CalVTP Project-Specific Analysis for the Tecuya Ridge Shaded Fuelbreak Project, Kern County, California

CALVTP ID 2022-03

FEBRUARY 2022

PREPARED FOR

Kern County Fire Department

PREPARED BY

SWCA Environmental Consultants

CALVTP PROJECT-SPECIFIC ANALYSIS FOR THE TECUYA RIDGE SHADED FUELBREAK PROJECT, KERN COUNTY, CALIFORNIA

CalVTP ID 2022-03

Prepared for

Kern County Fire Department
5642 Victor Street
Bakersfield, CA 93308
Attn: Andrew Kennison

Prepared by

Jacqueline Markley, M.S., AICP

SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401
(805) 543-7095
www.swca.com

SWCA Project No. 61332 P17

February 2022

CONTENTS

Appendices

Figures

Tables

Acronyms and Abbreviations

ºF	degrees Fahrenheit
AB	Assembly Bill
ACM	asbestos-containing material
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Division of Occupational Health and Safety Administration
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CalVTP	California Vegetation Treatment Program
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
DBH	diameter at breast height
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
EEZ	Equipment Exclusion Zone
GHG	greenhouse gas
HWCA	Hazardous Waste Control Act
IPaC	Information for Planning and Consultation
KCFD	Kern County Fire Department
LMP	Land Management Plan
LOP	limited operating period
LOS	level of service
LPFW	Los Padres Forest Watch
LPNF Fuelbreak Assessment	*Los Padres National Forest Strategic Fuelbreak Assessment*
MMRP	Mitigation Monitoring and Reporting Program
Mt. Pinos CWPP	*Mount Pinos Community Wildfire Protection Plan*
$MTCO_2e$	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission

NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOx	nitrogen oxides
NWI	National Wetlands Inventory
OHV	off-highway vehicle
OPR	California Governor's Office of Planning and Research
PDF	Project Design Feature
PEIR	Program Environmental Impact Report
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
PRC	Public Resources Code
proposed project	Tecuya Ridge Shaded Fuelbreak Project
PSA	Project-Specific Analysis
ROG	reactive organic gases
RPF	Registered Professional Forester
RWQCB	Regional Water Quality Control Board
SCS	Sustainable Communities Strategy
SENL	single event [impulsive] noise level
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SPR	Standard Project Requirement
SR	State Route
STZ	Special Treatment Zone
TACs	toxic air contaminants
TEPCS	threatened, endangered, proposed, candidate, or sensitive
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
WLPZ	Watercourse and Lake Protection Zone
WUI	wildland-urban interface

1 PROJECT OVERVIEW

The California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (PEIR) evaluates the potential environmental effects of implementing qualifying vegetation treatments to reduce the risk of wildfire throughout the State Responsibility Area in California (Ascent Environmental 2019). It was designed for use by many state, special district, and local agencies to accelerate vegetation treatment project approvals by finding them to be within the scope of the PEIR.

The Kern County Fire Department (KCFD) proposes to implement fuel reduction activities in an unincorporated area in the southwestern portion of Kern County, California, approximately 3.5 miles northwest of the unincorporated community of Frazier Park and approximately 8 miles west of the unincorporated community of Lebec (Figure 1). KCFD is seeking California Environmental Quality Act (CEQA) compliance for the Tecuya Ridge Shaded Fuelbreak Project (proposed project) through preparation of this CalVTP Project-Specific Analysis (PSA).

1.1 CEQA Lead Agency and Proposed Project

Serving as the Lead Agency under CEQA, KCFD proposes to implement fuel reduction treatments on approximately 165 acres of land in unincorporated Kern County, California. KCFD is seeking CEQA compliance for the proposed project as a later activity covered by the PEIR using its PSA checklist. The proposed treatment type (i.e., fuelbreak) and the treatment activities (i.e., manual treatments, mechanical treatments, and prescribed burning) are consistent with those evaluated in the PEIR and the treatment areas are entirely within the CalVTP treatable landscape.

1.2 Purpose of this Document

This document serves as the PSA to evaluate whether the proposed project is within the scope of the PEIR. As described above, the treatment types and treatment activities are consistent with the CalVTP. Among the other criteria for determining whether a treatment project is within the scope of the PEIR is whether it is within the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the PEIR). If a proposed vegetation treatment project is covered by the evaluation of environmental effects in the PEIR, it may be approved using a finding that the project is within the scope of the PEIR for its CEQA compliance, consistent with State CEQA Guidelines Section 15168(c)(2).

The project-specific Mitigation Monitoring and Reporting Program (MMRP), which identifies the CalVTP Standard Project Requirements (SPRs) and mitigation measures applicable to the proposed project, is presented in Appendix A.

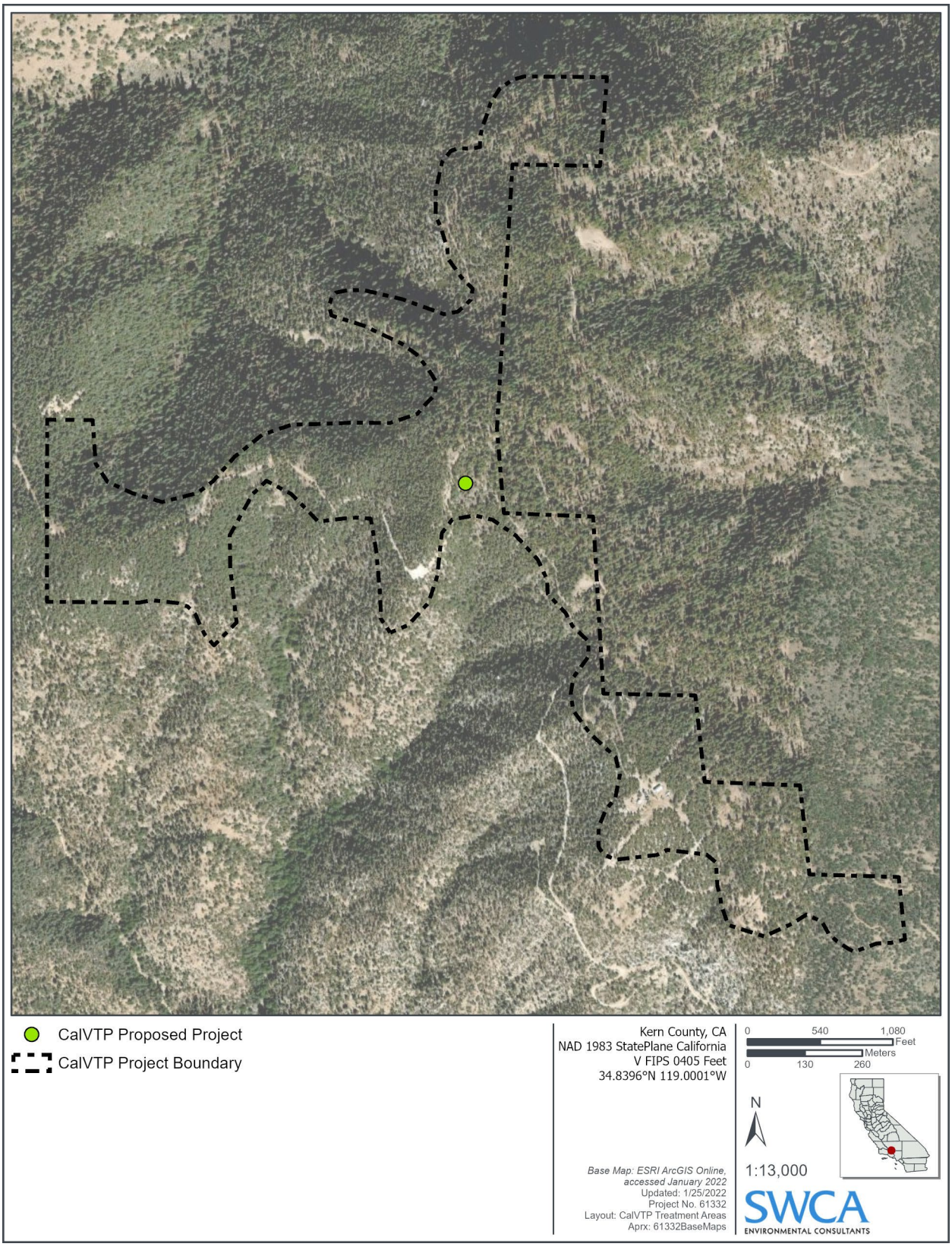

Figure 1. Project location map.

