EC-5: BIOLOGICAL 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 BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	Impact BIO-1, 3.6	PS	SPR BIO-1, 2, 7, 9 SPR AQ-3, 4, SPR GEO-1, 3, 4, 5, 7 SPR HYD-5 MM BIO-1a, 1b, 1c	Yes	LTSM	☒
All applicable measures to prevent and minimize potential impacts to special-status plant species are included in the SPR's and MM's (presented in the CalVTP EIR and further detailed below) associated with this impact.						
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	Impact BIO-2, 3.6	PS / SU	SPR BIO-1, 2, 3, 4, 5, 8, 10, 11 SPR HYD-1, 3, 4, 5 SPR HAZ-5, 6 MM BIO-2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 3b, 3c, 4	Yes	LTSM	☒
All applicable measures to prevent and minimize potential impacts to special-status wildlife species are included in the SPR's and MM's associated with this impact.						
Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function	Impact BIO-3, 3.6	PS	SPR BIO-1, 2, 3, 4, 5, 6, 8, 9 SPR HYD-4, 5 MM BIO-3a, 3b, 3c	Yes	LTSM	☒

Project treatments of prescribed burning, manual fuels reduction, and mechanical treatment could result in direct or indirect adverse effects to sensitive habitats. All applicable measures to prevent and minimize potential impacts to riparian habitat or other sensitive natural communities are included in the SPR's and MM's associated with this impact.						
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	☒
There are no protected wetlands within, adjacent to or downstream of the project area.						
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	LTSM	☒
Project treatments of prescribed burning, manual fuels reduction, and mechanical treatment could result in direct or indirect adverse effects to wildlife movement corridors and nurseries. All applicable measures to prevent and minimize potential impacts that would interfere substantially with wildlife movement corridors or impede the use of nurseries are included in the SPR's and MM's associated with this impact.						
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	Impact BIO-6, 3.6	LTS	SPR BIO-1, 2, 3, 4, 5, 12	Yes	LTS	☒
Project treatments of prescribed burning, manual fuels reduction, and mechanical treatment could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife. All applicable measures to prevent and minimize potential impacts that would substantially reduce habitat or abundance of common wildlife are included in the SPR's associated with this impact.						
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	Impact BIO-7, 3.6	No Impact	SPR AD- 3	No	N/A	☒
There are no known local policies or ordinances that would conflict with this project.						
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	☒
The project site is not within the plan area of any adopted HCP or NCCP.						
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	☒

	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.** 2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided**. This SPR applies to all treatment activities and treatment types.	Yes Yes No	CAL FIRE Prior	CAL FIRE

A CNDDB 12 quad search, centered on the Crank Mountain and Donica Mountain Quads, was conducted by CAL FIRE staff on March 31, 2022, to obtain an inventory of the status and locations of rare, threatened, endangered or species of special concern for animals within or near the project area. Additionally, a 12 quad search, centered on the Crank Mountain and Donica Mountain quads was conducted by California Department of Fish and Wildlife (CDFW) Environmental Scientist, Merissa Hanisko April 7, 2019. CDFW performed botanical surveys June 5, 7, 14, and 26 2019. CDFW produced a botanical survey report in December 2019. The PEIR has provided a plant and animal listing based on ecoregions defined within the PEIR. The project is within the "Modoc Plateau" ecoregion (M261G). Appendix BIO-3, Table 18a-Wildlife Species, 5a-Plant Species, and Table 19-Fish Species were reviewed and compared to the CNDDB search for special-status plants and wildlife that could occur in the "Modoc Plateau" ecoregion. CNDDB results and species associated with the Modoc Plateau bioregion are included as an attachment (appendix A).

PLANTS

The 12 Quad CNDDB search identified twenty-four (24) list 1 or 2 special status plant species. Of these 24 species 18 are addressed in the Modoc Plateau Ecoregion (appendix A). Four special status plant species were excluded from surveys due to lack of perennial aquatic habitat within the project area.

Twenty of these species are associated with habitat that may occur within the project area. However, only one (1) of these species was identified to be present within the project area. This species, Calochortus longebarbatus var. longebarbatus, was observed during botanical surveys related to this project. It is associated with wetland-riparian habitat in yellow pine forests from 3,935' – 6,235'. The area of the occurrence lies within the 25' WLPZ of a Class III. Additionally the species will be flagged with a 15' buffer for avoidance from all operations prior to activities in the area. The blooming period for this species is June thru August. It is not anticipated that treatment activities will have a negative effect on the plant community.

