FIRE will serve as the CEQA lead agency in most circumstances, projects can be identified, funded (partially or fully), and implemented by private landowners, Fire Safe Councils, other public agencies, or non-profit groups. In these situations, the implementing entity will enter into a contract or agreement with CAL FIRE to carry out the VTP project.

The first step in the implementation process will be for each of CAL FIRE's Units or Contract Counties to identify proposed vegetation treatment projects consistent with the VTP during their annual update of the Unit Fire Management Plans (Unit Fire Plans) or Contract County Strategic Fire Plans. These strategic plans identify areas for fire

prevention activities based on local conditions including values at risk, topography, predominant weather patterns, vegetation characteristics, likelihood of ignition sources, and response times. Proposed VTP projects will therefore become a component of fire prevention activities within the Unit or Contract County's jurisdiction. Projects are prioritized for implementation relative to how well they meet VTP and Unit/Contract County fire prevention objectives. In general, WUI treatments with the highest likelihood of protecting values at risk will receive the highest priority, and strategic fuel breaks or ecological restoration projects outside the WUI will be given moderate to low priority. The CAL FIRE Unit/Contract County staff will coordinate with private landowners and interested agencies to identify projects best suited to meet local priorities, funding limitations, and the VTP objectives. This provides the first opportunity for local stakeholders to engage in the VTP process.

Once a Unit Fire Plan/Contract County Strategic Fire Plan has identified proposed VTP projects, the CAL FIRE Unit/Contract County staff and the project proponent will begin the project evaluation process by completing the VTP Project Scale Analysis (see Chapter 7). The purpose of the Project Scale Analysis is to determine whether the environmental effects of the proposed project are addressed in this Program EIR. The Project Scale Analysis also requires CAL FIRE to consider whether all applicable standard project requirements and mitigation measures (see Chapter 2.5) identified in the Program EIR have been incorporated into the project. Standard project requirements are mandatory elements for every project in the VTP and ensure that significant adverse environmental impacts are avoided. Project requirements are prescriptive or procedural-based management practices (e.g., consultation with trustee agencies on resources of concern such as endangered species) that reduce or avoid potential environmental impacts. Some procedural-based project requirements allow for the development of project specific requirements to address project-scale site conditions that are not fully considered in the standard project requirements.

The Project Scale Analysis requires the applicant to contact agencies such as the California Department of Fish and Wildlife and Regional Water Quality Control Boards for consultation during the project evaluation process. Fuel Break and Ecological Restoration projects outside the WUI will require a public forum/workshop, which provides the public a venue to voice concerns over the potential for project specific environmental impacts or identify areas of concern not considered by the project proponent. Following the forum, the project proponent will be able to adjust the project to address any concerns. This is the second opportunity for the public to be part of the VTP process.