2 PROJECT DESCRIPTION

2.1 Project Background

The proposed project area (Tecuya Ridge) is included in the *Mount Pinos Community Wildfire Protection Plan* (Mt. Pinos CWPP), which was created with the intent of safeguarding communities from wildfire by identifying overall wildfire risks in the area and providing the basis for pre-suppression strategies (Mt. Pinos Communities Fire Safe Council 2006). The proposed project area is also included in the *Los Padres National Forest Land Management Plan* (LMP), which includes strategies for long-term sustainability and management of the Los Padres National Forest (U.S. Department of Agriculture [USDA] 2005). The *Los Padres National Forest Strategic Fuelbreak Assessment* (LPNF Fuelbreak Assessment) was conducted using a science-based approach to determine areas within the forest where fuelbreaks are necessary and provides management suggestions to support ongoing maintenance (U.S. Forest Service [USFS] n.d.). The Mt. Pinos CWPP and the LPNF Fuelbreak Assessment identify the Tecuya Ridge area as a priority treatment area.

2.2 Purpose and Need

The proposed project area is dominated by piñon pine (*Pinus edulis*), as well as Jeffrey pine (*Pinus jeffreyi*) and white fir (*Abies concolor*) stands. This area has experienced tree mortality due to invasion of bark beetles, extreme drought conditions, and overcrowding that has led to competition between stands. Due to these existing conditions, the proposed project area is at risk for stand-replacing wildfires. There is a high likelihood of wildland fire and associated risk to communities and infrastructure in the vicinity of the proposed project area. The purpose of the proposed project is to connect two segments of USFS land, provide safe and effective locations to perform fire suppression operations, slow the spread of a wildland fire at fuelbreak locations, allow for the efficient construction of emergency fire lines when needed, and reduce the potential for the loss of life, property, and natural resources. The proposed project would improve forest resilience to insects, drought, and wildfire by reducing stand densities and reducing the number of trees that are competing for limited resources, such as water.

2.3 Project Activities

The proposed project consists of fuel reduction treatments over approximately 165 acres of private land within the Mt. Pinos Place Management Area to create a variable-width, shaded fuelbreak along a portion of Tecuya Ridge, which overlooks the community of Lake of the Woods (see Figure 1). The proposed project would connect to a fuelbreak being conducted on surrounding LPNF land. The proposed project area would be accessed via Tecuya Ridge Road from the south.

The proposed project includes the removal of dead trees within the proposed fuelbreaks, which would generally occur in areas with less than 30 percent slopes. In addition, surface fuels would be masticated, chipped, or piled and burned in order to reduce fuel loads and create the proposed fuelbreak. Green trees less than 10 inches diameter at breast height (DBH) would be thinned to an appropriate level based on size and species as identified by the Registered Professional Forester (RPF). Healthy Jeffrey pine, white fir, and larger piñon pines would be the preferred trees to be left within stands and would be up to the discretion of the RPF. Trees that are not removed from stands would be limbed up to approximately 8 feet to reduce ladder fuels. The proposed project would also include road brushing to improve ingress and egress for residents and emergency vehicles. Scattered large, dead trees may be designated as wildlife trees by the RPF and would not be cut if they do not pose a threat to workers or roads. There are five landowners associated with the proposed project area and treatments may be adjusted to meet individual

goals and objectives of these landowners; however, the condition of the fuelbreak after treatment would be a stand of well-spaced, vigorous overstory trees with an open understory and a shallow surface fuel bed.

Proposed fuel reduction treatments include a combination of mechanical thinning, mastication of brush and smaller trees, and hand treatments (i.e., hand thinning, brush cutting, pruning, and piling of material). Treatment activities would also include pile burning, chipping, and lop and scatter to reduce fuel loads that accumulate as a result of thinning and mastication activities. The proposed project would reduce fuel load within piñon pine, Jeffrey pine, and white fir stands, which is consistent with the treatable landscape requirements of the PEIR. The proposed fuel reduction treatments are outlined in Table 2-1.

Table 2-1. Proposed CalVTP Treatments

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activity	Treatment Size (acres)	Equipment Used for Treatments	Timing of CalVTP Treatments
Fuelbreak	Use of motorized equipment to cut, uproot, crush/compact, or chop existing vegetation to create zones of vegetation removal and ongoing maintenance that support fire suppression by providing responders with a staging area or access to a remote landscape for fire control actions	Mechanical Treatment	112 acres	One masticator mounted on a large (D7-size undercarriage) feller buncher; one midsize (D4-size undercarriage) track-mounted masticator; one skid steer; one wheeled chipper	20 to 25 working days Mastication would be conducted during the fall, winter, or spring and not during hot, dry periods.
Fuelbreak	Use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous or woody species to create zones of vegetation removal and ongoing maintenance that support fire suppression by providing responders with a staging area or access to a remote landscape for fire control actions	Manual Treatment	112 acres	Chainsaws; pole pruners; blowers	5 to 10 working days No restrictions on timing.
Fuelbreak	Burning of piles of vegetative material to remove biomass following treatments to create the proposed fuelbreak	Prescribed Burning	5 acres	--	Prescribed burning would be conducted under specific conditions related to fuels, weather, and other variables.

Source: Ascent Environmental (2019); KCFD (2021)

2.3.1 *Treatment Type: Fuelbreak*

The proposed project would create a shaded fuelbreak along Tecuya Ridge to provide a connection between two previously identified areas where shaded fuelbreak activities will occur on LPNF land. The proposed shaded fuelbreak would provide areas to perform fire suppression operations, slow the spread of a wildland fire, allow for the efficient construction of emergency fire lines, and reduce the potential for the loss of life, property, and natural resources as a result of wildland fire. In conjunction with thinning and vegetation removal activities to create the proposed fuelbreak, implementation of the proposed project would reduce competition between stands, increase forest resilience against insects and disease,

and create an overall more fire resilient vegetative community. This proposed treatment type is consistent with the PEIR for modifications of landscape to reduce losses and improve resiliency to wildfire (Ascent Environmental 2019).

2.3.2 *Treatment Activities*

As described in Table 2-1, proposed treatment activities include mechanical thinning, manual thinning, and prescribed burning over approximately 165 acres of the Tecuya Ridge area. Each of these activities are included as vegetation treatments in the PEIR and are described in detail below.

MECHANICAL VEGETATION TREATMENT

Mechanical treatments include the use of motorized equipment to cut, uproot, crush/compact, or chop existing vegetation (Ascent Environmental 2019). The proposed project includes the use of mechanical thinning, mastication, and chipping over approximately 112 acres of vegetation to create necessary fuelbreaks and reduce fuel loads along Tecuya Ridge. Mechanical vegetation treatments would require the use of one masticator mounted on a large (D7-size undercarriage) feller buncher, one midsize (D4-size undercarriage) track-mounted masticator, and one skid steer. In addition, one wheeled chipper may be used. Mechanical treatments are anticipated to occur over a span of 20 to 25 working days and would require a crew of three to five members.

MANUAL VEGETATION TREATMENT

Manual treatments would include the use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous or woody species (Ascent Environmental 2019). Proposed manual treatments include limbing selected trees to reduce ladder fuels on trees over approximately 112 acres along Tecuya Ridge. Manual treatments would require the use of chainsaws, poler pruners, and blowers over a span of 5 to 10 working days. Manual treatments would require a crew of five to seven members.

