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## Transportation

This section describes the existing transportation system, with focus on rural road networks in the treatable landscape, identifies applicable regulatory requirements, and evaluates impacts to traffic operations, bicycle, pedestrian, and transit facilities, roadway hazards and obstructions, and emergency access resulting from implementation of the proposed CalVTP.

Comments on the Notice of Preparation related to transportation included comments from the California Department of Transportation (Caltrans) (see Appendix A). These are addressed in Sections 3.15.2 and 3.15.3, below.

### Environmental Setting

#### Study Area

The SRA encompasses 31 million acres of public and private land throughout the state, of which 20.3 million acres are considered treatable landscape for the purposes of the CalVTP. CAL FIRE has a legal responsibility to provide fire protection on all SRA lands, which are defined based on land ownership, population density and land use (CAL FIRE 2012). SRAs generally exclude densely populated areas, agricultural lands, or lands administered by the federal government. Within the treatable landscape are state and locally managed roadways that would provide access to treatment areas. The proposed CalVTP would annually treat approximately 250,000 acres of SRA lands with a combination WUI fuel reduction, fuel break, and ecological restoration treatments. Implementation of treatment activities would require the short-term use of state and locally managed roadways.

#### Roadway System

The three basic types of roadways in the treatable landscape include interstate highways, state routes, and local roadways. Roadways are generally classified according to Federal Highway Administration (FHWA) Functional Classification Guidelines and the designed level of mobility and land access. Local roadways provide the greatest access to adjacent land via driveways and other roadways and are consequently generally smaller than interstate highways and state routes. Other roadway types in the treatable landscape are arterials and collectors. Arterials emphasize a high level of mobility for through movement and consequently have higher capacity and speed with relatively little accessibility to adjacent land. Collectors offer a combination of both functions. The treatable landscape is served directly and/or indirectly by one or more of these roadway types.

#### Level of Service Definitions

Level of service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay for intersections or travel speed for highways generally accompanies the LOS designation. Methods for determining LOS are published in the Highway Capacity Manual (HCM) (Transportation Research Board 2010). Table 3.15-1 summarizes the LOS descriptions for two-lane conventional highways. Table 3.15-2 displays the delay range associated with each LOS category for signalized and unsignalized intersections. All LOS designations are present in the roadways within the treatable landscape.

Table 3.15-1 Two-Lane Conventional Highway Level of Service Definitions

| LOS | Traffic Description |
| --- | --- |
| A | Motorists experience high operating speeds and little difficulty passing. |
| B | Passing demand and passing capacity are balanced. |
| C | Most vehicles travel in platoons and speeds are noticeably curtailed. |
| D | Platooning increases significantly, passing demand is high. |
| E | Demand is approaching capacity, passing is virtually impossible, and speeds are seriously curtailed. |
| F | Demand flow in one or both directions exceeds the segment’s capacity. Operating conditions are unstable, and heavy congestion exists. |

Source: Transportation Research Board 2016

Table 3.15-2 Intersection Level of Service Definitions

| LOS | Description (for Signalized Intersections) | Average Delay (Seconds/Vehicle) Signalized Intersections | Average Delay (Seconds/Vehicle) Unsignalized Intersections |
| --- | --- | --- | --- |
| A | Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths. | < 10.0 | < 10.0 |
| B | Operations with low delay occurring with good progression and/or short cycle lengths. | > 10.0 to 20.0 | > 10.0 to 15.0 |
| C | Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | > 20.0 to 35.0 | > 15.0 to 25.0 |
| D | Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | > 35.0 to 55.0 | > 25.0 to 35.0 |
| E | Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay. | > 55.0 to 80.0 | > 35.0 to 50.0 |
| F | Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths. | > 80.0 | > 50.0 |

Note: LOS = level of service; V/C ratio= volume-to-capacity ratio

LOS at signalized intersections and roundabouts based on average delay for all vehicles. LOS at unsignalized intersections is reported for entire intersection and for minor street movement with greatest delay.

Source: Transportation Research Board 2016

Tables 3.15-3 shows the generalized service volumes which denote the maximum values that can be maintained and still be within the LOS range, or the maximum volumes that can be achieved for that LOS category. The simplified and generalized roadway segment LOS criteria shown is for rural two-lane highways which would be the primary road type that would provide access to and within treatment areas. LOS for rural highways is largely determined by roadway geometry factors, such as grades, vertical and horizontal curves, and the presence of passing opportunities. In mountainous topography and particularly through canyons, roadway LOS can be relatively poor, even absent substantial traffic volumes. The volume thresholds apply to one direction of travel; and thus, for roadways that are bi-directional, average annual daily traffic should be divided by two.