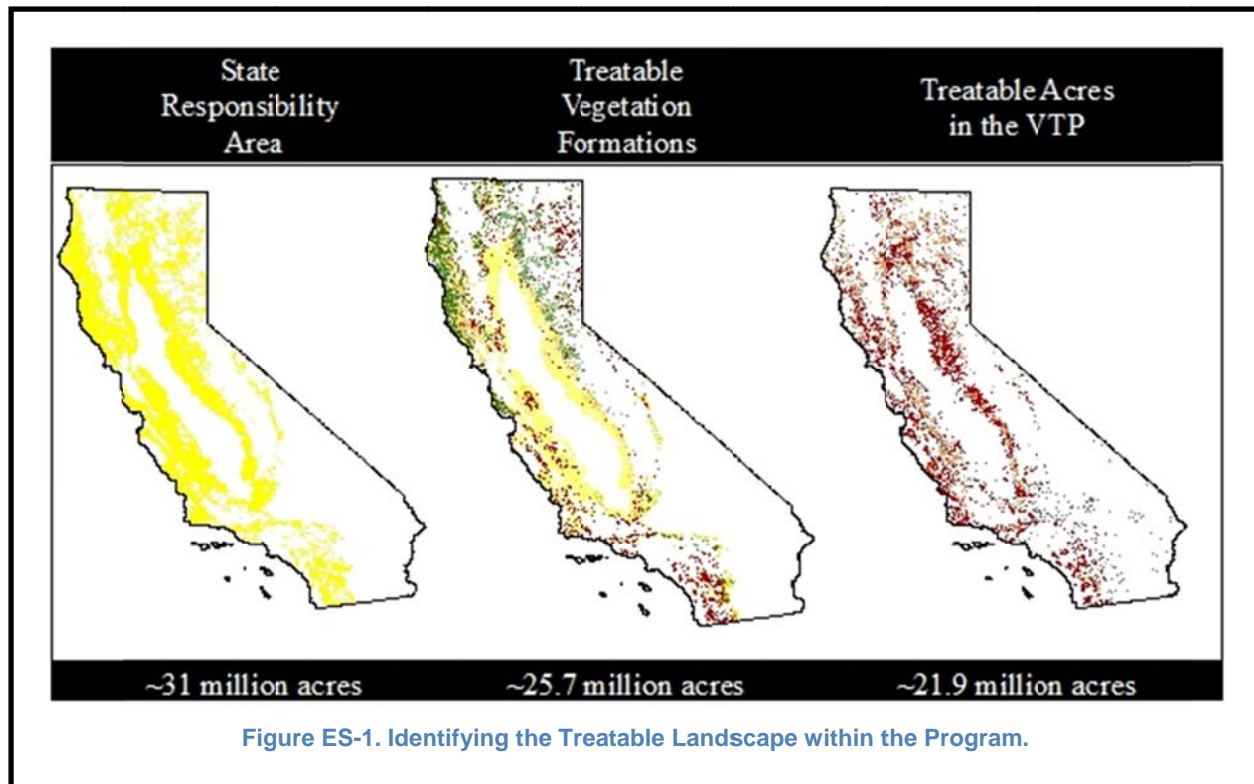
Once a Project Scale Analysis and all supporting documentation are complete, the project will be evaluated for approval on three levels: local CAL FIRE Unit/Contract County, CAL FIRE Region, and State Program levels. Projects will be approved under

the VTP only once it has been found to be consistent with this Program EIR and all applicable project requirements and mitigation measures have been included. Any applicable project requirements and mitigation measures would then be incorporated into the project's contract requirements for implementation.

CEQA compliance and implementation will be coordinated through local CAL FIRE Units/Contract Counties. Implementation monitoring is required for all VTP-approved projects to ensure that all projects adhere to requirements and mitigation measures. Follow-up effectiveness monitoring and project reporting are also required elements of the VTP. A more formal cooperative adaptive management process is a long-term goal of the VTP. Additional details regarding the process for implementing the VTP are found in Chapter 2 and more information regarding monitoring, adaptive management, and Program communication is in Appendix I.

E.5 GEOGRAPHIC SCOPE OF THE VTP

Nearly all VTP projects will occur on privately owned lands. Of the over 101 million acres of land in California, approximately 31 million acres fall within CAL FIRE's SRA. The SRA is the area of the state where the State is financially responsible for the prevention and suppression of wildfires. SRA does not include lands within city boundaries or in federal ownership. However, not all of the SRA is appropriate for treatment given the constraints of the three general treatment types or the potential for damaging fire behavior. The total land area where the vegetation formation assemblages are appropriate for a WUI, fuel break, or ecological restoration treatment is approximately 22 million acres, or 71 percent of the SRA (Figure ES-1).



Approximately 49 percent of the treatable acres are appropriate for the WUI treatment type, with the majority of the acres in the Sierra Nevada and Klamath/North Coast bioregions. Ecological restoration accounts for approximately 34 percent of the treatable acres; most of the ecological restoration acreage appears in the Klamath/North Coast, Modoc, and Sierra Nevada bioregions. Fuel breaks make up the smallest proportion of the treatments, accounting for only 18 percent of the area available for treatment. This is because fuel breaks are narrower and generally located along topographic ridgelines or roads. Further information on how the treatment types are delineated is contained in Chapters 2 (2.2.2) and 4 (4.1).

Within the approximately 22 million acres potentially subject to vegetation treatments, CAL FIRE plans to implement projects on approximately 60,000 acres per year, with a total of 600,000 acres treated over the 10-year period. This represents a doubling of vegetation treatment activity compared to the existing Vegetation Management Program. This proposed level of activity would treat approximately 0.2 percent of the SRA annually, or two percent of the SRA over a 10-year period. At an estimated project size of 260 acres, this amounts to approximately 230 projects per year or 2,300 projects over a ten-year period.