PRESCRIBED BURNING

Prescribed burning includes the burning of piles of vegetative material to reduce fuel and/or remove biomass following treatment (Ascent Environmental 2019). The proposed project includes approximately 5 acres of burning hand-piled vegetation accumulated from mechanical and manual treatments as a method of biomass disposal. In order to minimize or avoid potential hazards associated with prescribed burning, all prescribed burning activities would be conducted under specific conditions related to fuels, weather, and other variables.

PROJECT DESIGN FEATURES

The following proposed Project Design Features (PDFs) are elements of the proposed project that would be implemented in proposed treatment areas (adapted from USDA 2012, 2019):

General Provisions for Heavy Equipment

1. Heavy equipment shall not operate:
    A. In any Watercourse and Lake Protection Zone (WLPZ), Special Treatment Zone (STZ), or Equipment Exclusion Zone (EEZ);
        a. Excavators, heel-boom loaders, feller bunchers, or any equipment with a boom may reach into the above restricted areas.

i. If using this exception, material may not be dragged out of the restricted area.

B. On unstable areas, as identified and flagged by the RPF;

C. On any paved or chip-sealed surface, with the exception that heavy equipment with rubber tracks or excavators with street pads may operate on such surfaces;

a. The contractor shall be responsible for damage to surfaced roads resulting from heavy equipment use.

b. The contractor shall be responsible for watering and grading dirt or rocked roads that have been impacted by the contractor's actions. Such roads shall be returned to their original condition.

D. On saturated soils as defined in 14 California Code of Regulations (CCR) Section 895.1 (shown here for reference):

"Saturated Soil Conditions means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during Timber Operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials."

E. Outside of the project boundary.

F. On slopes over 45 percent.

G. In any other area identified for heavy equipment exclusion, including WLPZs.

2. Leaking equipment shall not be allowed into the project area. If, during the course of operations, a leak is discovered, the machine shall stop and the leak shall be contained and fixed immediately. Operations shall not resume until the leak has been fixed. The contractor shall remove and dispose of any contaminated soil.

3. Care shall be taken to avoid damage to trees determined to remain within the stand (leave trees). It is acceptable for some areas to remain untreated if treatment is likely to result in excessive damage to leave trees.

4. Erosion Control

A. On linear areas of bare soil that have been exposed by operations, and that may concentrate and redirect runoff, waterbars or other appropriate erosion control structures (waterbreaks) shall be installed to the following specifications:

a. The spacing of waterbreaks shall comply with the standards specified in the following table (from 14 CCR Section 954.6(c)).

b. Waterbars shall be cut at least 6 inches deep and the berm shall be at least 6 inches high, at an angle of approximately 35 degrees.

c. Waterbreaks shall be constructed such that water will discharge onto durable surfaces that will disperse runoff or dissipate the energy of the runoff. If a conflict arises between waterbreak spacing guidelines and discharge placement, discharge placement shall take priority.

d. Any waterbreak that will not function appropriately, as determined by the contract administrator, shall be reconstructed at no additional cost to the California Department of Forestry and Fire Protection [CAL FIRE].

B. Additional erosion control measures may be implemented as determined by the RPF or contract administrator.

C. Erosion control measures shall be implemented between October 15 and May 1, prior to sunset if the National Weather Service forecast predicts a 30% or greater chance of rain within the next 24 hours.

5. Heavy equipment operation shall cease if the activity generates a significant amount of dust that impedes visibility or air quality outside of the project area.

Mastication

6. Equipment
   A. Any machine that falls under the general category of "masticators" and is capable of completing the work as specified is acceptable, including but not limited to skid-steer masticators, boom-mounted masticating heads, and tracked machines.
   B. Boom-mounted masticating heads may be used to remove trees where such application is feasible, provided the end result meets the minimum standard described under "Mechanical Falling" below.
7. Standards
   A. Mulch residue shall be no more than 4 inches deep.
   B. Minimum dimensions of residual material shall be as follows:
      a. No less than 100% of residual material shall be less than 36 inches in any dimension.
      b. No less than 90% of residual material shall be less than 18 inches in any dimension.
      c. No less than 60% of residual material shall be less than 12 inches in any dimension.
      d. No less than 40% of residual material shall be less than 8 inches in any dimension.
   C. Brush stobs shall be less than 2 inches in height.
8. Provisions
   A. Mastication shall be suspended during red flag warnings or any other time where the operation of the machine presents an elevated risk of starting a fire.

General Provisions for Piling

9. 90% of all slash and organic debris exceeding 24 inches in length and 3 inches in diameter shall be piled for burning.
10. 90% of live or dead brush shall be cut or uprooted, crushed, and piled for burning.
11. Jeffrey pine and white fir seedlings will be protected where feasible.
12. Material longer than will safely or prudently fit into a pile shall be cut to such a length that it may be piled and burned safely.

13. Piles shall be constructed in such a manner as to avoid damaging leave trees during burning, and in such a location that the nearest edge of the pile is no less than 15 feet from the dripline of the nearest leave tree, and no less than 15 feet from the nearest drainage, WLPZ, STZ, or project boundary, and no less than 30 feet from any snag.
    A. Any pile that will result in damage to leave trees upon burning, as judged by the RPF or contract administrator, shall be dismantled and masticated or chipped.
14. Piles shall be 90% free of soil. Piles that contain excessive soil, as determined by the RPF or contract administrator, shall be dismantled and re-piled. Excess soil shall be dispersed over the area adjacent to the pile.
15. Piles shall be approximately equal in length and width, and the height shall be at least half of the diameter.
16. Material that hangs out of the edge of the pile greater than 6 feet shall be cut off and added to the pile.
17. Piles shall be constructed such that logs or any other material will not roll downhill during pile construction and pile burning.
18. Control lines may be established around piles if deemed necessary by the RPF. Control lines shall be no less than 6 feet wide and cleared down to bare mineral soil.
19. The contractor shall create the smallest number of piles while maintaining compliance with the provisions described above.
20. Reasonable care shall be taken to retain as much ground cover as feasible for the purpose of preventing erosion.

Mechanical Piling

21. Equipment
    A. Bladed equipment that will be used to push material into a pile shall be equipped with a brush rake, the teeth of which shall extend no less than 6 inches below the lowest portion of the blade.
    B. Excavators shall be equipped with a bucket (with teeth) and a thumb, or a brush grapple.
    C. Skid steers, excavators, bulldozers, heel-boom loaders, or any other machine capable of completing the work to the specifications described under "General Provisions for Piling" will be acceptable for mechanical piling.

General Provisions for Falling

22. Trees that have been marked with a horizontal stripe of paint shall be felled and removed.
23. Trees greater than 10 inches DBH that do not have a horizontal stripe of blue paint are leave trees and are not to be cut, damaged, injured, disturbed, or put at risk of same by poor pile location.
24. Stumps shall be less than 6 inches high measured on the uphill side.
    A. Stump heights between 6 and 8 inches are acceptable where conditions preclude a stump height of less than 6 inches. In no case shall more than 10% of stumps be 6 inches or taller.

25. No tree shall be felled into any protective zone, including, but not limited to, WLPZs, STZs, any watercourse channel, or felled in such a manner as to endanger property. Trees shall be felled in such a manner as to minimize damage to leave trees.
26. Any tree that has "hung up" shall be immediately addressed and made safe by the contractor. "Hung up" means that, after the cut, the bole of the tree is not on the ground. If there is any delay in mitigating a hang-up, the contractor shall notify all crews and personnel working in the area and flag off the area.

Mechanical Falling

27. In areas where heavy equipment is allowed to operate, feller bunchers or other machines capable of falling trees to the specifications above may be used.
28. Mechanical falling shall be suspended during red flag warnings or any other time where the operation of the machine presents an elevated risk of starting a fire.

