

<i>CAL FIRE policy requires all vegetation management program treatments utilizing prescribed fire to comply with Air Quality Regulations for their air district. A Smoke Management Plan will be submitted and permit will be acquired from the Monterey Bay Air Resources District prior to burning activities.</i>			
SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. This SPR applies only to prescribed burning treatment activities and all treatment types.	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<i>A burn plan has been prepared and included.</i>			
SPR AQ-4 Minimize Dust: This SPR applies to all treatment activities and treatment types.	Yes	<u>CAL FIRE</u> During	<u>CAL FIRE</u>
<i>All listed measures within SPR AQ-4 will be implemented to minimize dust during treatments (see Attachment-A List of Standard Project Requirements (SPRs) and Mitigations Measures (MMs)).</i>			
SPR AQ-5 Avoid Naturally Occurring Asbestos: This SPR applies to all treatment activities and treatment types.	No	N/A	N/A
<i>There no naturally occurring asbestos mapped in the treatment area.</i>			
SPR AQ-6: Prescribed Burn Safety Procedures: Prescribed burns will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP).	Yes	<u>CAL FIRE</u> Prior-During	<u>CAL FIRE</u>
<i>This project has been planned and will be managed by CAL FIRE. CAL FIRE will be conducting all burning and will follow all policy and safety procedures required for conducting burning by CAL FIRE. An IAP will be created for broadcast burning. There has been a burn plan created which identifies the specific burn prescription; weather limitations and monitoring; posting notifications; and other special instructions. Prior to ignition, crews will be given an onsite briefing which will include a safety briefing, specific burn instructions, weather limitations, communication plan, medical plan, and other special instructions.</i>			
MM AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment.	Yes	<u>CAL FIRE</u> Prior-During	<u>CAL FIRE</u>
<i>The components of mitigation measure AQ-1 that have been determined by CAL FIRE to be feasible and would be implemented to reduce emissions include use of gasoline-powered equipment and encouraging carpooling to the project site. Equipment meeting Tier 4 emission standards, Best Available Control Technology for emission reductions of NO_x and PM on equipment and the use of renewable fuel would be implemented to the extent feasible.</i>			

EC-4: ARCHEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources	Impact CUL-1, 3.5	LTS	<u>SPR CUL-1, 7, 8</u>	No	N/A	<input checked="" type="checkbox"/>
<i>No built historic resources have been located in the project area.</i>						
Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archeological Resources or Subsurface Historical Resources	Impact CUL-2, 3.5	PS	<u>SPR CUL-2, 3, 4, 5, 8</u> <u>MM CUL-2</u>	Yes	LTSM	<input checked="" type="checkbox"/>
<i>One cultural resource is located in the project area. This site will be avoided from project activities; specific avoidance measures for this site are listed in a confidential Archeological Survey Report. Additionally, vegetation treatment could include mechanical treatments using heaving equipment. The potential for these treatment activities to result in inadvertent discovery of unique archaeological resources or subsurface historical resources was examined in the PEIR. Treatment activities and extent of ground disturbance of the treatment project are consistent with those analyzed in the PEIR and Mitigation Measure CUL-2 would apply to this treatment.</i>						
Impact CUL-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource	Impact CUL-3, 3.5	LTS	<u>SPR CUL-1, 2, 3, 5, 6, 8</u>	Yes	LTS	<input checked="" type="checkbox"/>
<i>Project treatments would include manual treatment, prescribed burning, and mechanical treatment. The potential for adverse effects to tribal cultural resources during implementation of the treatments is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and extent of ground disturbance are consistent with those analyzed in the PEIR. Native American contacts in Santa Cruz County were contacted on June 1 and 8, 2020. A response was received from one tribe and a site visit was made with tribal representatives to view the project area, a cultural resource site and the avoidance measures proposed for the site.</i>						
Impact CUL-4: Disturb Human Remains	Impact CUL-4, 3.5	LTS	N/A	Yes	LTS	<input checked="" type="checkbox"/>
<i>Vegetation treatment could include mechanical treatments using heavy equipment. The potential for uncovering human remains during implementation of the treatment project is within the scope of the activities and impacts addressed in the PEIR. Should human remains be discovered the project would comply with California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097.</i>						
Other Impacts to Archeological, Historical, and Tribal Cultural Resources: Would the project result in other impacts to archeological, historical, or tribal cultural resources that are not evaluated in the CalVTP PEIR?				No	N/A	<input checked="" type="checkbox"/>

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	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/Monitoring Entity
<p>SPR CUL-1 Conduct Record Search: For treatments led by CAL FIRE, an archaeological and historical resource record search will be conducted per the “Archaeological Review Procedures for CAL FIRE Projects” (current edition dated 2010). This SPR applies to all treatment activities and treatment types.</p>	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<p><i>An Archaeological Records Check Request for a CAL FIRE Project was completed by Andrew Hubbs and sent to the Northwest Information Center on April 23, 2020. Records Search results were received from the information center.</i></p>			
<p>SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List, which may be obtained from the CAL FIRE website, as appropriate. This SPR applies to all treatment activities and treatment types.</p>	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<p><i>Letters identifying the location, treatment types, purpose and proposed protection measures of a known site for the project were sent to the Native American contacts from the “California Department of Forestry and Fire Protection (CAL FIRE) Native American Contact list, revised January 1, 2020, Santa Cruz County” list. The letters requested any information concerning the location of any cultural resources that may exist within the project area.</i></p> <p><i>One response was received from a tribe and a site visit was made with tribal representatives. Full archaeological survey and reporting has been completed for the project.</i></p>			
<p>SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. This SPR applies to all treatment activities and treatment types</p>	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<p><i>Pre-field research included review of site records from the Information Center report, reference materials and conversations with the landowners.</i></p>			
<p>SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically trained resource professional or qualified archaeologist to conduct a site-specific survey of the treatment area. This SPR applies to all treatment activities and treatment types.</p>	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<p><i>A Confidential Archaeological Survey Report was prepared by Andrew Hubbs and reviewed by Benjamin Harris (CAL FIRE Northern Region Associate State Archaeologist). Refer to the attached Confidential Archaeological Survey Report for the discussion on specific cultural resources and a list of potential effects and proposed protection measures.</i></p>			

<p>SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. This SPR applies to all treatment activities and treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> During</p>	<p><u>CAL FIRE</u></p>
<p>SPR CUL-6 Treatment of Tribal Cultural Resources: If a tribal cultural resource is identified within a treatment area, and cannot be avoided, the project proponent in consultation the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. This SPR applies to all treatment activities and treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> During</p>	<p><u>CAL FIRE</u></p>
<p>SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. This SPR applies to all treatment activities and treatment types.</p>	<p>No</p>	<p>N/A</p>	<p><u>N/A</u></p>
<p><i>No built historic resources were identified in the project area from the records search and no built historic resources were located during the survey.</i></p>			
<p>SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. This SPR applies to all treatment activities and treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p>MM CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified professional archaeologist or CAL FIRE archeological trained Registered Professional Forester will assess the significance of the find.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> During</p>	<p><u>CAL FIRE</u></p>

EC-5: BIOLOGICAL RESOURCES

	<p>PEIR specific</p>	<p>Project specific</p>
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	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	Impact BIO-1, 3.6	PS	<u>SPR BIO-1, 2, 7, 9</u> <u>SPR AQ-3, 4,</u> <u>SPR GEO-1, 3, 4, 5, 7</u> <u>SPR HYD-5</u> <u>MM BIO-1a, 1b, 1c</u>	Yes	LTSM	<input checked="" type="checkbox"/>
<p><i>Project treatments (prescribed burning, manual treatment, mechanical treatment) could result in direct or indirect adverse effects to special-status plant species because suitable habitat for some species is present. The potential for adverse effects to special-status plants is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.</i></p> <p><i>There are no known species-status plant species in the project area, however habitat is present and if species are found Mitigation Measure BIO-1b, for prescribed burning, manual treatment, and mechanical treatment will be implemented. For prescribed burning, residual effects of the treatment would not be significant under CEQA with implementation of Mitigation Measure BIO-1b and relevant SPRs because implementation of the treatment would maintain habitat function of the special-status plant habitat and because the loss of a few individuals would not substantially reduce the number or restrict the range of the species. However, if a large population of a special-status plant species is identified, the plants may need to be avoided during prescribed burning by establishing a no-disturbance buffer of 50 feet (Mitigation Measure BIO-1b) in order for residual impacts to remain less than significant under CEQA, consistent with the determination in the PEIR.</i></p>						
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	Impact BIO-2, 3.6	PS / SU	<u>SPR BIO-1, 2, 3, 4, 5, 8, 10, 11</u> <u>SPR HYD-1, 3, 4, 5</u> <u>SPR HAZ-5, 6</u> <u>MM BIO-2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 3b, 3c, 4</u>	Yes	LTSM	<input checked="" type="checkbox"/>
<p><i>Project treatment (prescribed burning, manual treatment, mechanical treatment) could result in direct or indirect adverse effects to special-status wildlife species, because suitable habitat for some species is present in the project area. The potential for adverse effects to special-</i></p>						

status wildlife is within the scope of the activities and impacts addressed in the PEIR, because the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.