Table 3.15-3 Rural Two-Lane Highway Level of Service Thresholds

| Speed Limit (mph) | Upper Limit Daily Traffic Volume Threshold1,2 LOS B | Upper Limit Daily Traffic Volume Threshold1,2 LOS C | Upper Limit Daily Traffic Volume Threshold1,2 LOS D |
| --- | --- | --- | --- |
| 45 | 3,200 | 7,700 | 12,300 |
| 50 | 7,700 | 12,300 | 16,900 |
| 55 | 12,300 | 16,900 | 21,500 |
| 60 | 16,900 | 21,500 | 26,100 |
| 65 | 21,500 | 26,100 | 30,700 |

Notes: mph = miles per hour; LOS = Level of Service.

1. Assumes a truck percentage of 2 percent

2. Assumes mountainous terrain

Source: FHWA 2017

#### Public Transit

Public transit service is provided by various agencies throughout the state. Local and regional transit organizations offer a variety of transit options, including buses, subways, and light rail. Service is provided with varying frequency and cost. Due to the rural and remote character of much of the transportation network within the treatable landscape, transit service and facilities are likely to be intermittent or absent in many locations within the treatable landscape.

#### Bikeways and Pedestrian Circulation

The bicycle and pedestrian network and the applicable plans, policies, and standards are highly variable across regional and local agencies within California. However, agencies typically conform to the Caltrans Highway Design Manual bikeway facility classification system, described as follows:

* **Class I bikeways** are facilities with exclusive right-of-way for bicyclists and pedestrians, away from the roadway and with cross flows by motor traffic minimized. In some areas, pedestrian facilities are separated from the bikeway.
* **Class II bikeways** are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of a roadway for bicycle travel.
* **Class III bikeways** are shared routes for bicyclists on streets with motor traffic not served by dedicated bikeways to provide continuity to the bikeway network.

#### Past and Current Vegetation Treatments and Wildfire

Treatments occur within the treatable landscape that result in temporary increases in traffic. As described in Chapter 1, “Introduction,” and Section 2.3.1, “Past and Current Treatments,” vegetation treatment currently occurs around the state under several other wildfire risk reduction programs implemented by various federal, state, and local agencies. In 2017–2018, CAL FIRE treated approximately 33,000 acres in California using the same treatment activities as proposed under the CalVTP.

CAL FIRE does not have data regarding the total trips or VMT for current vegetation treatment. Treatment crews typically originate from the region of the treatment site, as directed by the local CAL FIRE Unit manager. Under existing conditions, crew sizes and equipment hauled to and from treatment sites varies based on treatment location, type, and size. Therefore, due to the lack of data regarding current vegetation treatment activities; the number heavy-vehicle trips to haul equipment and materials, trips associated with the workers commuting to and from the treatment areas, and the associated trip lengths are not known. Thus, the VMT generated by current vegetation treatments cannot be meaningfully quantified, but typically require a small number of trips per day on an individual basis, considering that vegetation treatment projects are generally consistent with construction activities in terms of the temporary nature of activities, trip generation characteristics, and types of vehicles and equipment required.

Wildfire can occur throughout the state and require emergency response in the form of personnel and equipment. In cases where a wildfire exceeds the capacity of a local CAL FIRE unit, emergency resources may be diverted to a wildfire from elsewhere in the state or some cases, elsewhere in the country or internationally (refer to Section 3.9.2 in Section 3.9, “Energy Resources,” for examples). Additional VMT results from this wildfire response. During wildfire, the main goal is containment and reducing impacts to human life and property; efficient travel and VMT minimization are not prioritized.

### Regulatory Setting

#### Federal

##### Federal Highway Administration

FHWA, an agency of the U.S. Department of Transportation, provides stewardship over the construction and preservation of the nation’s highways, bridges, and tunnels. FHWA also conducts research and provides technical assistance to State and local agencies to improve safety, mobility, and livability and to encourage innovation in these areas. FHWA also provides regulation and guidance related to work zone safety, mobility, and temporary traffic control device implementation. FHWA regulation and guidance related to work zone safety, mobility, and temporary traffic control device implementation is relevant because it informs the standard project requirements of the proposed CalVTP addressed within this PEIR.

#### State

##### California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining the state highway system and ramp interchange intersections. Caltrans is also responsible for highway, bridge, and rail transportation planning, construction, and maintenance.