Log Disposal

29. Felled trees shall generally be hauled out of the fuelbreak. Removal may be to a disposal site or to an area outside of the fuelbreak.
    A. If CEQA requirements are satisfied by a timber harvest document, or if the contractor undertakes any activity that constitutes Timber Operations as defined in the Z'Berg-Nejedly Forest Practice Act Section 4527, California Forest Practice Rules shall be followed.
30. Slash and tops shall be masticated, chipped, or piled for burning pursuant to "General Provisions for Piling" above.
31. Logs that are in such a state of decay that they cannot be removed may be masticated, chipped, or piled and burned.

Flagging Code

32. Project Boundary: Pink
33. Watercourse and Lake Protection Zone: Blue and white stripe with "Watercourse and Lake Protection Zone" black print
34. Equipment Exclusion Zone: Yellow and white stripe with "Equipment Exclusion Zone" black print
35. Special Treatment Zone: Orange and white stripe with "Special Treatment Zone" black print
36. Hazard Tree: Solid orange with "Killer Tree" black print and skull-and-bones symbol

Restricted Areas

37. Watercourse and Lake Protection Zone (WLPZ)
    A. Heavy equipment entry is limited to the running surface of a road within the WLPZ.
    B. Piles shall not be constructed in the WLPZ.
    C. Refueling or servicing of any motorized equipment shall not occur in the WLPZ.
    D. Vegetation or trees shall not be removed from the bed, bank, or channel of any watercourse.

E. Trees felled within the WLPZ shall be felled away from the watercourse.

38. Equipment Exclusion Zone (EEZ)
    A. Heavy equipment entry is limited to the running surface of a road within the EEZ.
    B. Vegetation or trees shall not be removed from the bed, bank, or channel of any watercourse.
    C. Refueling or servicing of any motorized equipment shall not occur near the bed, bank, or channel of any watercourse.
39. Special Treatment Zone (STZ)
    A. Site specific at the discretion of the RPF.

Fuels

40. Maintain the existing system of roadside fuelbreaks and fuelbreaks along watershed boundaries to minimize fire size and the number of communities threatened by both fires and floods. When feasible, construct new fuelbreaks on land outside of wilderness or other special designations.
41. Consider an opportunistic approach to fuels management. Take advantage of wildland fire occurrence and wherever possible, connect wildland fires to forest health and wildlife habitat improvement projects, as well as fuelbreaks to maintain multiple lines of community defense and to minimize future wildland fire patch size.
42. Thinning to reduce canopy cover is generally recommended to minimize crown fire hazard. The reduction in crown fire potential provides for the increased success of fire suppression. This reduces the risk to firefighters and the public in a suppression action. The decrease in crown fire potential also allows fire managers to use more tools in suppression efforts.
43. The reduction in the potential for crown fire reduces the likelihood of reduced forest health. The risk of losing forest structure and continuity is high in large severe burning fires that produce crown fire. Forest diversity is also lost in large landscape fires that burn at high intensity.
44. Lowering flame lengths decreases the likelihood that there would be crown fire initiation. Lowering flame lengths increases the ability to actively suppress fires effectively during a severe fire season. Using hand crews is the most effective way to attack wildfires; hand crews are generally not effective with flame lengths over 4 feet in height. The activities proposed reduce the flame lengths in treatment units, so hand crews can be utilized.
45. To reduce the threat of spotting distance from firebrands (spotting potential), fuels would need to be reduced both near and at some distance from the wildland-urban interface (WUI). Implementation of vegetation treatments would result in decreasing the behavior of a wildland fire and would increase the likelihood that fire suppression efforts would be successful in containing fires at a small size.
46. Create fuelbreaks wide enough to allow fire operations to effectively mitigate the high to extreme fire behavior characteristics in those areas that have medium to high fuel load shrub species.
47. Dead and down material left after treatment should be less than 10 tons per acre in the forested treatment areas where available.

48. Brush species would be reduced by up to 85% to 95% and may include feathering of treatment for visual concerns. Feather the edges of the fuelbreak by selectively removing random brush species along the edge to create a mixed vegetative area or zone to soften harsh edges.
49. All prescribed fire activities will occur with approvals from the San Joaquin Valley Air Pollution Control District (SJVAPCD) and under conditions established in an approved Prescribed Fire Burn Plan.

Botany and Wildlife

50. LMP-S11: When occupied or suitable habitat for a threatened, endangered, proposed, candidate, or sensitive (TEPCS) species is present on an ongoing or proposed project site, consider species guidance documents (see LMP, Part 3, Appendix H) to develop project-specific or activity-specific design criteria. This guidance is intended to provide a range of possible conservation measures that may be selectively applied during site-specific planning to avoid, minimize, or mitigate negative long-term effects on threatened, endangered, proposed, candidate, or sensitive species and habitat. Involve appropriate resource specialists in the identification of relevant design criteria. Include review of species guidance documents in fire suppression or other emergency actions when and to the extent practicable.
51. LMP-S12: When implementing new projects in areas that provide for threatened, endangered, proposed, and candidate species, use design criteria and conservation practices (see LMP, Part 3, Appendix H) so that discretionary uses and facilities promote the conservation and recovery of these species and their habitats. Accept short-term impacts where long-term effects would provide a net benefit for the species and its habitat where needed to achieve multiple-use objectives.
52. LMP-S24: Mitigate impacts of on-going uses and management activities on threatened, endangered, proposed, and candidate species.
53. LMP-S32: When surveys for species presence/absence are done for threatened, endangered, and proposed species, use established survey protocols, where such protocols exist.

Botany

54. Sensitive plant surveys/monitoring would occur prior to project activities.

Wildlife

55. LMP-S14: Where available and within the capability of the site, retain a minimum of six downed logs per acre (minimum 12 inches diameter and 120 total linear feet) and 10 to 15 hard snags per 5 acres (minimum 16 inches DBH and 40 feet tall, or next largest available). Exception allowed in WUI Defense Zones, fuelbreaks, and where they pose a safety hazard.
56. LMP–S15: Within riparian conservation areas, retain snags and downed logs unless they are identified as a threat to life, property, or sustainability of the riparian conservation area.
57. LMP-S17: In areas outside of WUI Defense Zones and fuelbreaks, retain soft snags and acorn storage trees unless they are a safety hazard, fire threat, or impediment operability.

58. LMP-S18: Protect known active and inactive raptor nest areas. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging.
59. LMP-S19: Protect all spotted owl territories identified in the Statewide California Department of Fish and Wildlife (CDFW) database (numbered owl sites) and new sites that meet the state criteria by maintaining or enhancing habitat conditions over the long term to the greatest extent practicable while protecting life and property. Use management guidelines in the species conservation strategy (or subsequent species guidance document; see LMP, Part 3, Appendix H) to further evaluate protection needs for projects, uses and activities.
60. LMP-S20: Maintain a limited operating period (LOP) prohibiting activities within approximately 0.25 mile of a California spotted owl (*Strix occidentalis*) nest site, or activity center where nest site is unknown, during the breeding season (February 1–August 15), unless surveys confirm that the owls are not nesting. Follow the USFS (1993, 1994 or subsequent) protocol to determine whether owls are nesting. The LOP does not apply to existing road and trail use and maintenance, use of existing developed recreation sites, or existing special-uses, such as recreation residence tracts. When evaluating the need to implement an LOP, site- and project-specific factors need to be considered (use species management strategy or subsequent guidance; see LMP, Part 3, Appendix H).
61. LMP-S28: Avoid or minimize disturbance to breeding and roosting California condors (*Gymnogyps californianus*) by prohibiting or restricting management activities and human uses within 1.5 miles of active California condor nest sites and within 0.5 mile of active roosts. Refer to California condor species account (or subsequent species guidance document; see LMP, Part 3, Appendix H) for additional guidance.
62. Avoid rocky outcrops with mechanical treatments.
63. Trash associated with this project will be removed and properly disposed of. A forest wildlife biologist or designee will brief all personnel involved in implementing the project on the importance of not leaving hazardous materials exposed and daily removal of all garbage fragments to maintain condor health. Garbage removal will be stipulated in mechanical brush treatment contracts.
64. Workers will undergo "hazing" training pursuant to the September 3, 2014, California Condor Recovery Program memo. If any California condors are attracted to work sites, the hazing measures will be implemented to avoid the possibility that the birds will become habituated to human activities, which poses a risk to their well-being.
65. Active goshawk nest stands (30 acres) would be avoided during project implementation. The LOP for goshawk within post-fledgling family area is March 1 through September 30. Treatments would only occur during the non-breeding season of October 1 through February 28 if goshawks are found and determined to be nesting within the project area.