With implementation of Mitigation Measure BIO-2a and Mitigation Measure BIO-2b, the residual effects of the treatments would be less than significant under CEQA because implementation of the treatment will maintain habitat function of the special-status wildlife species' habitat. Any unintentional disturbance or loss of special-status species would not substantially reduce the number or restrict the range of the species. This is consistent with the determination in the PEIR.

<p>Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function</p>	<p>Impact BIO-3, 3.6</p>	<p>PS</p>	<p>SPR BIO-1, 2, 3, 4, 5, 6, 8, 9 SPR HYD-4, 5 MM BIO-3a, 3b, 3c</p>	<p>Yes</p>	<p>LTS</p>	<p><input checked="" type="checkbox"/></p>
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Project treatments (prescribed burning, manual treatment, mechanical treatment,) could result in direct or indirect adverse effects to sensitive natural communities such as oak woodlands. The potential for adverse effects to sensitive habitats is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.

Oak woodlands occur in the project area and will be subject to understory broadcast burning and understory mechanical and manual pretreatment. No large diameter (>10" DHB) oak trees will be removed as part of this project. No reduction of extent of oak woodland or loss of large oak trees from broadcast burning is expected to occur. Accumulations of heavy fuel will be removed beneath oak trees as appropriate to prevent fire and heat damage to overstory trees. There is no recorded fire history in this area, and the oak woodland which occurs here is well outside of its historical fire regime (Medium, 30 – 100 years). The project is intended to reintroduce fire at a low intensity to minimize damage to overstory oaks and to restore the fire regime to a state that is closer to its historical range. No significant impacts are expected to oak woodlands as a result of the project.

The upper reaches of several small ephemeral (Class III) watercourses occur in the project area that flow water for short periods during and immediately following significant rain. No riparian vegetation is located along these watercourses; no perennial watercourses/riparian vegetation occurs in the project area. Though no attributes associated with riparian habitat are apparent with these small watercourses, if any were to be classified as riparian habitat or a sensitive natural community, no loss or degradation or loss of habitat function will occur with the proposed project activities for the following reasons:

- The use of low intensity broadcast burning where Class III watercourses are present is consistent with the natural fire regime, which generally varied from low to moderate intensity, depending on the fuel type.*
- No treatment other than low intensity broadcast burning and potential limited pretreatment of fuels (brush crushing through chaining) to help facilitate burning will occur within 50 feet of Class III (ELZs), including no use of tractors, except at established existing road crossings.*
- Though limited chaining may occur within 50 feet of Class III watercourses, the amount and potential for soil disturbance is much less than that of tractor use (high blading, for example). Chaining tends to roll over top of vegetation, uprooting a small percentage,*

but generally crushing shrubs, causing them to flatten or break. When using a ball attached to the chain, the path of travel from the ball can cause soil disturbance for short stretches when the ball drags rather than rolls. Any such soil disturbances that occur in the ELZs (uprooted vegetation or ball dragging) are anticipated to be minimal, and unintentional soil deposition into the channel will be removed and stabilized prior to rain events.

Additionally, CDFW and Central Coast WQCB were consulted regarding the project (refer to attached correspondence). CDFW had no concerns with the project and WQ had several recommendations; some of which were already included in the project design, or have since been incorporated when appropriate and feasible, and are as follows:

- Dozer-work shall be limited to slopes less than ~30% in steepness (35% in actuality). Dozers shall be operated such that the dozer blade or rake does not dig into the soil profile. Where cleat tracks leave visible impressions on the soil, track indentations shall be perpendicular to the slope direction.*
- Construction or reconstruction of fire control lines shall be limited to topographic ridge divide locations.*
- Fire control lines (fuel breaks) shall be limited in width to 12 feet.*
- Prevention and cleanup of heavy equipment fuel and lubricant spills shall be prioritized.*
- Pile burn locations shall be rotated*

Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	Impact BIO-4, 3.6	PS	SPR BIO-1 SPR HYD-1, 3, 4, MM BIO- 4	No	N/A	<input checked="" type="checkbox"/>
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There are no State or Federally Protected Wetlands as defined in the EIR in the project area. Wetland areas downslope and downstream of the project will not be impacted by project activities through implementation of SPR HYD-4 and project design features such as low to moderate intensity burning, sufficient buffers between the project area and wetlands, post-burn residual vegetation and erosion control methods on containment lines.

Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	Impact BIO-5, 3.6	PS	SPR BIO-1, 4, 5, 10, 11 SPR HYD-1, 4 MM BIO- 5	Yes	LTS	<input checked="" type="checkbox"/>
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Project treatment (prescribed burning, manual treatment, mechanical treatment) could result in direct or indirect adverse effects to wildlife movement corridors and nurseries because suitable habitat is present in the project area. The potential for treatment activities to result in adverse effects to wildlife movement corridors and nurseries was examined in the PEIR.

No known wildlife nursery sites or indications of nursery sites, such as deer fawning habitat or potential rookery trees with whitewash, were identified. The potential for adverse effects to wildlife movement corridors and nurseries is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.

Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	Impact BIO-6, 3.6	LTS	<u>SPR BIO-</u> 1, 2, 3, 4, 5, 12	Yes	LTS	<input checked="" type="checkbox"/>
<i>Project treatment (prescribed burning, mechanical treatment, manual treatment) could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife, including nesting birds, because suitable habitat is present in the project area. The potential for adverse effects to common wildlife, including nesting birds, is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Nesting bird surveys per SPR BIO-12 will be conducted between March 1st to August 31st where feasible, if operations are proposed during that time period.</i>						
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	Impact BIO-7, 3.6	No Impact	<u>SPR AD- 3</u>	No	N/A	<input checked="" type="checkbox"/>
<i>The potential for treatment activities to result in conflict with local policies or ordinances was examined in the PEIR. Vegetation treatment projects implemented under the CalVTP that are subject to local policies or ordinances would be required to comply with any applicable county, city, or other local policies, ordinances, and permitting procedures related to protection of biological resources, per SPR AD-3. Consistent with the determination in the PEIR, the proposed project would result in no impact.</i>						
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	Impact BIO-8, 3.6	No Impact	N/A	No	N/A	<input checked="" type="checkbox"/>
<i>Implementation of the proposed vegetation treatment and treatment maintenance would not result in conflict with adopted habitat conservation plans (HCP) or natural community conservation plans (NCCP), because the treatment site is not within the plan area of any adopted HCP or NCCP.</i>						
Other Impacts to Biological Resources: Would the project result in other impacts to biological resources that are not evaluated in the CalVTP PEIR?				No	N/A	<input checked="" type="checkbox"/>

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR BIO-1: Review and Survey Project-Specific Biological Resources. 1. Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided.	Yes Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>