Environmental planning for transportation improvement projects involving California state highways follow the procedures set forth in the agency’s Standard Environmental Reference and Section V of Guidance for Compliance Environmental Handbook. This guidance is intended for transportation-specific improvement projects where Caltrans operates as the CEQA lead agency but can also be used by other agencies, including local agencies, for ideas supplemental to their own procedures.

Caltrans provides guidance to local agencies on assessing the performance of rural roadways to enhance safety, mobility, accessibility and productivity under continued use. Caltrans requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code. Treatment activities would require the short-term use of state and locally managed roadways; and thus, Caltrans guidance and standards specifically related to the performance of rural state roadways and vehicle size and weight limitations would apply to the proposed CalVTP.

##### California Manual on Uniform Traffic Control Devices

This *California Manual on Uniform Traffic Control Devices* (California MUTCD) is published by the California Department of Transportation (Caltrans) and is issued to adopt uniform standards and specifications for all official traffic control devices in California. Temporary traffic control (TTC) applies when the normal function of the roadway, or a private road open to public travel, is suspended and is intended to provide for the reasonably safe and effective movement of road users through or around TTC zones while reasonably protecting road users, workers, responders to traffic incidents, and equipment. TTC planning provides for continuity of the movement of motor vehicle, bicycle, and pedestrian traffic (including accessible passage); transit operations; and access to property and utilities. TTC plans should be prepared by persons knowledgeable about the fundamental principles of TTC and work activities to be performed, and the design, selection, and placement of TTC devices for a TTC plan should be based on engineering judgment (Caltrans 2019). California MUTCD TTC standards and specifications would apply to TTC or other related plans developed as part of, or in response to the proposed CalVTP.

##### Transportation Management Plan Guidelines

The Caltrans *Transportation Management Plan Guidelines (2015)* identify the processes, roles, and responsibilities for preparing and implementing Transportation Management Plans (TMPs), as well as useful strategies for reducing congestion and managing work zone traffic impacts. TMP strategies are required for all planned construction, maintenance, and encroachment permit activities within Caltrans right-of-way and requires a Caltrans encroachment permit. A TMP encompasses activities that are implemented to minimize traffic delays that may result from lane restrictions or closures in a work zone. TMP strategies are designed to improve mobility, as well as safety for the traveling public and highway workers. TMP strategies would be required if treatment activities would require a Caltrans encroachment permit. Additionally, TMP guidance will inform the standard project requirements of the proposed CalVTP addressed within this PEIR.

##### Senate Bill 743

Senate Bill (SB) 743, passed in 2013, required the Governor’s Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, “automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.”

OPR published its proposal for the comprehensive updates to the CEQA Guidelines in November 2017 which included proposed updates related to analyzing transportation impacts pursuant to Senate Bill 743. These updates indicated that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts. In December of 2018, OPR published the most recent version of the Technical Advisory on Evaluating Transportation Impacts (December 2018) which provides guidance for VMT analysis. The Office of Administrative Law approved the updated CEQA Guidelines and lead agencies have an opt-in period until July 1, 2020 to implement the updated guidelines.

As noted in the updated guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT. The guidance provided thus far relative to VMT significance criteria is focused on residential, office, and retail uses which would not apply to the rural and temporary transportation uses that would occur with implementation of CalVTP. For rural land uses, OPR guidance states that projects in rural areas outside of a metropolitan planning organization, as in the case of many locations of the treatable landscape, fewer options may be available for reducing VMT and significance thresholds may be best determined on a case-by-case basis. Additionally, as stated above, lead agencies have until July 1, 2020 to implement the updated guidelines.

#### Local

When state agencies, including CAL FIRE, are conducting governmental activities under the authority of state law or the State Constitution, in this case, treatments implemented under the proposed CalVTP, they are exempt from local government plans, policies, and ordinances (unless a constitutional provision or statute directs otherwise). Nonetheless, CAL FIRE voluntarily seeks to operate consistently with local governance to the extent feasible. Given its statewide extent and the possible number of local and regional responsible agencies, this PEIR does not identify potentially applicable local government plans, policies, and ordinances.

The transportation metrics and standards set by regional and local agencies and plans are highly variable with respect to LOS. What is considered acceptable delay in a dense urban environment may not be acceptable in a rural environment. Types of local regulations relevant to transportation include City and County General Plans, zoning ordinances, traffic impact analysis guidelines, and associated policies. State law requires cities and counties to adopt general plans, which must contain a transportation element which include goals and policies related to transportation and traffic. Many jurisdictions and regional transportation agencies also have congestion management plans (CMPs) which are used to monitor and manage traffic congestion on roadways that comprise the CMP network.