Silviculture

66. In all treatments, all live and dead trees posing a safety hazard to management activities or to the public will be removed within the treated areas.
67. In all units, as soon as possible, and no longer than 24 hours after tree cutting, all activity-created fir and Jeffrey pine tree stumps greater or equal to 16 inches in diameter would be treated with a borax compound to inhibit the spread of annosus root disease.

68. All black oak (*Quercus velutina*) will be left unless they are deemed a hazard tree or if removal is needed for operations.

Recreation

69. Where there is a safety concern for recreationists, implement temporary closures in the project area. Ensure that sufficient public and internal notice is provided prior to those closures.
70. Throughout the duration of the project, communicate with the recreational staff to coordinate closures and/or consultation for privacy screening or potential off-highway vehicle (OHV) trespass during implementation.

Heritage

71. Post-implementation survey of areas with heavy brush cover will occur.
72. All know sites will be flagged with a 30-meter buffer and avoided prior to implementation, and the project manager will be notified of their location for protection measures.
73. No pile burning would occur within site boundaries.
74. Trees near the boundary of cultural resources would be felled away from sites, so sensitive features and artifacts are not damaged by falling trees or the activity required in removing them.
75. If unanticipated resources are discovered during project implementation, all work will stop in the vicinity until cleared by a professional cultural resources manager.

Soils and Watershed

76. Designate season of use to avoid or restrict road use during periods when use would likely damage the roadway surface or road drainage features. (National Best Management Practice [BMP] Road-4. Road Operations and Maintenance).
77. Use suitable measures to avoid or minimize adverse effects to soil and watershed resources when proposed operations involve use of roads by traffic and during periods for which the road was not designed. (National BMP Road-4. Road Operations and Maintenance).
78. Refueling of equipment and storage of fuel and other hazardous materials will not occur within riparian conservation areas (perennial and seasonal streams, seeps, springs, and meadows). When landings are located within riparian conservation areas, refueling will occur outside riparian conservation areas in an approved refueling area. Storage of any quantity of fuel greater than 100 gallons will require a California Engineer Spill Plan (National BMP Road-10. Equipment Refueling and Servicing).
79. Landing locations should be located outside of riparian conservation areas where possible, unless infeasible due to topography. Landings within riparian conservation areas may occur where there is existing disturbance (instead of constructing a new one); such landings will require special protective measures as specified by an earth scientist or biologist. (National BMP Veg-2. Erosion Prevention and Control).
80. Do not permit use of mechanical equipment on slopes greater than 35 percent or on steeper slopes with short pitches (National BMP Veg-2. Erosion Prevention and Control).

81. Operate equipment when soil compaction, displacement, erosion, and sediment runoff would be minimized. (National BMP Veg-2. Erosion Prevention and Control).
82. Avoid ground equipment operations on unstable, wet, or easily compacted soils unless operation can be conducted without causing excessive rutting, soil puddling, or runoff of sediments directly into waterbodies.
83. Riparian conservation areas will be 100 meters (328 feet) on perennial streams, or 30 meters (98 feet) on intermittent streams, measured as the slope distance from either bank of the channel. Other special aquatic features, such as wetlands, seeps and springs, also have 100-meter riparian conservation areas (National BMP Veg-3. Aquatic Management Zones).
84. No self-propelled ground-skidding equipment is allowed within the riparian conservation areas (exceptions would require input by an earth scientist and/or biologist as described in standard S47 and Appendix E of the Forest Plan).
85. There will be no removal of riparian plant species.
86. Within riparian conservation areas, retain snags and downed logs to the extent possible. Exceptions would be made if snags and logs are identified as a threat to life, property, or sustainability of riparian conservation areas (S15, LMP Part 3, p. 6) (National BMP Veg-3. Aquatic Management Zones).
87. Firelines constructed for project implementation will be rehabilitated following project implementation (prescribed burn). Rehabilitation on the fireline includes pulling back and spreading out berms and spreading of bush and ground cover across the fireline. (National BMP Fire-2. Use of Prescribed Fire).
88. Water bars or leadout ditches may be constructed in firelines to minimize erosion. Water bars or leadout ditches will be installed according to the following recommended minimum intervals (National BMP Fire-2. Use of Prescribed Fire).

Recommended Minimum Interval Guidelines for the Installation of Water Bars

Fireline Gradient (% slope)	Distance Between Water-Bars (feet/chains)	
0 to 5	no water-bars needed	no water bars needed
6 to 15	200	3
16 to 30	100	1.5
31 to 49	75	1
> 50	50	0.5

In addition, the proposed project would implement applicable CalVTP SPRs, which are further described in individual resources sections included in *Section 4, Project Specific Analysis,* and included as Appendix A.

3 ENVIRONMENTAL CHECKLIST

Vegetation Treatment Project Information

1. Project Title: Tecuya Ridge Shaded Fuelbreak Project
2. Project Proponent's Name and Address: Kern County Fire Department
   5642 Victor Street
   Bakersfield, CA 93308
3. Contact Person Information and Phone Number: Andrew Kennison
   660.330.0194
   akennison@kerncountyfire.org
4. Project Location: Kern County
   (see Section 2, *Project Description*, and Figure 1)
5. Total Area to be Treated (Acres): 165 acres
6. Description of Project
   a. Initial Treatment

      Initial treatments would include fuelbreak treatments by manual and mechanical treatment methods. Disposal methods include prescribed burns, mastication, and lop and scatter. See Section 2, *Project Description*.

   Treatment Types

   ☐ Wildland-Urban Interface Fuel Reduction

   ☒ Fuel Break

   ☐ Ecological Restoration

   Treatment Activities

   ☐ Prescribed Burning (Broadcast)

   ☒ Prescribed Burning (Pile Burning)

   ☒ Mechanical Treatment, 112 acres

   ☒ Manual Treatment, 112 acres

   ☐ Prescribed Herbivory

   ☐ Herbicide Application

   Fuel Type

   ☐ Grass Fuel Type

   ☒ Shrub Fuel Type

   ☒ Tree Fuel Type

   b. Treatment Maintenance

      Treatment maintenance methods would involve the same vegetation treatment activities used in the original treatment, including mechanical treatment, manual treatment, and prescribed burning.

Maintenance treatments would include similar equipment and would be required approximately 10 years after initial treatments. Treatment maintenance activities would be subject to the identified PDFs and CalVTP SPRs.

7. Regional Setting and Surrounding Land Uses:

   The proposed project consists of fuel reduction treatments over approximately 165 acres of private land to create a variable-width, shaded fuelbreak along a portion of Tecuya Ridge, which overlooks the unincorporated community of Lake of the Woods (see Figure 1).

8. Other Public Agencies Whose Approval is Required (e.g., permits):

   Coastal Act Compliance

   ☒ The proposed project is NOT within the Coastal Zone

   ☐ The proposed project is within the Coastal Zone (check one of the following boxes)

   ☐ A coastal development permit been applied for or obtained from the local Coastal Commission district office or local government with a certified Local Coastal Plan, as applicable

   ☐ The local Coastal Commission district office or local government with a certified Local Coastal Plan (in consultation with the local Coastal Commission district office) has determined that a coastal development permit is not required

9. Native American Consultation. *For treatment projects that are within the scope of the CalVTP PEIR, Assembly Bill (AB) 52 consultation for AB 52 compliance has been completed. The Board of Forestry and Fire Protection conducted consultation pursuant to Public Resources Code Section 21080.3.1 during preparation of the PEIR. For treatment projects with impacts not within the scope of the PEIR, pursuant to Public Resources Code Sections 21080.3.1, 21080.3.2, and 21082.3, project partners preparing a new negative declaration, mitigated negative declaration, or EIR must notify any California Native American tribe who has submitted written request for notification of a project in the area of the treatment site. Upon written request for consultation by a tribe, the project partners must begin consultation before the release of the environmental document and must follow the requirements of the cited Public Resources Code sections.*

   The proposed project is within the scope of the PEIR; therefore, Assembly Bill (AB) 52 compliance has been completed. Pursuant to CalVTP SPR CUL-2, the project proponent would be required to obtain the latest Native American Heritage Commission (NAHC)-provided Native Americans Contact List to notify the California Native American Tribes in Kern County prior to project implementation.