<p>2. Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided.</p> <p>This SPR applies to all treatment activities and treatment types.</p>	No		
<p><i>A CNDDDB 9 quad search was conducted on June 2nd 2020, the project area is within the 7.5' USGS Mt. Madonna quadrangle map (Unsurveyed Rancho Salsipuedes, T10-11S, R2W, MDBM). Review of Appendix BIO-3, Table 1a and Table 1b, in the PEIR (Volume II) for special-status plants and wildlife that could occur in the Central California Coast ecoregion was reviewed. Complete lists of species with potential to occur in the treatment site are included. Additionally, CAL FIRE consulted with CDFW staff on July 2nd 2020 and recommendation are incorporated into the project design (see Section 1, Wildlife/Fisheries Habitat and Sensitivity to Project Activities).</i></p> <p><i>Based on this query and local knowledge of the area, biological scoping was conducted for species with habitat potential in the project area. Although the biological scoping indicates numerous special status species have habitat potential in the project area and special status species are present, analysis of project impacts concluded no species would be adversely affected. The tables attached at the end of EC-5 summarize the scoping and subsequent impact analysis for each species from the 9-quad query.</i></p>			
<p>SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. This SPR applies to all treatment activities and treatment types.</p>	Yes	<u>CAL FIRE</u> Prior-During	<u>CAL FIRE</u>
<p>SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided. This SPR applies to all treatment activities and treatment types.</p>	No	N/A	N/A
<p><i>SPR BIO-1 found that suitable habitat is present but can clearly be avoided through project design.</i></p>			
<p>SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions. This SPR applies to all treatment activities and treatment types.</p>	No	N/A	N/A
<p><i>No Class I or Class II watercourses occur in the project area. Class III watercourses do occur sporadically, which flow temporarily following significant rain events and do not support riparian vegetation or aquatic organisms. SPR-BIO-4 is not applicable because riparian vegetation is not present, trees are not proposed to be felled near or into streams, shading has no effect due to short periods of flow immediately following significant rain, little if any ground disturbance will occur, no herbicide application will take place, and CDFW has no concerns with the project as proposed. WQ had several recommendations (refer to attached correspondence); some of which were already included in the project design, or have since been incorporated when appropriate and feasible, and are as follows:</i></p> <ul style="list-style-type: none"> <i>• Dozer-work shall be limited to slopes less than ~30% in steepness (35% in actuality). Dozers shall be operated such that the dozer blade or rake does not dig into the soil profile. Where cleat tracks leave visible impressions on the soil, track indentations shall be perpendicular to the slope direction.</i> <i>• Construction or reconstruction of fire control lines shall be limited to topographic ridge divide locations.</i> <i>• Fire control lines (fuel breaks) shall be limited in width to 12 feet.</i> 			

<ul style="list-style-type: none"> • <i>Prevention and cleanup of heavy equipment fuel and lubricant spills shall be prioritized.</i> • <i>Pile burn locations shall be rotated</i> 			
<p>SPR BIO-5: Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub. The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. These SPR requirements apply to all treatment activities and all treatment types. Additional measures will be applied to ecological restoration treatment types</p>	Yes	<u>CAL FIRE</u> During	<u>CAL FIRE</u>
<p><i>The project area contains areas of coastal scrub, primarily dominated by coyote brush. Aerial photographs from 1935 indicate significant conversion of grassland to coyote brush due to the absence of periodic fire. The treatment proposed would include broadcast burning of coyote brush dominated coastal scrub areas. Some areas of coastal scrub will be pre-treated by crushing. A brush rake may be utilized in limited areas of coastal scrub to reduce heavy fuel loads near trees. While some mortality of coastal scrub species is expected, unfortunately significant regeneration from root stock and the seed bank is also expected to occur immediately following broadcast burning. Therefore, the project will not result in widespread type conversion from coastal scrub to non-native annual grassland, but at the very least it is hoped the continued conversion of grassland to coyote brush into adjacent grasslands will be slowed or stopped as a result of the project.</i></p>			
<p>SPR BIO-6: Prevent Spread of Plant Pathogens. When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., lone chaparral, blue oak woodland), the project proponent will implement best management practices to prevent the spread of <i>Phytophthora</i> and other plant pathogens (e.g., pitch canker (<i>Fusarium</i>), goldspotted oak borer, shot hole borer, bark beetle). This SPR applies to all treatment activities and treatment types.</p>	Yes	<u>CAL FIRE</u> Prior-During	<u>CAL FIRE</u>
<p><i>Personnel utilized on this project will be advised of the requirement that equipment coming to or leaving the project area will need to be washed in accordance with SPR-AQ 6. Sudden Oak Death (<i>Phytophthora ramorum</i>) is known to occur in the area, however, none has been seen in the project site. It is most likely that personnel and equipment assigned to work on the project will be from the local area and the concern of pathogens entering from others areas will be low. However, because Fire Crews, Fuels Crews and associated equipment (chainsaws, hand tools, etc.) and vehicles could have been used in other portions of the state either on fires or other fuel treatment projects the crews will be advised to completely clean their equipment, tools and vehicles before arriving on the project site.</i></p>			
<p>SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." This SPR applies to all treatment activities and treatment types.</p>	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>

On May 23rd 2020, CAL FIRE Forester Andrew Hubbs and Environmental Scientist Matthew Mosher conducted a site visit to assess habitat for potential species identified during project scoping. Based on this site visit Matthew prepared a Habitat Analysis/Biological Scoping Table (End of EC-5). A number of special-status plant species were identified during project scoping. All but four of these species were determined to lack suitable habitat after reviewing their specific habitat requirements. The following four Rare Plant Rank List 1 species may have suitable habitat in the project area but, if present, will not be significantly impacted or will be avoided entirely:

- Arctostaphylos andersonii (Anderson’s manzanita) – No Arctostaphylos species presence was observed in the project area, and none are expected to occur. If any individuals are observed, they will be flagged for avoidance during fire line construction.
- Malacothamnus arcuatus (arcuate bush-mallow) – Genus is considered a fire follower which is in decline due to fire suppression and is expected to benefit from project activities if it occurs. Currently accepted taxonomy considers this species to be a synonym of the common Malacothamnus fasciculatus (Baldwin et al 2012), therefore impacts would not be considered significant.
- Monolopia gracilens (woodland woollythreads) – Occurs in Serpentinic areas in grasslands or openings in chaparral or oak woodlands. Unlikely to occur in the project area due to lack of serpentine soils and dense stands of brush and tree canopy, however limited areas of microhabitat may occur. While broadcast burning will benefit this species through reduction in encroaching woody vegetation, nutrient cycling, and increased sunlight, control line construction could potentially impact this species. A qualified RPF or botanist will determine if potential habitat occurs in areas where control line is proposed. If any potential habitat is present, pre-construction surveys will be conducted, and any individuals found will be avoided.
- Penstemon rattanii var. kleei (Santa Cruz Mountains beardtongue – Openings in conifer forest or oak woodland, in recently burned or disturbed chaparral, or along roadcuts. This is a disturbance dependent species which is outcompeted in late-seral forest and chaparral. It has been observed to reappear following mechanical fuel treatments in the project region (ESF 2020, M. Mosher personal observation). While broadcast burning will benefit this species through reduction in encroaching woody vegetation, nutrient cycling, and increased sunlight, control line construction could potentially impact this species. A qualified RPF or botanist will determine if potential habitat occurs in areas where control line is proposed. If any potential habitat is present, pre-construction surveys will be conducted, and any individuals found will be avoided.

SPR BIO-8: Identify and Minimize Impacts in Coastal Zone ESHAs. This SPR applies to all treatment activities and only the ecosystem restoration treatment type.	No	N/A	N/A
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The project area is outside of the Coastal Zone.

SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. This SPR applies to all treatment activities and treatment types.	Yes	<u>CAL FIRE</u> Prior-During	<u>CAL FIRE</u>
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Personnel utilized on this project will be advised of the need to be sure equipment coming to or leaving the project area will need to be washed. It is most likely that personnel and equipment assigned to work on the project will be from the local area and the concern of invasive weeds entering from others areas will be low. However, because Fire Crews, Fuels Crews and associated equipment (chainsaws, hand tools, etc.) and vehicles could have been used in other portions of the state either on fires or other fuel treatment projects the crews will be advised to completely clean their equipment, tools and vehicles before arriving on the project site.