This PEIR assumes that any vegetation treatments proposed by local or regional agencies under the CalVTP would be consistent with local plans, policies, and ordinances to the extent particular projects are subject to them, as required by SPR AD-3.

### Impact Analysis and Mitigation Measures

#### Analysis Methodology

The analysis of transportation impacts related to implementation of the CalVTP includes qualitative analysis of temporary traffic operations, bicycle, pedestrian, and transit facilities, hazards, emergency access, and VMT. The analysis is based on details of typical treatment activities, the equipment utilized for treatments, and methods for transporting the equipment. Significance determinations account for the influence of relevant SPRs (i.e., TMPs), which are incorporated into treatment prescriptions and project design and listed below.

* **SPR AD-3 Consistency with Local Plans, Policies, and Ordinances**: The project proponent will design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
* **SPR HYD-2 Avoid Construction of New Roads:** The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types, including treatment maintenance.
* **SPR TRAN-1 Implement Traffic Control during Treatments:** Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the CalVTP. Measures included in the TMP could include (but are not be limited to) construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities, flaggers for lane closures to provide temporary traffic control along affected roadway facilities, treatment schedule restrictions to avoid seasons or time periods of peak vehicle traffic, haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of vegetation treatment projects. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.

##### Methodology for Determining VMT Threshold of Significance

Section 15064.3 was added to the State CEQA Guidelines effective December 28, 2018 as part of a comprehensive guidelines update. The section addresses the determination of significance for transportation impacts, which requires that the analysis be based on VMT instead of a congestion metric (such as LOS). The change in the focus of transportation analysis is the result of legislation (SB 743, Statutes of 2013) and is intended to change the focus from congestion to, among other things, reduction in greenhouse gas emissions, encouraging mixed use development, and other factors. Pursuant to State CEQA Guidelines Section 15064.3(c), this change in analysis may be implemented now and is mandated to be addressed beginning July 1, 2020. Because the CalVTP will apply to vegetation treatment projects after the date on which VMT is required to be considered, it is included in the analysis in this PEIR.

SB 743 requirements are most applicable to travel related to urban land uses, such as residential, employment, or commercial development projects; however, requirements are not limited to those types of projects. State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project, including land use projects (Section 15064.3(b)(1)) and transportation projects (Section 15064.3(b)(2)). Vegetation treatment projects under the proposed CalVTP are not land use or transportation projects, so neither of these sections apply. However, State CEQA Guidelines Section 15064.3(b)(1) notes that projects that would decrease VMT in the project area as compared to existing conditions should be presumed to have a less than significant effect. State CEQA Guidelines Section 15064.3(b)(3) (Qualitative Analysis) explains that there may be conditions under which a qualitative rather than quantitative analysis of VMT is appropriate. This section states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project’s VMT qualitatively. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate.

Vegetation treatment projects occur on undeveloped landscapes. They may be located next to urban land uses or in rural locations well outside of metropolitan areas. Due to the variability of the scale and location, the number of vehicle trips and trip lengths are not feasible to precisely predict at this time, but they would typically require a small number of trips per day on an individual basis, considering that vegetation treatment projects are generally consistent with construction activities in terms of the temporary nature of activities, trip generation characteristics, and types of vehicles and equipment required. The Technical Advisory on Evaluating Transportation Impacts (OPR 2018) notes that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise (OPR 2018). Individual vegetation treatment projects under the CalVTP are likely to generate fewer than 110 trips per day, recognizing that would accommodate up to 50 vehicles bringing crews and equipment to a treatment site in a day (i.e., 100 trips commuting to and from a treatment site each day, plus a few additional incidental trips during the day). Therefore, using OPR guidance, individual vegetation treatments that would generate fewer than 110 trips per day would result in a less-than-significant VMT impact.

The change in VMT considered in this PEIR would be not only for individual treatment projects, but also for the proposed CalVTP program as a whole. Individual treatment projects would contribute to the total annual change in VMT attributable to the CalVTP. The VMT of the total annual program would need to be compared to a different threshold than 110 trips per day, because it comprises many individual vegetation treatment projects carried out each year with locations potentially across much of the state. The Technical Advisory describes no scenario analogous to the overall CalVTP, i.e., where a natural resources management program is proposed to consist of an array of individual, in-field activities on different sites over a broad geography. Inherently, managing trip length is not feasible for such a natural resources management program scenario, because of the variability of location of individual activities, broad geography of the program, and special skill set of vegetation treatment workers. Therefore, qualitative analysis allowed by Section 15064.3(b)(3) provides the most applicable approach for analyzing the change in VMT resulting from implementation of the CalVTP.