Environmental Determination

On the basis of this PSA and the substantial evidence supporting it:

☒ I find that all of the effects of the proposed project (a) have been covered in the CalVTP PEIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP PEIR will be implemented. The proposed project is, therefore, WITHIN THE SCOPE of the CalVTP PEIR. NO ADDITIONAL CEQA DOCUMENTATION is required.

☐ I find that the proposed project will have effects that were not covered in the CalVTP PEIR. These effects are less than significant without any mitigation beyond what is already required pursuant to the CalVTP PEIR. A NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project will have effects that were not covered in the CalVTP PEIR or will have effects that are substantially more severe than those covered in the CalVTP PEIR. Although these effects may be significant in the absence of additional mitigation beyond the CalVTP PEIR's measures, revisions to the proposed project or additional mitigation measures have been agreed to by the project partners that would avoid or reduce the effects so that clearly no significant effects would occur. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project will have significant environmental effects that are (a) new and were not covered in the CalVTP PEIR and/or (b) substantially more severe than those covered in the CalVTP PEIR. Because one or more effects may be significant and cannot be clearly mitigated to less than significant, an ENVIRONMENTAL IMPACT REPORT will be prepared.

Andrew Kennison — 2.9.22

Signature — **Date**

Andrew Kennison — Division Chief, Kern County Fire.

Printed Name — **Title**

4 PROJECT-SPECIFIC ANALYSIS

4.1 Aesthetics and Visual Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact AES-1: Result in Short- Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	LTS	Impact AES-1 pages 3.2-16 to 3.2-19	Yes	AES-2 AQ-2 AQ-3 REC-1	NA	LTS	No	Yes
Impact AES-2: Result in Long- Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Wildland Urban Interface Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2 pages 3.2-20 to 3.2-22	Yes	AES-1 AES-3	NA	LTS	No	Yes
Impact AES-3: Result in Long- Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Nonshaded Fuel Break Treatment Type	SU	Impact AES-3 pages 3.2-25 to 3.2-27	No	--	--	--	--	--

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Aesthetic and Visual Resources Impacts: Would the treatment result in other impacts to aesthetics and visual resources that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
	☐	☐	☐

Discussion

IMPACT AES-1

The proposed project area is located along Tecuya Ridge, overlooking the unincorporated community of Lake of Woods in Kern County. The proposed project area is accessed by Tecuya Ridge Road from Frazier Mountain Park Road. Tecuya Ridge Road is a private, gated road and is not anticipated to provide a public viewing area of the proposed project. There are some driving and hiking routes through Tecuya Mountain and surrounding areas, which may provide public viewing areas of the proposed treatment areas. There are no designated or eligible scenic highways in the vicinity of the proposed project. The nearest designated scenic highway is State Route (SR) 33, located approximately 25 miles southwest of the proposed project area (California Department of Transportation [Caltrans] 2022). The proposed project includes manual and mechanical treatment activities, as well as prescribed burning. Consistent with the evaluation of this impact in the PEIR, proposed manual treatments activities, mechanical treatment activities, and prescribed burning would result in the short-term presence of large trucks and mechanical equipment that could contrast with the natural environment. However, with implementation of PDFs and SPRs, visibility of proposed treatments would be temporary, would not dominate or impede any views from scenic vistas or scenic highways, and would not introduce a new feature to the landscape. PDF 70, included in Section 2, *Project Description*, would require coordination with nearby recreational staff for privacy screening. Additionally, the PEIR includes SPRs to reduce public visibility of equipment and vehicles. SPR AES-2 would require equipment storage and staging areas to be located outside of viewsheds from public trails, parks, recreation areas, and roadways, as feasible. SPR REC-1 requires coordination with local agencies to notify the public prior to any prescribed burning activities within or near public recreation areas to afford potential viewers the choice to avoid treatment areas. In addition, SPRs AQ-2 and AQ-3 would minimize smoke emissions from prescribed burns that may be visible to the public. Manual and mechanical treatment activities and prescribed burning activities would be temporary in nature and would be minimized from public viewing areas; therefore, project-specific impacts would be less than significant, which is consistent with the PEIR.

IMPACT AES-2

Implementation of the proposed project would result in strategically located shaded fuelbreaks created through vegetation removal and thinning to reduce existing fuel loads between stands. Consistent with analysis included for this impact in the PEIR, proposed vegetation treatments would not require all vegetation to be cleared and large healthy trees would remain at the discretion of the RPF; therefore, vividness, intactness, and unity of views would likely remain high, and the proposed project would not permanently affect views from a scenic vista or from a designated scenic highway. PDFs 3, 11, and 68, included in Section 2, *Project Description*, would reduce the potential for leave trees to be damaged during proposed treatment activities. In addition, SPRs AES-1 and AES-3 would require vegetation treatment projects to break up or screen linear edges of a clearing, achieve a natural transitional appearance, and screen views from public areas, as feasible. Therefore, project-specific impacts would be less than significant, which is consistent with the level of impact examined in the PEIR.

IMPACT AES-3

Impact AES-3 does not apply because the proposed project does not include implementation of a non-shaded fuelbreak.

NEW AESTHETIC AND VISUAL RESOURCE IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.2.1, *Environmental Setting*, and Section 3.2.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific characteristics of proposed treatment activities are consistent with the analysis and conclusions in Section 3.2.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to aesthetics and visual resources would occur that are not covered in the PEIR.

4.2 Agriculture and Forestry Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact AG-1: Directly Result in the Loss of Forest Land or Conversion of Forest Land to a Non-Forest Use or Involve Other Changes in the Existing Environment Which, Due to Their Location or Nature, Could Result in Conversion of Forest Land to Non-Forest Use	LTS	Impact AG-1 pages 3.3-7 to 3.3-8	Yes	NA	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Agriculture and Forestry Resources Impacts: Would the treatment result in other impacts to agriculture and forestry resources that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT AG-1

Pursuant to Public Resources Code (PRC) Section 12220(g), forest land is defined as land that can support 10% native tree cover of any species under natural conditions. The proposed project area consists of approximately 165 acres of overcrowded piñon pine, Jeffrey pine, and white fir stands. As a result of overcrowding, the proposed project area has experienced bark beetle invasion and resource competition, which has led to an increase in tree mortality and risk of wildfire. Consistent with the evaluation included for this impact in the PEIR, the proposed project would result in modification of treatable landscape through tree removal and thinning within a forested area. Trees would be removed at the discretion of the RPF but would generally consist of dead or dying trees. The proposed project would retain healthy trees within proposed treatment areas. Additionally, PDFs 3, 11, and 68, included in Section 2, *Project Description*, would reduce the potential for leave trees to be damaged during proposed treatment activities. Following treatment activities, the proposed project area would continue to support more than 10% of native tree cover per PRC Section 12220(g). Therefore, the proposed project would not directly

result in the loss of forest land, convert forest land to a non-forest use, or involve other changes in the existing environment that could result in conversion of forest land to non-forest use. Project-specific impacts would be less than significant, which is consistent with the PEIR. Therefore, the proposed project would not constitute a new or more severe impact than what was evaluated in the PEIR.

NEW AGRICULTURE AND FORESTRY RESOURCE IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.3.1, *Environmental Setting*, and Section 3.3.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific characteristics of proposed treatment activities are consistent with the analysis and conclusions in Section 3.3.3, *Impact Analysis and Mitigation Measures*, of the PEIR. Implementation of the proposed project would not result in the loss or conversion of forestland. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to agriculture and forestry resources would occur.