<p>SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. This SPR applies to all treatment activities and treatment types.</p>	Yes	<p><u>CAL FIRE</u> Prior</p>	N/A
<p><i>On May 23rd 2020, CAL FIRE Forester Andrew Hubbs and Environmental Scientist Matthew Mosher conducted a site visit to assess habitat for potential species identified during project scoping. Based on this site visit Matthew prepared a Habitat Analysis/Biological Scoping Table (End of EC-5). A number of special-status animal species were identified during project scoping. All but four of these species were determined to lack suitable habitat after reviewing their specific habitat requirements or were determined to not be significantly impacted by project activities. The following four special-status animal species may have suitable habitat in the project area but, if present, will be surveyed for and avoided entirely:</i></p> <ul style="list-style-type: none"> • <i><u>Accipiter cooperii</u> (Cooper’s hawk) – Medium sized raptor that nests and forages in a wide variety of forested areas. Trees will be visually inspected for stick nests in and immediately adjacent to work areas during nesting season where feasible and no significant impacts to foraging areas will occur.</i> • <i><u>Ammodramus savannarum</u> (grasshopper sparrow) – Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting. Trees will be visually inspected for nests in and immediately adjacent to work areas during nesting season (March 15 – August 31) where feasible and no significant impacts to foraging areas will occur.</i> • <i><u>Aquila chrysaetos</u> (golden eagle) – Occurs in a variety of habitats, nesting on cliff-walled canyons and large trees in open areas. The project will not remove any trees larger than 10” DBH and large trees near the project area will be inspected for nests during nesting season (February 1 – August 1) where feasible. No impacts to nesting habitat will occur, and no significant impacts to foraging areas will occur.</i> • <i><u>Neotoma fuscipes annectens</u> (San Francisco dusky-footed woodrat) – Forest habitats of moderate canopy & moderate to dense understory. Based on CNDDDB data, San Francisco dusky-footed woodrats do not occur in the southern Santa Cruz Mountains. However, if nests do occur, none will be intentionally damaged or destroyed by project activities; fire control lines will be modified to avoid nests and associated screen vegetation however, nests in interior burn areas cannot be avoided by fire, if present.</i> 			
<p>SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). This SPR applies only to prescribed herbivory and all treatment types.</p>	No	N/A	N/A

<p>SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP PEIR. The active nesting season or peak nesting season will be defined by the qualified RPF or biologist. This SPR applies to all treatment activities and treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p><i>If operations are proposed between March 1 (February 1 for the golden eagle) and August 31:</i></p> <ul style="list-style-type: none"> <i>An RPF or qualified biologist will conduct a cursory/visual search of the project area for nesting birds prior to operations where feasible.</i> <i>If an active nest is identified activates within 100 feet of the nest will stop and CDFW contacted to develop an avoidance strategy.</i> <i>See entire SPR for complete avoidance strategies identified in EIR (Establish Buffer, Modify Treatment, Defer Treatment, Monitor Active Raptor Nest During Treatment, Retention of Raptor Nest Trees).</i> <p><i>Mitigation Measure MM BIO-2b of the EIR includes the same protection measures necessary for the protection of nesting birds.</i></p> <p><i>No impacts are anticipated.</i></p>			
<p>MM BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).</p>	<p>No</p>	<p><u>N/A</u></p>	<p><u>N/A</u></p>
<p><i>No listed plant species were determined to have the potential to occur in the project area (End of EC-5).</i></p>			
<p>MM BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement measures to avoid loss of individuals and maintain habitat function of occupied habitat.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p><i>Control line construction will avoid populations of special-status plant species. Broadcast burning is expected to improve habitat for all four-species identified as potentially occurring in the project area.</i></p>			

<p>MM BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants</p> <p>If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. If the special-status plant taxa are listed under ESA or CESA, the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment.</p> <p>Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.</p>	<p>No</p>	<p>N/A</p>	<p>N/A</p>
<p><i>CAL FIRE will avoid significant impacts to special-status plants, and thus compensatory mitigation will not be required.</i></p>			
<p>MM BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities)</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p><i>The only listed/fully protected species with potential to occur in the project area is golden eagle. As discussed under SPR BIO 10, this species will be surveyed for and avoided.</i></p>			
<p>MM BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species.</p> <p>The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p><i>As discussed under SPR BIO-10, all special-status wildlife species with the potential to be impacted by project activities will be surveyed for and avoided, with the possible exception of San Francisco dusky-footed woodrats (if present). Stick houses will be avoided by fire control lines, however any located within interior portions of burn units cannot be protected from fire. Mortality or injury of this species may occur, but per MM BIO-2b, burning will not occur in known woodrat locations during peak breeding season in mid-spring and habitat function will not be impacted by this project.</i></p>			

<p>MM BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities) If the provisions of Mitigation Measure BIO-2a, BIO-2b, BIO-2d, BIO-2e, BIO-2f, or BIO-2g cannot be implemented and the project proponent determines that additional mitigation is necessary to reduce significant impacts, the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment.</p> <p>Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit), if these requirements are equally or more effective than the mitigation identified above.</p>	No	N/A	N/A
<p><i>Per MM BIO-2c, this mitigation is not needed since the provisions of MM BIO-2a, BIO-2b, and BIO-2g can be implemented (BIO-2d, BIO-2e, BIO-2f are not applicable since the species referenced in these MMs do not have potential to occur in the project area).</i></p>			
<p>MM BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)</p>	No	N/A	N/A
<p><i>The project area is not within the range of the Valley Elderberry Longhorn Beetle.</i></p>			
<p>MM BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities) The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.</p>	No	N/A	N/A
<p><i>No special-status butterflies have potential to occur in the project area.</i></p>			
<p>MM BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities)</p>	No	N/A	N/A
<p><i>No special-status beetles, flies, grasshoppers or snails have potential to occur in the project area.</i></p>			
<p>MM BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities) The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.</p>	Yes	<u>CAL FIRE</u> During-Post	<u>CAL FIRE</u>

<p><i>Appendix BIO-3 indicates that Western Bumble Bee habitat may exist in the ecoregion, however the closest CNDDDB record for western bumble bee (<i>Bombus occidentalis</i>) is over 5 miles from the project area, and the closest record for crotch bumble bee (<i>Bombus crotchii</i>) is over 8 miles from the project area. Additionally, the project area is dominated by grasslands containing predominately non-native annual grasses with few floral resources and coastal scrub dominated by coyote brush with few floral resources. Therefore, it is unlikely that either bumble bee species occurs in the project area expect sporadically, and never in large numbers. In the unlikely event the bee is utilizing portions of the project area, no significant impacts are anticipated because treatment areas will be divided into several units that will receive treatment in separate years. Additionally, reintroduction of fire to the landscape has the potential to stimulate latent seeds in the soil and produce a flush of native floral resources following project implementation, both in the non-native annual grass and in areas currently dominated by coyote brush. Thus, the project is expected to be beneficial to special-status bumble bees.</i></p>			
<p>MM BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory)</p>	No	N/A	N/A
<p><i>Prescribed herbivory is not proposed for this project.</i></p>			
<p>MM BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3: The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.</p>	Yes	Prior-During	CAL FIRE
<p><i>As discussed in Impact BIO-3, Oak woodlands occur in the project area and will be subject to understory broadcast burning and understory mechanical and manual pretreatment. No large diameter (>10" DHB) oak trees will be removed as part of this project. No reduction of extent of oak woodland or loss of large oak trees from broadcast burning is expected to occur, as the large oak trees present in the project area are exceptionally fire resistant. There is no recorded fire history in this area, and the oak woodland which occurs here is well outside of its historical fire regime (Medium, 30 – 100 years). The project is intended to reintroduce fire at a low intensity to minimize damage to overstory oaks and to restore the fire regime to a state that is closer to its historical range.</i></p>			
<p>MM BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands. If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects.</p>	No	N/A	N/A
<p><i>As discussed above in Impact BIO-3, impacts to oak woodland are considered less than significant and the project intends to restore the historic fire regime to improve the habitat functionality of the oak woodlands present; thus no compensatory mitigation will be required.</i></p>			

<p>MM BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.</p>	No	N/A	N/A
<p><i>Project implementation will not result in loss of riparian habitat as only small Class III watercourses are present that flow for short periods following significant rain. Any classification of riparian habitat in the project area would be due to interpretation of definition and not in terms of habitat function as no riparian vegetation is present, no hydrophytic plants and hydric soils are present, no near surface ground water is present and no surface flow occurs for durations long enough to support any organisms associated with riparian habitat. Furthermore, MM BIO-3c indicates this Mitigation Measure should be implemented if impacts to riparian habitat remain significant after implementation of SPR BIO-4, which they do not.</i></p>			
<p>MM BIO-4: Avoid State and Federally Protected Wetlands</p>	No	N/A	N/A
<p><i>No wetlands occur in the project area.</i></p>			
<p>MM BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites</p>	No	N/A	N/A
<p><i>No nursery habitat is known to occur in the project area.</i></p>			

Refer to Attachment B, for guidance on the project-specific review and survey procedures for biological resources.