Given the absence of a quantitative method or applicable Technical Advisory scenario, this PEIR relies on fundamental CEQA principles for defining a qualitative threshold of significance for VMT. The statutory and regulatory definition of “significant effect on the environment” provides the fundamental principle applicable to thresholds of significance. A significant effect on the environment is defined in CEQA as a “substantial or potentially substantial adverse change in the environment.” (PRC Section 21068). For purposes of PRC Section 21100, governing actions for proposed state projects, subpart (a) limits significant effects on the environment to “substantial or potentially substantial adverse changes in physical conditions…” This definition of significant effect on the environment is repeated in Sections 15002(g) in Article 1, General, under Section 15002, General Concepts, and 15382 in Article 20, Definitions. Based on these provisions, this PEIR considers whether an adverse change in physical conditions would occur. In the case of VMT, an adverse change would be an increase in VMT, because statutory environmental policy seeks to decrease VMT. Consequently, a qualitative threshold of no net increase in VMT is used in this PEIR to determine significance of the annual implementation of the CalVTP program. A relative increase in VMT under the CalVTP within the treatable landscape, as compared to existing conditions, is be determined to result in a significant effect on the environment (see listing under Thresholds of Significance, below).

#### Thresholds of Significance

Thresholds of significance are based on Appendix G of the State CEQA Guidelines and professional judgment. The following discussion identifies the thresholds of significance used to assess impacts to the transportation and circulation system from implementation of treatments under the proposed CalVTP.

Implementation of the CalVTP would result in a significant transportation impact if it would:

* conflict with a program, plan, ordinance, or policy addressing roadway facilities;
* result in prolonged road closures;
* conflict with a program, plan, ordinance, or policy addressing bicycle, pedestrian, and transit facilities;
* substantially increase hazards due to a geometric design features or incompatible uses;
* result in inadequate emergency access; or
* result in a net increase in VMT.

#### Issues Not Evaluated Further

Implementation of the CalVTP would not alter the physical transportation network surrounding where vegetation treatments would occur. Therefore, the CalVTP would not adversely affect any existing or planned public transit, bicycle, or pedestrian facilities. Additionally, due to the temporary nature of the treatment activities at individual locations, the rural character of much of the transportation network in and around the treatable landscape, and the anticipated dispersion of the individual vegetation treatment sites within the treatable landscape, the project would not generate substantial pedestrian, bicycle, or transit demand. Thus, the project would not conflict with a program, plan, ordinance or policy addressing pedestrian, bicycle, and transit facilities. This issue is not discussed further.

Implementation of the CalVTP would not locate any new development or land uses within the treatable landscape that would require installation of emergency access routes, or alter any existing roadways/emergency access routes. Emergency fire suppression services to ensure safety during prescribed burning would be available onsite during the treatment. Therefore, implementation of the CalVTP would not result in a degradation of emergency access. Additionally, prescribed burns, mechanical vegetation treatments, and manual vegetation treatments would always include between one and ten fire engines on-site during treatment activities. Thus, providing on-site emergency services would ensure that project-specific activities would not result in inadequate emergency access to any areas. This issue is not discussed further.

#### Impact Analysis

Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures

Vegetation treatments implemented under the CalVTP would adhere to the SPRs that require consistency with local traffic operations policies and standards to the extent the project is subject to them, and would require that a TMP be prepared to manage and minimize potential temporary traffic operations effects resulting from individual vegetation treatment projects. Additionally, effects related to traffic operations during vegetation treatments under the CalVTP would be localized and temporary. Therefore, temporary traffic operations impacts would be **less than significant.**

The implementation of vegetation treatments under the CalVTP would not result in long-term operational increases in vehicular traffic along roadways surrounding vegetation treatment sites because vegetation treatments are temporary in nature. However, vegetation treatment projects under the CalVTP would temporarily increase vehicular traffic along roadways used to access treatment areas. Treatment-related traffic would include heavy-vehicle trips to haul equipment and materials, and trips associated with the workers commuting to and from the treatment areas. The number of haul trips and workers trips to and from the treatment areas would vary based on the size of the area being treated, the type of treatment being implemented, and the duration of the vegetation treatments. Additionally, the vegetative debris produced by mechanical or manual treatments may be processed into several products: electricity, soil additives and amendments, engineered/composite wood, firewood, paper, densified wood, and potentially biofuels. This could result in additional haul truck trips to processing facilities. Due to the variability of the scale, location, and duration of vegetation treatment projects that could be implemented under the CalVTP, the number of trucks, truck routing, number of employees, employee parking, truck idling, lane closures, and a variety of other treatment-related activities are unknown at this time. Therefore, it would be speculative to conduct any type of quantitative analysis.