4.3 Air Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	SU	Impact AQ-1 pages 3.4-26 to 3.4-32 Appendix AQ-1	Yes	AQ-1 AQ-2 AQ-3 AQ-4 AQ-6 AD-4	AQ-1	LTSM	No	Yes
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	LTS	Impacts AQ-2 pages 3.4-33 to 3.4-34	Yes	AQ-1 HAZ-1 NOI-4 NOI-5	AQ-1	LTS	No	Yes
Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	NA	Impact AQ-3 pages 3.4-34 to 3.4-35	No	--	--	--	--	--
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	PSU	Impact AQ-4 pages 3.4-35 to 3.4-37	Yes	AQ-2 AQ-6 AD-4	NA	LTS	No	Yes
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5 pages 3.4-37 to 3.4-38	Yes	AQ-1 HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	PSU	Impact AQ-6 pages 3.4-36	Yes	AQ-2 AQ-6 AD-4	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Air Quality Impacts: Would the treatment result in other impacts to air quality that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
	☐	☐	☐

Discussion

IMPACT AQ-1

The proposed project is located in the San Joaquin Valley Air Basin, which is in state non-attainment for ozone, and particulate matter less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$) and federal non-attainment for ozone and $PM_{2.5}$ (SJVAPCD 2022). The use of heavy vehicles and equipment during vegetation treatments and smoke emissions from prescribed burning would likely result in criteria pollutant (i.e., ozone, carbon monoxide [CO], nitrogen dioxide [NO_2], sulfur dioxide [SO_2], PM_{10}, $PM_{2.5}$, and lead) and ozone precursor emissions (reactive organic gases [ROG] and nitrogen oxides [NOx]). Criteria air pollutant emissions and precursor emissions have the potential to exceed SJVAPCD emission thresholds and contribute to the nonattainment status with respect to the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS) in one or more air basins. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the PEIR.

Mechanical and Manual Treatments

Mechanical treatments would require the use of one masticator mounted on a large feller buncher, one mid-size track-mounted masticator, one skid steer, and one wheeled chipper and a crew of three to five members. Manual treatments would consist of limbing of ladder fuels and would require the use of chainsaws, pole pruners, and blowers and a crew of five to seven members. The scope of the proposed project is consistent with the scope of the PEIR in regard to crew sizes and equipment use. However, the proposed project area is approximately 165 acres in size, which is less than the geographical scope (250,000 acres per year) evaluated in the PEIR. There is potential for the proposed project to generate ROG and NOx emissions from equipment and vehicle use and PM_{10} and $PM_{2.5}$ emissions from crew transport along unpaved roadways. PDF 5, included in Section 2, *Project Description*, requires cessation of heavy equipment use if excessive dust occurs. In addition, the PEIR includes SPRs to further reduce the potential for excessive emissions to result from proposed treatment activities. SPR AQ-1 requires project compliance with all applicable SJVAPCD air quality requirements. SPR AQ-4 would limit vehicle speeds on unpaved roads, require treatment crews to wet unpaved roads if excessive dust is created during road use, require that vehicles be cleaned prior to leaving treatment sites to reduce the inadvertent transport of dust from unpaved areas onto paved roads, and require the suspension of ground-disturbing activities when they result in visible dust transport outside the boundary of treatment areas. Implementation of SPRs AQ-1 and AQ-4 would reduce potential criteria pollutant emissions, including PM_{10} and $PM_{2.5}$ emissions during proposed treatment activities. In addition, PEIR Mitigation Measure AQ-1 would require implementation of on-road vehicle and off-road equipment exhaust emission reduction techniques during treatment activities to further reduce criteria air pollutant and ozone precursor emissions. With implementation of PDFs, SPRs, and mitigation measures to reduce criteria air pollutants, project-specific impacts related to vehicle and equipment use would be less than significant with mitigation.

Prescribed Burns

Prescribed burning is one of the proposed methods of biomass disposal following proposed mechanical and manual treatment activities. Other disposal methods include chipping and lop and scatter. Prescribed burns would only be conducted on permissive burn days as identified by the SJVAPCD. The scope of the proposed project is consistent with the scope of the PEIR in regard to crew sizes and equipment use; however, the scope of the PEIR includes a larger geographical area than the proposed project. It is anticipated that smoke from prescribed burning activities has the potential to generate $PM_{2.5}$ and CO emissions. In addition, associated equipment and vehicle use has the potential to result in criteria pollutant and ozone precursor emissions, as described above. PDFs, SPRs AQ-1 and AQ-4, and PEIR Mitigation Measure AQ-1 (see Appendix A) would be implemented during proposed treatment activities to reduce criteria air pollutant and precursor emissions from vehicle and equipment use.

PDFs 9 through 20, included in Section 2, *Project Description*, would be implemented to control and reduce the potential for excessive smoke to occur as a result of prescribed burns. In addition, the proposed project would be required to comply with SPRs included in the PEIR. SPR AQ-2 requires burn managers to submit and obtain approval for their Smoke Management Plans, which would aim to reduce public exposure to smoke. SPR AQ-3 requires preparation of a burn plan that includes the date, location, and description of the area in detail; prescriptive weather requirements; fire behavior modeling; the ignition plan; a contingency plan; the Smoke Management Plan; a public notification plan; a go/no-go checklist; and contact information for the burn boss and others in charge of the prescribed burn. SPR AQ-6 requires prescribed burns to be conducted in accordance with all CAL FIRE safety procedures. SPR AD-4 requires adequate public noticing and signage about prescribed burns, including timing, contact information, and description of the activity to reduce public exposure to short-term increases in criteria pollutants. The proposed project would also be subject to permissive burn day requirements identified by the SJVAPCD to avoid risk of excessive smoke emissions as a result of weather conditions. Due to the smaller scale of proposed prescribed burning activities and implementation of PDFs, SPRs, and mitigation measures to reduce vehicle and smoke emissions, project-specific impacts would be less than significant with mitigation.

Conclusion

Although this impact was considered significant and unavoidable in the PEIR, due to the smaller scale of proposed activities and implementation of measures to reduce criteria air pollutants, project-specific impacts would be less than significant with mitigation. Proposed project activities are not anticipated to exceed established SJVAPCD, NAAQS, or CAAQS thresholds, which is consistent with emission reduction strategies and air quality plans adopted by the SJVAPCD. Therefore, project-specific impacts would be less than significant with mitigation, and no new or more severe impacts would occur as a result of implementation of the proposed project.

IMPACT AQ-2

There is one permanent residence and one part-time residence located within the proposed project area. The nearest off-site sensitive receptors consist of private residences in the unincorporated community of Lake of the Woods, located approximately 0.7 mile south of the proposed project area. The PEIR evaluates the potential for proposed activities to expose sensitive receptors to substantial short- and long-term diesel particulate matter (DPM) emissions in a manner that could increase cancer risk greater than 10 in one million to a Hazard Index of 1.0 or greater. Consistent with the evaluation included in the PEIR, the proposed project would require the use of heavy vehicles and equipment and crew transportation, which would increase DPM emissions at the proposed project site. However, proposed treatment activities are not anticipated to expose sensitive receptors to substantial DPM emissions because

treatment activities would progress across treatment sites; therefore, DPM emissions generated by treatment activities would not take place near any single sensitive receptor for an extended period. In addition, treatment activities would be short-term and intermittent and would not result in a new long-term source of DPM emissions in the proposed project area.