Habitat Analysis / Biological Scoping Table: Estrada Ranch VTP

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
Accipiter cooperii	Cooper's hawk	None	None	N/A	Yes	Medium sized raptor that nests and forages in a wide variety of forested areas. Trees will be visually inspected for stick nests in and immediately adjacent to work areas during nesting season and no significant impacts to foraging areas will occur.
Agelaius tricolor	tricolored blackbird	None	Threatened	N/A	No	Not known from project vicinity. Requires open water with protected nesting substrate, which is not present in the project area.
Ambystoma californiense	California tiger salamander	Threatened	Threatened	N/A	No	Breeds in ephemeral pools and spends most of the year underground in small mammal borrows. No records exist in the Santa Cruz Mountains, and no suitable breeding pools are present in the project area.
Ambystoma macrodactylum croceum	Santa Cruz long-toed salamander	Endangered	Endangered	N/A	No	Occurs in wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey County. Project area is well above sea level.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
<i>Ammodramus savannarum</i>	grasshopper sparrow	None	None	N/A	Yes	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting. Trees will be visually inspected for nests in and immediately adjacent to work areas during nesting season and no significant impacts to foraging areas will occur.
<i>Aneides niger</i>	Santa Cruz black salamander	None	None	N/A	No	Occurs in mixed deciduous woodland, coniferous forests, coastal grasslands. Found under rocks near streams, in talus, under damp logs, and other objects. Species may occur near the project area in the vicinity of Hazel Dell Creek; however, no work will occur within 200 feet of the creek.
<i>Anniella pulchra</i>	northern California legless lizard	None	None	N/A	No	Occurs in chaparral, coastal dunes, and coastal scrub in sandy or loose loamy soils under sparse vegetation. Not known to occur in the Santa Cruz Mountains. No impacts are anticipated.
<i>Antrozous pallidus</i>	pallid bat	None	None	N/A	Yes	Pallid bats may forage in a broad range of habitats, including those present in the project area. Suitable roosting habitat, in the form of tree cavities, caves, or buildings, may exist within the study area. However, no large (>10" DBH) trees will be removed. Therefore, no impacts will occur to pallid bat roosting habitat, and any disturbance will be transitory in nature and will not be significant.
<i>Aquila chrysaetos</i>	golden eagle	None	None	N/A	Yes	Occurs in a variety of habitats, nesting on cliff-walled canyons and large trees in open areas. The project will not remove any trees larger than 10" DBH and large trees near the project area will be inspected for nests during nesting season. No impacts to nesting habitat will occur, and no significant impacts to foraging areas will occur.
<i>Athene cunicularia</i>	burrowing owl	None	None	N/A	No	Occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Breeding populations have been considered extirpated from Santa Cruz County for decades (DeSante and Ruhlen 1995). No CNDDDB records occur within 5 miles of the project vicinity.
<i>Bombus crotchii</i>	Crotch bumble bee	None	Candidate Endangered	N/A	Yes	Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> . In the project region, these species are generally restricted to grassland habitat. Temporary impacts to foraging resources may occur immediately following the broadcast burn, however many of the species in this genus respond positively to fire and are expected to increase in abundance following project implementation. No impacts are anticipated.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
<i>Bombus occidentalis</i>	western bumble bee	None	Candidate Endangered	N/A	Yes	Western bumble bee nests, forages, and overwinters in meadows and grasslands with abundant floral resources. Temporary impacts to foraging resources may occur immediately following the broadcast burn, however native floral resources generally respond positively to fire and are expected to increase in abundance following project implementation. No impacts are anticipated.
<i>Buteo swainsoni</i>	Swainson's hawk	None	Threatened	N/A	No	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. Not known to nest in the Santa Cruz Mountains, may occur sporadically as forager (CDFW 2016). No impacts are anticipated.
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	Threatened	None	N/A	No	Occurs in sandy beaches, salt pond levees, and shores of large lakes, which are absent from the project area.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	N/A	Yes	This bat may forage in the project area. Nesting and roosting habitat include caves, empty structures or large basal hollows which may exist in the project area. However, no large (>10" DBH) trees will be removed, and no structures or caves will be impacted. Impacts are not considered significant.
<i>Cypseloides niger</i>	black swift	None	None	N/A	No	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf. No breeding habitat in project area, could occur sporadically as forager. No impacts expected.
<i>Dicamptodon ensatus</i>	California giant salamander	None	None	N/A	No	Occurs in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. Found under rocks near streams, in talus, under damp logs, and other objects. Species may occur near the project area in the vicinity of Hazel Dell Creek; however, no work will occur within 200 feet of the creek.
<i>Elanus leucurus</i>	white-tailed kite	None	None	N/A	No	Occurs in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. No habitat present in project area.
<i>Emys marmorata</i>	western pond turtle	None	None	N/A	No	An aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Utilizes upland areas for nesting. Only one very small (3' x 10') pond was observed in the project area which is not large enough to support this species and no year-round creeks are present in the project area. No impacts are expected.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
<i>Eucyclogobius newberryi</i>	tidewater goby	Endangered	None	N/A	No	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. No brackish water habitats occur in the project area.
<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly	Endangered	None	N/A	No	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. No coastal dune or coastal sage scrub habitat occurs in the project area.
<i>Euphydryas editha bayensis</i>	Bay checkerspot butterfly	Threatened	None	N/A	No	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. Habitat does not occur in the project area.
<i>Icteria virens</i>	yellow-breasted chat	None	None	N/A	No	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Habitat does not occur in the project area.
<i>Lanius ludovicianus</i>	loggerhead shrike	None	None	N/A	No	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. No habitat occurs in the project area.
<i>Lavinia symmetricus subditus</i>	Monterey roach	None	None	N/A	No	Tributaries to Monterey Bay, specifically the Salinas, Pajaro, & San Lorenzo drainages. Not considered extant in the Salsipuedes Creek watershed (UC Davis 2020).
<i>Neotoma fuscipes annectens</i>	San Francisco dusky-footed woodrat	None	None	N/A	Maybe	Forest habitats of moderate canopy & moderate to dense understory. Based on CNDDDB data, San Francisco dusky-footed woodrats do not occur in the southern Santa Cruz Mountains. However, if stick houses are observed, none will be intentionally damaged or destroyed by project activities; fire control lines will be modified to avoid houses and associated screen vegetation and prescribed burns will not occur during peak breeding season in mid spring in known rat nest locations.
<i>Oncorhynchus mykiss irideus</i> pop. 9	steelhead - south-central California coast DPS	Threatened	None	N/A	Yes	Occurs in cool streams with suitable spawning habitat and no dispersal barriers such as dams. Hazel Dell Creek occurs outside of, but near the project. No work within the stream channel or attendant riparian zone will occur. Ground disturbance will be minimal and will not contribute additional sedimentation to stream. Vegetation buffer will be left intact between the creek and the work areas. No impacts are expected.
<i>Phrynosoma blainvillii</i>	coast horned lizard	None	None	N/A	No	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. No records of this species in the Santa Cruz Mountains.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
<i>Rana boylei</i>	foothill yellow-legged frog	None	Endangered	N/A	No	Occurs in partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. While historically occurring within this watershed, FYLF has not been observed since 1928 and is considered likely extirpated from the watershed (CBD 2016). Additionally, the closest historic FYLF record is over two miles from the project area. Therefore, FYLF is considered absent and no impacts are anticipated.
<i>Rana draytonii</i>	California red-legged frog	Threatened	None	N/A	No	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. The closest CNDDDB records for this species is 3 miles from the project area. The small (3' x 10') pond is likely too small and shallow to support breeding CRLF. The pond was surveyed during an April 23, 2020 site visit, and no CRLF, tadpoles, or egg masses were observed. The creeks on the property are densely shaded redwood forest subject to flashy winter and spring flows, which would not support breeding CRLF. The closest possibly suitable habitat is Simas Lake, located 3,000 feet from the project area. This large pond and wetland complex may support CRLF, however likely supports competing fish species and bullfrogs. Simas Lake occurs on private property and could not be investigated closely. Given the distance to known CRLF occurrences (3 miles), the distance to the closest possibly suitable habitat (3,000 feet), and the lack of any suitable habitat within or adjacent to the project area, CRLF are considered absent and no impacts will occur.