The above numbers are the basis for the analysis presented in this Program EIR. However, the actual acres treated annually in any portion of California will vary year-to-year based on several factors, such as the availability of cooperating landowners,

funding, extended fire seasons, regional or statewide seasonal open burning suspensions, crew and equipment availability, unfavorable weather conditions, and access constraints. If the acreage proposed for treatment in a bioregion exceeds 110 percent of the projected yearly average for the bioregion, further project level analysis would be required to ensure that significant environmental effects do not occur. This determination will be made by the CAL FIRE Sacramento CEQA/Program Coordinator. Additional details about the geographic scope of the VTP are found in Chapters 2 and 3.

E.6 ALTERNATIVES ANALYZED

The following Program alternatives were developed for analysis:

No Project – This alternative is required by CEQA. If CAL FIRE took no further action, existing vegetation treatment programs, such as the Vegetation Management Program (VMP) and California Forest Improvement Program (CFIP), would continue to operate using their previously approved EIRs and departmental procedures to satisfy CEQA requirements. This alternative applies to an existing landscape that is larger than the landscape in the Proposed Program and below that for the Alternatives, since both existing programs apply to the entire SRA (i.e., approximately 31 million acres). This Alternative would continue to treat 30,000 acres annually.

Proposed Program – The proposed Vegetation Treatment Program limits vegetation treatment efforts to areas within the SRA where assets, both urban and natural, are at greatest risk from wildland fire. Treatment activities would be limited to three general project types, which include vegetation treatments to protect the WUI, fuel break installation and maintenance, and enhancing fire resiliency through ecological restoration. The available landscape to treat (approximately 22 million acres) would be smaller than the “No Project” Alternative because the scope is limited to areas that qualify for one or more of the specified project and vegetation types. This program proposes the treatment of 60,000 acres annually.

Alternative A: WUI Only – The WUI Only Alternative focuses on vegetation treatments planned specifically to protect assets within the WUI. Projects would primarily consist of community and infrastructure protection, establishing safe areas of refuge, and enhancing vegetation clearance proximate to structures. Vegetation management priorities and ecological restoration opportunities outside of the WUI would not be included under this proposed alternative. Wildland fire control success outside the WUI would rely primarily on initial attack and extended attack resources without the strategic benefit of pre-treated fuels or newly constructed/maintained fuel breaks. The project evaluation process, analysis procedures, treatment options, and mitigations would be the same as those for the Proposed Program. The available landscape to treat would be

approximately 11 million acres in the SRA, but the projected average annual treatment acreage would be 60,000 acres.

Alternative B: WUI and Fuel Breaks – In addition to vegetation treatment efforts designed specifically to protect values within the WUI, fuel breaks would also be maintained or installed in favorable topographic locations to aid in wildland fire control efforts outside of the WUI. The project evaluation process, analysis procedures, treatment options, and mitigations would be the same as those for the Proposed Program. The available landscape to treat would be significantly larger than the “WUI Only” Alternative A due to the addition of fuel break-appropriate landscapes; however, it would remain less than the area for the Proposed Program. This alternative would also treat 60,000 acres annually.

Alternative C: Very High Fire Hazard Severity Zone – CAL FIRE is mandated by Public Resources Code § 4201-4204 and Government Code § 51175-89 to identify fire hazard severity zones statewide. These zones reflect areas of significant fire hazard based on fuels, terrain, weather, and other relevant factors. To reduce the wildland fire threat in high hazard areas, fuel treatments under Alternative C would focus specifically on areas that are classified as a “Very High Fire Hazard Severity Zone.” The project evaluation process, analysis procedures, treatment options, and mitigations would be the same as those for the Proposed Program. This alternative has the fewest available acres for treatment (~11.8 million acres) but it is still projected to treat 60,000 acres annually.

Alternative D: Treatments that Minimize Potential Impacts to Air Quality – Alternative D has limitations on the number of acres that could be treated with prescribed fire to reduce the potential health and environmental impacts from poor air quality. In this alternative, prescribed fire use would be considerably limited; however, some of those acres could be treated with hand or mechanical treatments. Overall, the landscape available for treatment with this alternative is the same as that for the Proposed Program, but the projected treated acres are fewer at 36,000 acres annually.

The Proposed Program would meet the objectives established for the VTP (see E.3) to a greater degree than the Alternatives and No Project (Status Quo) options. Specific details about each alternative and the environmental impacts associated with each alternative can be found in Chapters 3, 4, and 5.