As shown in Table 3.15-4, between 20 and 45 workers would be necessary for the most labor-intensive vegetation treatment projects under a typical CalVTP scenario, and the hauling of heavy equipment would be limited to the trips needed to get the equipment to and from the individual vegetation treatment areas. These trips would be short-term and in some cases workers meet at off-site and carpool to the vegetation treatment area.

Table 3.15-4 Workers by Treatment Activity

| Treatment Activity | Average Workers |
| --- | --- |
| Prescribed Burn | 45 |
| Mechanical Treatment | 20 |
| Manual Treatment | 20-40 |
| Prescribed Herbivory | 1-2 |
| Herbicide Application | 2-4 |

In some remote areas of the treatable landscape, the circulation network includes roadway facilities with limited lane and shoulder widths, curvilinear alignment, low design speeds, and roadways that pass through mountainous terrain with no available services. In these areas, the hauling of heavy machinery (e.g., bulldozers, excavators) and operation of large trucks occurring along roadways with limited lane width, little or no roadway shoulders, and curvilinear alignment (generally located in rural, remote, and mountainous regions), could potentially result in disruptions to traffic operations along the roadway network. Thus, due to the nature of the study area roadway network and the vehicle trip types generated by vegetation treatment activities, the relatively small number of treatment-generated trips could result in temporary roadway obstructions and degradation of traffic operations at intersections and roadway segments if project-generated traffic is not appropriately planned and managed.

Qualifying projects under the proposed CalVTP would integrate various SPRs into treatment design that would avoid and minimize impacts to traffic operations during implementation of vegetation treatments. SPR TRAN-1 requires that if traffic generated by the treatment activity would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments, a TMP will be prepared prior to initiating vegetation treatment activities. The TMP will include measures to avoid and minimize traffic obstructions, prolonged roadway closures, and the degradation of traffic operations (i.e., LOS) along affected roadway facilities, as needed. The scope of the TMP will depend on the type, intensity, and duration of the specific vegetation treatments under the CalVTP. Measures included in the TMP could include (but are not be limited to) notification of vegetation treatments, temporary traffic control signage, and flaggers for lane closures. Additionally, the TMP could include transportation demand management measures such as treatment schedule restrictions, delivery time of day restrictions, and worker commute time restrictions. These measures would promote safe and efficient mobility during vegetation treatments and would avoid or minimize substantial traffic delays resulting from lane or roadway closures. The TMP would also be submitted to the applicable department within the local agency with jurisdiction over the affected transportation facilities.

Additionally, SPR AD-3 requires that treatments be designed and implemented in a manner that is consistent with applicable local plans (e.g., general plans), policies, and ordinances to the extent the treatment is subject to them. With implementation of SPR AD-3, traffic generated by vegetation treatment activities under the CalVTP would comply with local standards and policies including, but not limited to traffic operations standards and policies. Therefore, with implementation of SPR AD-3, the vehicle traffic associated with vegetation treatment activities under the CalVTP would not conflict with local programs, plans, ordinances, or policies addressing the circulation system to the extent the project is subject to them.

Each qualifying vegetation treatment under the CalVTP would be required to adhere to the SPRs identified above that manage and minimize potential effects to traffic operations during treatment activities. Additionally, project-generated effects on traffic operations would be localized and temporary, and the project proponent would prepare and implement a TMP to reduce any temporary transportation effects to the degree feasible. Therefore, no conflict with any program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures would occur and this short-term treatment activity related traffic operations impact would be **less than significant**.

##### Mitigation Measures

No mitigation is required for this impact.

Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses

Implementation of the CalVTP would not require the construction or alteration of any roadways, and qualifying vegetation treatment projects under the CalVTP would adhere to SPRs that manage and minimize potential hazards due to smoke generated during prescribe burns. The project proponent would prepare and implement a TMP to avoid and minimize temporary transportation impacts. Therefore, vegetation treatment activities would not substantially increase hazards due to a design feature or incompatible uses. This impact would be **less than significant**.

Agencies with the responsibility for roadway design and operation within the treatable landscape all have adopted and enforce roadway design standards. These standards address a variety of roadway elements, including safety and hazards. The use and enforcement of these design standards prevents the development of transportation infrastructure that would substantially increase hazards because of a design feature. The implementation of vegetation treatments under the CalVTP would not require the construction, re-design, or alteration of any public roadways, and vegetation treatments would not occur within any road right-of-way. Additionally, as detailed in SPR HYD-2, project proponents will not construct or reconstruct any new roads (including temporary roads). Thus, the implementation vegetation treatments under the CalVTP would not substantially increase hazards due to a design feature.