WILDLIFE

The Modoc Plateau ecoregion includes 60 special status wildlife species (appendix A). A local area CNDDB search identified eighteen (18) special status wildlife species. Eleven of these species area also included in the Modoc Plateau Ecoregion. Six (6) of these species were

not evaluated further, because their habitat requirements do not exist within the project. The remaining eleven species are evaluated further due to local occurrences found on CNDDB and/or having a broad habitat range that may include features found within the project area.

Project letters were sent to the California Department of Fish and Wildlife (CDF&W) and Central Valley Regional Water Quality Control Board (CVRWQCB) requesting assistance / information that would be helpful for project design. Responding agencies indicated they had no concerns based on project design features.

At the end of this section (below) are two Species Status Summary Tables based on the CNDDB 12-quad search and Modoc Plateau ecoregion. The first table lists seventeen animals. The second table lists twenty plants.

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.	Yes	CAL FIRE Prior-During	CAL FIRE
Areas of concern will be identified and delineated by CAL FIRE staff prior to operations. Protection measures will be discussed at pre-operational meetings to ensure areas of concern are adequately protected. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
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.	Yes	CAL FIRE Prior-During	CAL FIRE
Sensitive natural communities and/or or sensitive habitats do not exist within the project area and were not listed in the local 12 quad CNDDB scoping. This project will not result in a negative impact to sensitive natural communities or sensitive habitats.			
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.	Yes	CAL FIRE Prior-During	CAL FIRE

Several Class III intermittent watercourses are present within the project area. Class III watercourses are defined in the Forest Practice Rules, Title 14 CCR Section 936.5. Fuel reduction within the standard width of an WLPZ will be limited to manual treatment of ladder fuels (tress less than 10 inches' diameter) and prescribed burning. WLPZ widths will be as follows.

Slope (%)	*Class III (ft.)*
<30	*25'*
30-50	*25'*
>50	*25'*

The following practices will be implemented within the WLPZ:

- *No equipment use.*
- *No servicing of vehicles and equipment.*

- *No burn piles.* - *No ignitions. However, fire will be allowed to back into the zone.* *There are several existing roads and dozer lines located within the project area that are within the standard width of the WLPZ. Vehicles and equipment may use these roads and dozer lines to access the project area. However, vehicles and equipment will be restricted to existing road and dozer line surface. See attachment 4 for a complete list and full description of SPR's and MM's being implemented with this project.*			
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	No	CAL FIRE N/A	
Neither Chaparral nor Coastal Sage Scrub habitat is found within the project area.			
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., Ione chaparral, blue oak woodland), the project proponent will implement best management practices to prevent the spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle). This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Personnel will be advised to clean equipment, tools, and vehicles before arriving at the project location and prior to leaving the project at the completion of operations. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
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.	Yes	CAL FIRE Prior	CAL FIRE
Based on SPR BIO-1, Surveys were conducted, and non-listed special status plant species were discovered within the project area. These species will be flagged with a 15' no operations buffer and no disturbance will result from operations. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
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	CAL FIRE N/A	
This project is not located within a 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	CAL FIRE Prior-During	CAL FIRE
Personnel will be advised to clean equipment, tools, and vehicles before arriving at the project location and prior to leaving the project at the completion of operations. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
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.	No	CAL FIRE N/A	
SPR BIO-1 determined that suitable habitat for special-status wildlife species may exist within the project area. See 'Species Status Summary Table' below for a complete list. These species will be avoided by implementing SPR BIO-4, MM BIO-2a, and MM BIO-2b.			
SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). This SPR applies only to prescribed herbivory and all treatment types.	No	CAL FIRE N/A	
Prescribed herbivory is not a planned treatment for this project.			
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.	Yes	CAL FIRE Prior-During	CAL FIRE
Procedures for potential nesting birds if operations are proposed between March 1, and August 31: • *An RPF or supervised designee perform a cursory/visual search of the project area for nesting birds prior to operations.* • *If an active nest is identified, activities within 100 feet of the nest will stop and CDFW will be contacted to develop an avoidance strategy.* • *If a listed species is identified within or immediately adjacent to the project area CDFW will be contacted to develop avoidance measures specific to identified listed species.* *See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.*			
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).	Yes	CAL FIRE Prior-During	CAL FIRE