E.7 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This Program EIR evaluates the full range of potential environmental impacts identified in Appendix G of the CEQA Guidelines (Table ES-1). These impacts are discussed throughout Chapter 4 which identifies the Environmental Setting, Environmental Impacts, and Mitigation Measures for each resource of concern listed in Table ES-1 below. If a proposed project could not maintain project impacts at less than significant levels through the application of project requirements and mitigation measures, it would be disqualified from approval under the VTP and would have to be abandoned, re-designed, or use an alternative CEQA process (e.g., supplemental EIR) to proceed. This approach to limiting environmental impacts will preclude the creation of new significant impacts or considerable contributions to existing environmental problems. There are 87 standard project requirements identified within the Program EIR. These are repeated in three locations in the document: Chapter 2.5, Chapter 4, and Chapter 7. The determination of environmental impacts assumes projects will properly implement all standard project requirements.

Table ES-1. Comparison of the environmental impacts to resources implementing the Proposed Program or the Alternatives. SPRs are standard project requirements.

Resource of Concern	Significant and Unavoidable	Less than Significant with Mitigation Measures	Less than Significant with SPRs Implemented	Less Than Significant
Biological Resources			X	
Geology, Hydrology, and Soils			X	
Hazardous Materials, Public Health and Safety			X	
Water Quality			X	
Archeological, Cultural & Historic Resources			X	
Noise			X	
Recreation			X	
Utilities and Energy				X
Transportation and Traffic			X	
Population, Employment, Housing, & Socio-Economic Well-Being				X
Air Quality		X		
Aesthetics and Visual Resources			X	
Climate Change/Greenhouse Gas			X	

E.8 CUMULATIVE EFFECTS SUMMARY

The potential environmental impacts related to projects that qualify for approval under the VTP will be less than significant through the implementation of standard project requirements (SPRs) and any identified project specific requirements (PSRs). Where potentially significant impacts cannot be entirely avoided, mitigation measures will be required to compensate for resource impacts (see Chapter 4.12, Air Quality). If a proposed project cannot maintain project impacts and contributions to cumulative impacts at less than significant levels through the application of project requirements and mitigation measures, it will be disqualified from approval under the VTP and will be required to be abandoned, re-designed, or use an alternative CEQA process (e.g., supplemental EIR) to proceed. This approach to limiting environmental impacts will preclude the creation of new significant cumulative impacts or considerable

contributions to existing cumulative environmental problems. Chapter 5 provides a detailed discussion of cumulative impact issues by environmental resources topic.

E.9 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

No reasonably foreseeable significant irreversible environmental changes have been identified that would result from implementation of the VTP or the identified Alternatives. The VTP is projected to treat 0.2 percent of the SRA per year, or 2 percent of the SRA in a 10-year planning horizon. This relatively small spatial footprint along with a robust suite of project requirements and mitigation measures will make irreversible damage from environmental impacts of the VTP unlikely.

E.10 AREAS OF KNOWN CONTROVERSY

Section 15123(b) of the State CEQA Guidelines requires that an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public. The following are areas of controversy known to CAL FIRE:

- Air quality impacts from prescribed burning
- Cumulative impacts to chaparral communities from program treatments and wildfires
- Impacts to water quality, biological resources, and human health
- Impacts to geological features and soil erosion
- Inclusion of herbicide applications as a Program activity
- Introduction or spread of invasive plants
- Potential for loss of life, property, and resource values due to escaped prescribed fire
- Impact to climate change and greenhouse gases Ability to address the ecological and social complexities of the state in a single Program
- Impacts to cultural resources

These areas of known controversy will be addressed through the implementation of the SPRs, PSRs, and mitigation measures outlined in Chapters 2 and 4.

E.11 SUMMARY

The Board recognizes the necessity for CAL FIRE to implement a robust program of vegetation treatments to fulfill its mission to safeguard the people and protect the

property and resources of California. The VTP provides a framework for prioritizing, planning, implementing, and monitoring fuel treatments across the SRA. This Program EIR discloses to interested parties the scope of the VTP, potential foreseeable environmental impacts from implementing the VTP, and the proposed project limitations and mitigations designed to lessen or avoid environmental impacts. Through project monitoring and participation in adaptive management processes, it is anticipated that the VTP will be able to incorporate emerging science and the changing needs of the State as the Program matures.