Prescribed burning operations would produce smoke and could potentially affect visibility along nearby roadways such that a transportation hazard could occur. Additionally, as detailed above, the roadway network within and surrounding the treatable landscape includes roadways with limited lane and shoulder widths, curvilinear alignment, and that pass through mountainous terrain. Thus, the hauling of heavy machinery (e.g., bulldozers, excavators) and operation of large trucks along such roadways could potentially result in increased transportation hazards due to incompatible uses.

SPR TRAN-1 requires the project proponent to monitor prescribed burning operations and the associated smoke dispersion. Traffic control operations would be initiated in the event burning operations began to affect traffic safety along any roadways. SPR TRAN-1 also requires that if deemed necessary by the treatment manager, a TMP will be prepared prior to initiating vegetation treatment activities if traffic generated by the qualifying project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. The TMP will include measures to avoid and minimize traffic obstructions and hazards along affected roadway facilities, as needed. The scope of the TMP will depend on the type, intensity, and duration of the specific vegetation treatments under the CalVTP.

Measures included in the TMP could include (but are not be limited to) notification of vegetation treatments, temporary traffic control signage, flaggers for lane closures., and delivery, hauling, and worker commute schedule restrictions. These measures would promote safe and efficient transportation circulation during vegetation treatment projects and would address and plan for any potential transportation hazards resulting from the operation of incompatible vehicles on roadways not designed to accommodate these vehicle classes.

Additionally, as described above, SPR AD-3 requires that treatments be designed and implemented in a manner that is consistent with applicable local plans (e.g., general plans), policies, and ordinances to the extent the treatment is subject to them. Therefore, with implementation of SPR AD-3, traffic generated by vegetation treatment activities under the CalVTP would comply with local standards and policies including, but not limited to any applicable transportation haul and/or oversized trucking requirements. Therefore, with implementation of SPR AD-3, the vehicle traffic associated with vegetation treatment activities under the CalVTP would not conflict with local programs, plans, ordinances, or policies addressing the circulation system to the extent the project is subject to them.

Implementation of the CalVTP would not require the construction, re-design, or alteration of any roadways. Additionally, each qualifying vegetation treatment project under the CalVTP would be required to adhere to the SPRs identified above that manage and minimize potential hazards due to smoke associated with prescribe burns, and the operation of incompatible uses along the roadway network during vegetation treatments. Additionally, project-generated effects to transportation hazards would be localized and temporary, and the project proponent would prepare and implement a TMP to reduce any temporary transportation effects to the degree feasible. Therefore, vegetation treatment activities would not substantially increase hazards due to a design feature or incompatible uses. This impact would be **less than significant**.

##### Mitigation Measures

No mitigation is required for this impact.

Impact TRAN-3: Result In a Net Increase in VMT for the Proposed CalVTP

Under the proposed CalVTP, the scale of treatment activities would substantially increase to achieve the annual treatment target of approximately 250,000 acres. With the increase in treatment acreage, the VMT generated by treatment activities in comparison to existing conditions would also increase because many more individual treatment projects would be implemented. A key goal of the CalVTP is to decrease the occurrence and severity of wildfires. Reduced occurrence and severity of wildfires would result in a reduction in response activity and trips, which would be reasonably expected to decrease in VMT over the long term, compared to conditions without the CalVTP. However, it is not feasible to predicting changes in wildfire occurrence and severity sufficiently to quantify potential changes in fire response VMT. Thus, to meet CEQA’s mandate of good faith disclosure and to not risk understating potential future impacts in light of the uncertainties, this PEIR classifies this impact as **potentially significant**, because VMT generated by vegetation treatments under the CalVTP would increase in comparison to existing conditions, notwithstanding the potential VMT-reducing effects of reduced wildfire response.

Under existing conditions, vegetation treatments are implemented within the treatable landscape by CAL FIRE and other land management agencies and agencies with land ownership responsibilities. As described in Section 2.3.1 of Chapter 2, “Program Description,” CAL FIRE treated approximately 33,000 acres in 2017/2018 and other agencies currently treat additional acres within the treatable landscape. These treatment activities generate a baseline amount of VMT from heavy-vehicle trips to haul equipment and materials, and trips associated with the workers commuting to and from the treatment areas. Additionally, the vegetative debris produced by mechanical and manual treatments is currently hauled by truck to processing facilities.