<i>Riparia riparia</i>	bank swallow	None	Threatened	N/A	No	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole. Suitable nesting habitat not present in project area.
<i>Taxidea taxus</i>	American badger	None	None	N/A	No	Suitable habitat is characterized by herbaceous, shrub and open stages of most habitats with dry, friable soils. American badger is only known from one occurrence in south Santa Cruz County, from a 1909 collection located approximately 6 miles west of the project area (#320). Given the lack of records within the project vicinity, and the age (110 years) of the closest record, this species is not expected to occur in the project area.
<i>Vireo bellii pusillus</i>	least Bell's vireo	Endangered	Endangered	N/A	No	Nests in riparian woodlands dominated by willow and Fremont's cottonwood. Suitable willow woodlands are typically dense with well-defined vegetative strata or layers. Not known to currently occur in Santa Cruz County.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	N/A	No	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base. Project site is well outside of range of this species.
<i>Arctostaphylos andersonii</i>	Anderson's manzanita	None	None	1B.2	Maybe	No <i>Arctostaphylos</i> species present was observed in the project area, and none are not expected to occur. If any individuals are observed, they will be flagged for avoidance during fire line construction.
<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i>	Hooker's manzanita	None	None	1B.2	No	Hooker's manzanita is restricted to low-lying areas near the coast in southern Santa Cruz and Northern Monterey counties. No potential to occur in the project area.
<i>Arctostaphylos pajaroensis</i>	Pajaro manzanita	None	None	1B.1	No	Pajaro manzanita is restricted to low-lying areas near the coast in southern Santa Cruz and Northern Monterey counties. No potential to occur in the project area.
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	None	None	1B.2	No	Occurs in chaparral, valley and foothill grassland, and cismontane woodland. Sometimes on serpentine soils. This species is not known to occur in the Santa Cruz Mountains.
<i>Calyptridium parryi</i> var. <i>hesseae</i>	Santa Cruz Mountains pussypaws	None	None	1B.1	No	Occurs in chaparral and cismontane woodland. This species often occurs in disturbed areas or in poor soil where there is little competition. Currently, the project area does not support habitat for this species. However, the disturbance associated with the project may create suitable habitat if this species exists in the seedbank.
<i>Castilleja affinis</i> var. <i>neglecta</i>	Tiburon paintbrush	Endangered	Threatened	1B.2	No	Occurs in serpentine grasslands. No habitat occurs in the project area.
<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	pink creamsacs	None	None	1B.2	No	Occurs in openings in chaparral or on grassland, restricted to serpentine soils. No serpentine soils occur in the project area.
<i>Ceanothus ferrisiae</i>	Coyote ceanothus	Endangered	None	1B.1	No	Occurs in chaparral, valley and foothill grassland, and costal scrub habitats on serpentine soils in the Mount Hamilton Range.
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	None	None	1B.1	No	Occurs along margins on vernal moist alkaline grassland. No habitat present in the project area.
<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	dwarf soaproot	None	None	1B.2	No	Occurs in openings in chaparral on serpentine soils. No habitat occurs in the project area.
<i>Chorizanthe pungens</i> var. <i>pungens</i>	Monterey spineflower	Threatened	None	1B.2	No	Occurs in sandy soils (marine sand deposits) in coastal dunes or more inland within chaparral or other habitats. No habitat present in the project area.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
Chorizanthe robusta var. robusta	robust spineflower	Endangered	None	1B.1	No	Occurs in cismontane woodland, coastal dunes, coastal scrub, chaparral on marine sand deposits or sandstone outcrops. This species is restricted to coastal or near coastal habitat. Project site is too far from coastal influence to support this species.
Cirsium fontinale var. campylon	Mt. Hamilton thistle	None	None	1B.2	No	Occurs in open habitats in seasonal and perennial drainages, restricted to serpentine soils. No serpentine soils occur in the project area.
Collinsia multicolor	San Francisco collinsia	None	None	1B.2	No	Shaded herb-rich understory of coast live oak (<i>Quercus agrifolia</i> var. <i>agrifolia</i>) woodland or mixed forest in sheltered, generally mesic, canyon bottom setting (ESF 2020). No habitat occurs in the project area.
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Endangered	None	1B.1	No	Occurs on rocky serpentine outcrops. No habitat present in the project area.
Eryngium aristulatum var. hooveri	Hoover's button-celery	None	None	1B.1	No	Occurs in vernal pools. Not known to occur in the Santa Cruz Mountains. No habitat present in project area.
Erysimum ammophilum	sand-loving wallflower	None	None	1B.2	No	Occurs on sandy openings in chaparral (maritime), coastal dunes, coastal scrub. No habitat present in project area.
Fritillaria liliacea	fragrant fritillary	None	None	1B.2	No	Occurs in Adobe or clay-rich soils in coastal prairie or native bunchgrass grasslands, frequently on serpentine-derived soils. Not known to occur in the Santa Cruz Mountains. No habitat present in the project area.
Gilia tenuiflora ssp. arenaria	Monterey gilia	Endangered	Threatened	1B.2	No	Occurs in chaparral, cismontane woodland, and riparian woodland on serpentine soil in mesic sittings. No habitat occurs in the project area.
Hoita strobilina	Loma Prieta hoita	None	None	1B.1	No	Restricted to serpentine soils, which do not occur in the project area.
Holocarpa macradenia	Santa Cruz tarplant	Threatened	Endangered	1B.1	No	Occurs in coastal prairie on marine terraces. No coastal prairie habitat occurs in the project area.
Horkelia cuneata var. sericea	Kellogg's horkelia	None	None	1B.1	No	Restricted to openings in old dunes and coastal sandhills, which do not occur in the project area.
Legenere limosa	legenere	None	None	1B.1	No	Occurs in vernal pools. No habitat present in project area.
Lessingia micradenia var. glabrata	smooth lessingia	None	None	1B.2	No	Restricted to serpentine soils in chaparral, cismontane woodland, and valley and foothill grassland. No habitat present in the study area.
Malacothamnus arcuatus	arcuate bush-mallow	None	None	1B.2	Yes	Genus is considered a fire follower which is in decline due to fire suppression and is expected to benefit from project activities if it occurs. Currently accepted taxonomy considers this species to be a synonym of the common Malacothamnus fasciculatus (Baldwin et al 2012), therefore impacts would not be considered significant.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
Malacothamnus hallii	Hall's bush-mallow	None	None	1B.2	No	Not known to occur in the Santa Cruz Mountains.
Monolopia gracilens	woodland woollythreads	None	None	1B.2	Yes	Occurs in Serpentinic areas in grasslands or openings in chaparral or oak woodlands. Unlikely to occur in grasslands in the project area due to lack of serpentine soils and elsewhere due dense stands of brush and tree canopy, however limited areas of microhabitat may occur. While broadcast burning will benefit this species through reduction in encroaching woody vegetation, nutrient cycling, and increased sunlight, control line construction could potentially impact this species. A qualified RPF or botanist will determine if potential habitat occurs in areas where control line is proposed. If any potential habitat is present, pre-construction surveys will be conducted, and any individuals found will be avoided.
Pedicularis dudleyi	Dudley's lousewort	None	Rare	1B.2	No	Species inhabits shaded areas in redwood forests and is associated with areas of bare mineral soil such as road cuts. Historically, this species was likely associated with low intensity fires which provided bare mineral soil underneath dense redwood canopy. Due to the history of fire exclusion in this area, and absence of bare mineral soil, this species lacks suitable habitat in the project area.
Penstemon rattanii var. kleei	Santa Cruz Mountains beardtongue	None	None	1B.2	Yes	Openings in conifer forest or oak woodland, in recently burned or disturbed chaparral, or along roadcuts. This is a disturbance dependent species which is outcompeted in late-seral forest and chaparral. It has been observed to reappear following mechanical fuel treatments in the project region (ESF 2020, M. Mosher personal observation). While broadcast burning will benefit this species through reduction in encroaching woody vegetation, nutrient cycling, and increased sunlight, control line construction could potentially impact this species. A qualified RPF or botanist will determine if potential habitat occurs in areas where control line is proposed. If any potential habitat is present, pre-construction surveys will be conducted, and any individuals found will be avoided.
Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	None	None	1B.2	No	Occurs in Vernal wet swales, vernal pools, and saturated soils of herbaceous-plant dominated cliffs and marsh edges along the coast; set in coastal prairie and openings and meadows in oak woodland or mixed-evergreen forest. No habitat present in project area.
Plagiobothrys diffusus	San Francisco popcornflower	None	Endangered	1B.1	No	Sparsely vegetated, mesic sites in coastal prairie or serpentine bunchgrass grasslands. No habitat present in project area.