No special status plants listed under ESA or CESA exist within the project area. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
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.	Yes	CAL FIRE Prior-During	CAL FIRE
Based on SPR BIO-1 and SPR BIO-7, one (1) special status plant species occurs within the project area in a broad seasonally wet Class III drainage. This species, Calochortus longebarbatus var. longebarbatus was discovered during botanical surveys associated with the project. The sensitive plant species is located within a broad Class III drainage that will be flagged with a 25' WLPZ excluding mechanical operations. Additionally, a 15' no operations buffer will be flagged around the species occurrence to protect the species from any disturbance that could result from operations. Diplacus pygmaeus a CNPS list four species was discovered to be within the project area during CDFW botanical surveys. It was recommended by the CDFW botanical surveyor that the occurrence be afforded protections. The occurrence is located within a 12 foot long by 5-foot-wide depression at the northeast portion of the project. The area will be flagged with a 15 'buffer for avoidance prior to operations and will receive no disturbance from operations. Project implementation will not result in a significant impact to the species. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
MM BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants 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. 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.	No	CAL FIRE N/A	
Mitigation Measures BIO- 1a and 1b ensures significant impacts on listed or non-listed special-status plants will be avoided. Therefore, a Compensatory Mitigation Plan is not required.			
MM BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities)	Yes	CAL FIRE During	CAL FIRE
A Species Status Summary Table based on SPR BIO-1 is located at the end of this section. This table lists eighteen (18) animals. See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			

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. 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.	Yes	CAL FIRE Prior-During	CAL FIRE
See attachment A for a complete list and full description of SPR's and MM's being implemented with this project.			
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. 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.	No	CAL FIRE N/A	
Mitigation Measures BIO-2a & BIO-2b will be implemented, therefore no additional mitigation is necessary to reduce significant impacts.			
MM BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)	No	CAL FIRE N/A	
The Valley Elderberry Longhorn Beetle was not identified in the CDFW CNDDB biological search, nor the EIR Ecoregion for the project location. It's associated host plant, elderberry, was not identified in either the CDFW CNDDB or EIR Ecoregion biological searches. Habitat for this species is not found within the project area.			
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.	No	CAL FIRE N/A	

			canopy closures and large trees but relatively open understories.	
greater sandhill crane *Antigone canadensis tabida*	N	TH	Wetlands, marshes, agricultural fields.	Not likely to occur. Habitat elements for this species does not exist within the project area. No anticipated impact.
golden eagle *Aquila chrysaetos*	N	N	The golden eagle inhabits open country from barren areas to open coniferous forests. Primarily in hilly and mountainous regions, but also on the plains, in the tundra, and rugged deserts. Large trees and snags typically serve as nest and perch trees.	May occur. Habitat elements for the species exist within the project area. No anticipated impact. No evidence of the species presence was found during site visits or surveys. No anticipated impact.
western bumble bee *Bombus occidentalis*	N	CE	Found in a range of habitats, including mixed woodlands, farmlands, urban areas, montane meadows and into the western edge of the prairie grasslands.	Not likely to occur. Habitat elements for the species are limited within the project area. No anticipated impact.
Swainson's hawk *Bueto swainsoni*	N	TH	Suitable habitat includes grassland, scrub, piñon and juniper woodlands, and valley and foothill grasslands.	Not likely to occur. Habitat elements for this species does not exist within the project area. No anticipated impact.
gray wolf *Canis lupus*	E	E	Wolves historically occupied diverse habitats throughout North America, including forests, grasslands, deserts and tundra. In California, the current known suitable wolf habitat encompasses millions of acres of public and private forests, rangeland, and agricultural lands in the northern portion of the state.	May occur. There are habitat elements within the project area, however no known activity centers are within Modoc County. No evidence of the species presence was found during site visits or surveys. No anticipated impact.
Modoc sucker *Catostomus microps*	DL	E	Stream in northern California and southern Oregon with substrates of sediment and cobble with large amounts of detritus in the water that the fish uses for cover. It also uses overhanging banks, large rocks, and vegetation for cover. Spawning occurs in substrates with a lot of gravel.	Not likely to occur. Habitat elements for this species does not exist within the project area. No anticipated impact.