Under the proposed CalVTP, the scale of these treatment activities would substantially increase to achieve the annual treatment target of approximately 250,000 acres. With the increase in treatment acreage, the VMT generated in comparison to existing conditions would increase. The VMT would vary based on the location, size of the area being treated, the type of treatment being implemented, and the duration of the vegetation treatments. Because the specific locations of CalVTP vegetation treatments, the origin of workers and equipment, and number of crew and vehicles are variable from year to year, VMT generated under the CalVTP cannot be meaningfully quantified. Implementation of the proposed program would increase VMT above current conditions, because the greater proposed scale of vegetation treatments and associated trips. Individual vegetation treatment projects under the CalVTP are likely to generate fewer than 110 trips per day which is generally assumed to cause a less-than-significant transportation impact for specific later activities, as described in the Technical Advisory on Evaluating Transportation Impacts (OPR 2018). Many individual treatment projects would contribute to the overall annual program, so a net increase in VMT would occur for annual implementation of the CalVTP.

A primary objective of the CalVTP is to reduce wildfire risk. Wildfires require an immediate response from emergency personnel and mobilization of equipment. During wildfires that exceed the containment capacity of local resources, personnel from throughout the state (and occasionally nationally and internationally) are dispatched to assist in firefighting. The reduction of VMT is not a primary consideration during wildfires. Rather, protecting human life and property is prioritized. The movement of personnel associated with containment of wildfires results in a surge of VMT associated with vehicle travel. While implementation of treatment activities under the CalVTP cannot ensure that wildfires would not occur due to known or unforeseen factors (e.g., future climate conditions, availability of resources), implementation of the proposed CalVTP is designed to reduce wildfire occurrence and severity and the surge in VMT resulting from increased trip generation and trip lengths associated with response to such events.

When VMT attributable to wildfire response is considered with the VMT from vegetation treatments, it is conceivable that implementation of the proposed program could result in a net decrease in total VMT. This could compensate for the comparatively smaller increase in VMT attributable to increased scale of vegetation treatments, but predicting this outcome with certainty is not feasible.

In summary, due to an intended decrease in the occurrence and severity of wildfires following achievement of the proposed treatment acreage targets under the CalVTP, implementation of the CalVTP could result in a net reduction in VMT in the long term because wildfire response travel could be reduced, resulting in a less-than-significant impact. However, because of the increase in treatment acreage under the CalVTP, VMT associated with treatment activities would increase in comparison to the existing condition. Additionally, there is uncertainty in predicting future wildfire occurrence and intensity; and thus, recognizing uncertainty in future predictions, to meet CEQA’s mandate of good faith disclosure (*California Native Plant Society v. City of Santa Cruz, supra,* 177 Cal.App.4th at p. 979) and to not risk understating potential future impacts in light of the uncertainties, this PEIR classifies the VMT impact as **potentially significant**.

##### Mitigation Measures

Vehicular travel associated with implementation of the CalVTP would primarily originate from the CAL FIRE operational unit, or applicable local operational unit of other project proponent, nearest to where individual vegetation treatments would occur. Mitigation Measure AQ-1 would encourage workers to carpool to work sites, and/or use public transportation for their commutes which could result in the reduction of vehicular trips associated with vegetation treatments; and thus, could potentially reduce VMT. However, due to the rural nature of the majority of the treatable landscape and the required equipment and number of employees (i.e., the primary trip-generators associated with vegetation treatments) associated with each vegetation treatment project, it would not be feasible to reduce VMT generated under the CalVTP beyond encouraging worker to carpool and/or use public transportation (see Mitigation Measure AQ-1 in Section 3.4, “Air Quality”), and the current practice of employing local crews and equipment as available and feasible. Therefore, there is no feasible mitigation available.

###### Significance after Mitigation

As stated above under the pre-mitigation significance determination, to meet CEQA’s mandate of good faith disclosure and to not risk understating potential future impacts in light of uncertainties related to wildfire, this PEIR classifies this VMT impact as **potentially significant and unavoidable**, even though the probability of a net VMT reduction could be reasonably expected to occur in the long term with the intended reduction in wildfire occurrence and severity, and individual vegetation treatments would likely be less than significant pursuant to the thresholds identified in OPR’s Technical Advisory on Evaluating Transportation Impacts. Even though the intended outcome would be less than significant, the “potentially significant and unavoidable” determination is necessary under CEQA to disclose in good faith the potential effects related to VMT generated by the program as a whole.

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