Scientific Name	N/A Common Name	Federal Listing	State Listing	Rare Plant Rank	Habitat Potential	Rational / Impact Potential
<i>Puccinellia simplex</i>	California alkali grass	None	None	1B.2	No	Occurs within meadows and seeps, chenopod scrub, valley and foothill grassland, and vernal pools. In alkaline, vernal mesic areas in sinks, flats, and lake margins.
<i>Sanicula saxatilis</i>	rock sanicle	None	Rare	1B.2	No	Occurs in Bedrock outcrops and talus slopes in chaparral or oak woodland habitat. No habitat occurs in the project area.
<i>Streptanthus albidus</i> ssp. <i>albidus</i>	Metcalf Canyon jewelflower	Endangered	None	1B.1	No	Occurs in relatively open areas in dry grassy meadows on serpentine soils. No habitat occurs in project area.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewelflower	None	None	1B.2	No	Occurs on serpentine outcrops, on ridges and slopes. No habitat occurs in the project area.
<i>Streptanthus callistus</i>	Mt. Hamilton jewelflower	None	None	1B.3	No	Occurs in chaparral and cismontane woodland in the Mt. Hamilton Range.
<i>Trifolium buckwestiorum</i>	Santa Cruz clover	None	None	1B.1	No	Occurs in vernal moist swales, saturated, clay-rich upland soils in coastal prairie, vernal moist dune hollows, and edges of humic-soil meadow openings in forest. Grasslands and openings in the project area are heavily grazed and dominated by non-native annual grasses. No habitat occurs.
<i>Trifolium hydrophilum</i>	saline clover	None	None	1B.2	No	Occurs in salt marshes, open areas in alkaline soils, and alkaline grassland. No salt marshes or alkaline soils occur in the project area.

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EC-6: GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	Impact Geo-1, 3.7	LTS	<u>SPR GEO-1, 2, 3, 4, 5, 6, 7, 8,</u> <u>SPR HYD-3</u> <u>SPR AQ- 3</u> <u>SPR HYD- 4</u>	Yes	LTS	<input checked="" type="checkbox"/>
<p><i>Project treatment would include manual treatment, prescribed burning (pile burning and broadcast burning), and mechanical treatment, which would result in vegetation removal and soil disturbance. Potential impacts related to soil erosion during implementation of the treatment project are within the scope of the of the activities and impacts addressed in the PEIR because the extent of vegetation removal and intensity of prescribed burning proposed are consistent with those analyzed in the PEIR.</i></p>						
Impact GEO-2: Increase Risk of Landslide	Impact Geo-2, 3.7	LTS	<u>SPR GEO-3, 4, 7, 8,</u> <u>SPR AQ- 3</u>	Yes	LTS	<input checked="" type="checkbox"/>
<p><i>A soil survey was prepared for the project site (Attachment D). No tractor operations will take place on slopes over 35% with the exception of possible fire control line construction. All control lines will be water barred immediately upon completion of burning activities. Known unstable areas will be avoided from project activities. Potential impacts related to landslides during implementation of the treatment project are within the scope of the of the activities and impacts addressed in the PEIR because the extent of vegetation removal, intensity of prescribed burning, and avoidance of steep slopes are consistent with those analyzed in the PEIR.</i></p> <p><i>Additionally, Central Coast WQCB was consulted regarding the project (refer to attached correspondence) and had several recommendations; some of which were already included in the project design, or have since been incorporated when appropriate and feasible, and are as follows:</i></p> <ul style="list-style-type: none"> <i>Dozer-work shall be limited to slopes less than ~30% in steepness (35% in actuality). Dozers shall be operated such that the dozer blade or rake does not dig into the soil profile. Where cleat tracks leave visible impressions on the soil, track indentations shall be perpendicular to the slope direction.</i> <i>Construction or reconstruction of fire control lines shall be limited to topographic ridge divide locations.</i> <i>Fire control lines (fuel breaks) shall be limited in width to 12 feet.</i> <i>Prevention and cleanup of heavy equipment fuel and lubricant spills shall be prioritized.</i> <i>Pile burn locations shall be rotated</i> 						

<p>Other Impacts to Geology, Soils, Paleontology, And Mineral Resources: Would the project result in other impacts to geology, soils, paleontology, and mineral resources that are not evaluated in the CalVTP PEIR?</p>				No	N/A	<input checked="" type="checkbox"/>
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	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/Monitoring Entity
<p>SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if the National Weather Service forecast is a “chance” (30 percent or more) of rain within the next 24 hours. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types.</p>	Yes	<p><u>CAL FIRE</u> During</p>	<p><u>CAL FIRE</u></p>
<p>SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. This SPR applies only to mechanical treatment activities and all treatment types.</p>	Yes	<p><u>CAL FIRE</u> During</p>	<p><u>CAL FIRE</u></p>
<p>SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. This SPR only applies to mechanical and prescribed herbivory treatment activities and all treatment types.</p>	No	N/A	N/A
<p><i>Areas of bare soil will be present on some slopes over 50% following prescribed burning in grass and shrub dominated vegetation. Slopes will revegetate quickly postburn; either through germination of grasses following the onset of fall rains or the sprouting of shrubs from root collars within days to weeks following the burn. No tractors will operate on slopes over 35% with the exception of possible control line construction. All control lines will be water barred immediately upon completion of burning activities. Any inadvertent soil deposition into channels from chaining activities will be removed and stabilized. The mulching of areas is not necessary and is not practical. Central Coast WQCB was consulted regarding the project (refer to attached correspondence) and had several recommendations; some of which were already included in the project design, or have since been incorporated when appropriate and feasible, and are as follows:</i></p> <ul style="list-style-type: none"> • <i>Dozer-work shall be limited to slopes less than ~30% in steepness (35% in actuality). Dozers shall be operated such that the dozer blade or rake does not dig into the soil profile. Where cleat tracks leave visible impressions on the soil, track indentations shall be perpendicular to the slope direction.</i> • <i>Construction or reconstruction of fire control lines shall be limited to topographic ridge divide locations.</i> 			

<ul style="list-style-type: none"> • <i>Fire control lines (fuel breaks) shall be limited in width to 12 feet.</i> • <i>Prevention and cleanup of heavy equipment fuel and lubricant spills shall be prioritized.</i> • <i>Pile burn locations shall be rotated</i> 			
<p>SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. This SPR applies only to mechanical and prescribed burning treatment activities and all treatment types.</p>	Yes	CAL FIRE During-Post	<u>CAL FIRE</u>
<p><i>Water bars will be installed on control lines immediately following burning activities.</i></p>			
<p>SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types.</p>	Yes	CAL FIRE During-Post	<u>CAL FIRE</u>
<p><i>Water breaks shall be installed diagonally as a trench at least 6-inches in to a firm ground base with a minimum of a 6-inch berm on the downhill side so that water can be intercepted and directed away from the exposed control line surface. The exit area for the water must be free of blockages allowing for free flow of water. Water breaks shall be installed mid slope of control lines on slopes greater than 50% at 75 feet, 26-50% at 100 feet, 11-25% at 150 feet, and 10% or less at 200 feet.</i></p>			
<p>SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types.</p>	Yes	CAL FIRE During	<u>CAL FIRE</u>
<p>SPR GEO-7 Minimize Erosion, Slope Restrictions for Heavy Equipment and Tractor Roads. This SPR applies to all treatment activities and all treatment types.</p>			
<p><i>No tractor operations will take place on slopes over 35% with the exception of possible control line construction. All control lines will be water barred immediately upon completion of burning activities. Central Coast WQCB was consulted regarding the project (refer to attached correspondence) and had several recommendations; some of which were already included in the project design, or have since been incorporated when appropriate and feasible, and are as follows:</i></p> <ul style="list-style-type: none"> • <i>Dozer-work shall be limited to slopes less than ~30% in steepness (35% in actuality). Dozers shall be operated such that the dozer blade or rake does not dig into the soil profile. Where cleat tracks leave visible impressions on the soil, track indentations shall be perpendicular to the slope direction.</i> • <i>Construction or reconstruction of fire control lines shall be limited to topographic ridge divide locations.</i> • <i>Fire control lines (fuel breaks) shall be limited in width to 12 feet.</i> • <i>Prevention and cleanup of heavy equipment fuel and lubricant spills shall be prioritized.</i> • <i>Pile burn locations shall be rotated</i> 			

<p>SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior</p>	<p><u>CAL FIRE</u></p>
<p><i>Consistent with SPR GEO-7, no tractor operations will take place on slopes over 35% with the exception of possible control line construction. All control lines will be water barred immediately upon completion of burning activities. Additionally, the portions of steep slopes will be left untreated to aid in slope stability. Central Coast WQCB was consulted regarding the project (refer to attached correspondence) and had several recommendations; some of which were already included in the project design, or have since been incorporated when appropriate and feasible, and are as follows:</i></p> <ul style="list-style-type: none"> • <i>Dozer-work shall be limited to slopes less than ~30% in steepness (35% in actuality). Dozers shall be operated such that the dozer blade or rake does not dig into the soil profile. Where cleat tracks leave visible impressions on the soil, track indentations shall be perpendicular to the slope direction.</i> • <i>Construction or reconstruction of fire control lines shall be limited to topographic ridge divide locations.</i> • <i>Fire control lines (fuel breaks) shall be limited in width to 12 feet.</i> • <i>Prevention and cleanup of heavy equipment fuel and lubricant spills shall be prioritized.</i> • <i>Pile burn locations shall be rotated</i> 			

EC-7: GREENHOUSE GAS EMISSIONS

	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
<p>Impact GHG-1: Conflict with applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs</p>	Impact GHG-1, 3.8	LTS	<u>SPR GHG- 1</u>	Yes	LTS	<input checked="" type="checkbox"/>
<p><i>Use of vehicles, prescribed burning, and mechanical equipment during treatments would result in GHG emissions. Consistency of treatments under the CalVTP with applicable plans, policies, and regulations aimed at reducing GHG emissions was examined in the PEIR. The impact is within the scope of the PEIR analysis and site specific analysis.</i></p>						
<p>Impact GHG-2: Generate Greenhouse Gas Emissions through Treatment Activities</p>	Impact GHG-2, 3.8	PSU	<u>SPR AQ- 3</u> <u>MM GHG- 2</u>	Yes	LTSM	<input checked="" type="checkbox"/>

Use of vehicles, prescribed burning, and mechanical equipment during initial and maintenance treatments would result in GHG emissions though such emissions would have no measurable influence on the global carbon cycle. The potential for treatments under the CalVTP to generate GHG emissions was examined in the PEIR. In addition, project-specific emissions were calculated and methods from MM GHG-2 have been integrated into the treatment design. Generation of GHG emissions from the project treatments are within the scope of the PEIR analysis and site specific analysis.

Other Impacts to related to Greenhouse Gases: Would the project result in other impacts related to greenhouse gases that are not evaluated in the CalVTP PEIR?				No	N/A	<input checked="" type="checkbox"/>
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	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/Monitoring Entity
SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity. This SPR applies to all treatment activities and all treatment types.	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<i>It is estimated the project will produce 895 metric tons of CO₂ from burning vegetation and 1 ton of CO₂ from motorized exhaust for a total of 896 metric tons of CO₂, see attached calculations and GHG write up.</i>			
MM GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.	Yes	<u>CAL FIRE</u> Prior-During	<u>CAL FIRE</u>
<p><i>The following methods have been integrated into the treatment design:</i></p> <ul style="list-style-type: none"> <i>reduce the total area burned by isolating and leaving large fuels (e.g., large logs, snags) unburned;</i> <i>burn when fuels have a higher fuel moisture content;</i> <i>schedule burns before new fuels appear</i> 			

EC-8: Energy

	PEIR specific	Project specific
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<p>SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent would 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.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p>SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent would: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information would be provided with the notice) if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p>SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>
<p><i>Trash receptacles will not be needed on-site. CAL FIRE staff be advised to remove all trash generated daily. Non-biodegradable flagging will be removed once the project has been completed and is no longer needed to protect the resources.</i></p>			
<p>SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent would post signs in a conspicuous location near the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information would be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.</p>	<p>Yes</p>	<p><u>CAL FIRE</u> Prior-During</p>	<p><u>CAL FIRE</u></p>

<p>SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. This SPR applies to all treatment activities and all treatment types.</p>	Yes	<u>CAL FIRE</u> Prior-During-Post	<u>CAL FIRE</u>
<p>SPR AD-8 Request Access for Post-Treatment Assessment. For CAL FIRE projects, during contract development, CAL FIRE would include access to the treated area over a prescribed period (usually up to three years) to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance, as a contract term for consideration by the landowner. For public landowners, access to the treated area over a prescribed period would be a requirement of the executed contract. This SPR applies to all treatment activities and all treatment types.</p>	Yes	<u>CAL FIRE</u> Prior	<u>CAL FIRE</u>
<p>SPR AD-9. Obtain a Coastal Development Permit for Proposed Treatment Within the Coastal Zone Where Required. When planning a treatment project within the Coastal Zone, the project proponent would contact the local Coastal Commission district office, or applicable local government to determine if the project area is within the jurisdiction of the Coastal Commission, a local government with a certified Local Coastal Program (LCP), or both. This SPR applies to all treatment activities and all treatment types.</p>	No	N/A	<u>N/A</u>
<p><i>The project area is not within the Coastal Zone.</i></p>			

EC-18: MANDATORY FINDINGS OF SIGNIFICANCE

	New Impact that is Significant or Potentially Significant	New Impact that is Less Than Significant with Mitigation Incorporated	New Impact that is Less Than Significant Impact	No New Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

No additional comments.

Additional information:

- List of Standard Project Requirements (SPRs) and Mitigations Measures (MMs). (See Attachment A)
- Vicinity map on a USGS quad map (SPR AD-2)
 - Aerial imagery/Parcel map of subsequent activity area (**see maps**)
 - Subsequent activity location on Treatable Landscape & Ecoregions Map
 - Parcel map with APN's covering all ownerships within subsequent activity area
 - Soil survey map of subsequent activity area – **See Attachment D – Soil Report**
- Smoke Management Plan/Burn Plan (SPR AQ-2 & 3) – **SMP will be submitted/approved prior to burning**
 - Public Notice for Prescribed Burning – **Will be posted prior to burning**
 - Model run of FOFEM, BEHAVE, or other appropriate fire behavior modeling simulation
 - Burn Unit Maps – Ortho and Topographic
- Air District Asbestos Dust Control Plan (SPR AQ-5)
- Incident Action Plan (IAP) (SPR AQ-6) – **Will be prepared prior to burning**
- Archaeological reviews/surveys (Confidential addendum) (EC-4)
- Biological review/surveys (EC-5)
 - CNDDDB Records Search - **See Attachment C**
 - Biologist Consultation/Notification- **See Attachment C**
 - Water Quality consultation – **No response to October 12, 2020 email**
 - Special Status Species Table (CalVTP Appendix BIO-3) – **See Attachment C**
- Biological Compensation Plan (MM BIO-1c, 2c, 2d, 2e, 2f, 3b, 3c,)
- Geological Review (MM GHG-2)
- Spill Prevention & Response Plan (SPR HAZ-5)
- Traffic Management Plan (SPR TRAN-1)
- Organic waste Disposal Plan (SPR UTIL-1)
- Air Quality and GHG Emissions Estimates (SPR GHG-1)
 - Air Quality consultations - **SMP will be submitted/approved prior to burning**
- Off-Site Noise-Sensitive Receptors Notification (SPR NOI-6)
 - Other _____

DELIVERABLES POST APPROVAL

- Public Notification (News/Press Release)
- Authorized PFIRS Ignition Request
- Live Fire Notification
- Approved FC 400
- Public Notifications to neighbors
- Weather Forecasts/Spot weather Forecasts
- Go NO Go Checklist
- Incident Action Plans (IAP's, Prescribed burn activities)
- Completion Reports to Region
- Other: FC 33, Project Photos