SPRs and mitigation measures were included in the PEIR to further reduce the potential for public exposure to DPM emissions during proposed activities. SPR HAZ-1 requires that all diesel- and gasoline-powered equipment be properly maintained to comply with all federal and state emissions requirements, which would prevent excessive emissions of DPM due to poorly functioning equipment. SPR NOI-4 requires vegetation treatment activities and staging areas be located as far as possible from human receptors and SPR NOI-5 restricts equipment idling time. SPR AQ-1 requires project compliance with all applicable SJVAPCD air quality requirements. Since the proposed project is not anticipated to expose people to substantial DPM emissions and implementation of SPRs would further reduce potential exposure, further mitigation would not be necessary; however, PEIR Mitigation Measure AQ-1 would further reduce potential impacts through the implementation of on-road vehicle and off-road equipment exhaust emission reduction techniques during treatment activities. Since proposed treatment activities would be short term and intermittent and would not expose any single sensitive receptor to DPM emissions for an extended period of time, proposed treatment activities would not expose any person to an incremental increase in cancer risk associated with DPM emissions greater than 10 in one million to a Hazard Index of 1.0 or greater, and impacts would be less than significant. Implementation of SPRs HAZ-1, NOI-4, NOI-5, and AQ-1 and PEIR Mitigation Measure AQ-1 would further reduce the potential for substantial exposure to any sensitive receptor. Therefore, impacts would be less than significant, which is consistent with the determination of the PEIR, and no new or more severe impacts would occur.

IMPACT AQ-3

According to the California Geological Survey (CGS) Reported Historic Asbestos Mines, Historic Asbestos Prospects, and other Natural Occurrences of Asbestos in California Map, the nearest mapped asbestos occurrence is a former asbestos prospect located approximately 10 miles west of the proposed project area in the San Emigdio Mountains. There are no other mapped occurrences of asbestos, including former asbestos mines, reported asbestos occurrences, asbestos-bearing talc-deposits, or ultramafic rock outcrops, located within or in the vicinity of the proposed project area (CGS 2011a, 2011b). The proposed project does not include the demolition of any buildings or structures that may contain asbestos-containing material (ACM). There are no occurrences of naturally occurring asbestos (NOA) within the proposed treatment areas; therefore, this impact does not apply to the proposed project.

IMPACT AQ-4

The proposed project includes prescribed burning as one method of biomass disposal. Proposed treatment areas would be limited to private lands. The proposed project does not include broadcast burning. The PEIR evaluates the potential for smoke generated by prescribed burns to result in the short-term exposure of people to concentrations of toxic air contaminants (TACs), including $PM_{2.5}$. The proposed project is within the scope of the PEIR because proposed prescribed burning activities have the potential to expose the public to TACs.

PDFs 9 through 20, included in Section 2, *Project Description*, would be implemented to control and reduce the potential for excessive smoke to occur as a result of prescribed burns. Further, the PEIR includes SPRs designed to reduce public exposure to TACs from prescribed burning, as feasible. SPR AQ-6 requires prescribed burns conducted by non-CAL FIRE crews to follow all CAL FIRE safety procedures. SPR AD-4 requires adequate public notice and signage regarding prescribed burns, including timing, contact information, and description of the activity to alert the public to take precautionary

measures. SPR AQ-2 requires burn managers to submit and obtain approval for each Smoke Management Plan, which would identify the public in the vicinity of the proposed project and specify the prescription to reduce smoke exposure. Prescribed burns would be implemented in accordance with CAL FIRE safety precautions; however, there is potential for weather or other factors to exacerbate fire or smoke. The proposed project would be subject to permissive burn day requirements established by the SJVAPCD to reduce the potential for weather conditions to exacerbate burns.

Due to the large geographical scope of the PEIR, this impact was considered significant and unavoidable. The treatment area associated with the proposed project encompasses approximately 165 acres of land and prescribed burns would be limited to approximately 5 acres of biomass disposal. The proposed project would conduct prescribed burns on SJVAPCD permissive burn days to reduce the potential for weather or other uncontrollable conditions to exacerbate fire risk. In addition, the proposed project would be subject to PDFs and SPRs to reduce public exposure to TACs from prescribed burns. Proposed prescribed burning activities are not anticipated to result in significant public exposure to smoke because safety precautions would be in place to reduce the risk of unplanned fire or smoke from limited prescribed burning activities; therefore, project-specific impacts would be less than significant. No new or more severe significant impacts would occur as a result of the proposed project.

IMPACT AQ-5

As described in Impact AQ-2, the use of diesel-powered equipment has the potential to expose people to objectionable odors from diesel exhaust. Consistent with the PEIR, diesel exhaust emissions from the proposed project would be short term and intermittent, would progress across treatment sites such that odors from diesel exhaust would not be generated in a single location for an extended period, and would dissipate rapidly from the source. Therefore, the proposed project is not anticipated to expose people to odors from diesel exhaust. Additionally, SPRs have been included to further reduce the potential for exposure to substantial diesel exhaust emissions, including SPRs HAZ-1, NOI-4, NOI-5, and AQ-1, as described in Impact AQ-2. Therefore, project-specific impacts would be less than significant, which is consistent with the determination of the PEIR. No new or more severe impacts would occur.

IMPACT AQ-6

The proposed project includes prescribed burning as one method of biomass disposal and has the potential to expose people to objectionable odors from smoke during prescribed burning. The scope of the PEIR includes the treatable landscape throughout the state; therefore, this impact area was considered a potentially significant and unavoidable impact because prescribed burns could result in the short-term exposure of a substantial number of people to odorous smoke. The proposed treatment area encompasses approximately 165 acres of private lands approximately 0.7 mile away from the nearest sensitive receptors; therefore, prescribed burns would not occur within or directly adjacent to public areas. Due to the nature of smoke, there is potential for the proposed project to temporarily expose people within the community of Lake of the Woods or other surrounding private landowners to odorous smoke. PDFs 9 through 20, included in Section 2, *Project Description*, would be implemented to control and reduce the potential for excessive smoke to occur as a result of prescribed burns. Additionally, SPRs included in the PEIR would further reduce public exposure to smoke, as feasible, including SPRs AQ-2, AQ-6, and AD-4, as described in Impact AQ-4. The proposed project would also be subject to permissive burn day requirements established by the SJVAPCD to reduce potential for weather or other uncontrollable conditions to exacerbate prescribed burns and generate excessive smoke than intended in the Smoke Management Plan prepared for the proposed project per SPR AQ-2. Although the PEIR classifies this impact as potentially significant and unavoidable, project-specific impacts would be less than significant due to implementation of PDFs, SPRs, and required compliance with SJVAPCD requirements. No new or more significant impacts would occur as a result of the proposed project.

NEW AIR QUALITY IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.4.1, *Environmental Setting*, and Section 3.4.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impacts AQ-2 and AQ-5 are consistent with the analysis and conclusions in Section 3.4.3, *Impact Analysis and Mitigation Measures*, of the PEIR. Impact AQ-3 is not applicable to the proposed project because the proposed project area is not located in an area with NOA. Impacts AQ-4 and AQ-6 would be less than significant due to required compliance with the SJVAPCD permissive burn day requirements and the limited amount of prescribed burning activities. Impact AQ-1 would be less than significant with mitigation. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to air quality would occur.

4.4 Archaeological, Historical, and Tribal Cultural Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources	LTS	Impact CUL-1 pages 3.5-14 to 3.5-15	Yes	CUL-1 CUL-7 CUL-8	NA	LTS	No	Yes
Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources	SU	Impact CUL-2 pages 3-5.15 to 3.5-16	Yes	CUL-1 CUL-2 CUL-3 CUL-4 CUL-5 CUL-8	CUL-2	LTSM	No	Yes
Impact CUL-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource	LTS	Impact CUL-3 page 3.5-17	Yes	CUL-1 CUL-2 CUL-3 CUL-4 CUL-5 CUL-6 CUL-8	NA	LTS	No	Yes
Impact CUL-4: Disturb Human Remains	LTS	Impact CUL-4 page 3.5-18	Yes	NA	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Archaeological, Historical, and Tribal Cultural Resources Impacts: Would the treatment result in other impacts to archaeological, historical, and tribal cultural resources that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT CUL-1

The proposed project area is located in a rural, forested area with limited developed areas; however, based on the size of proposed treatment areas, there is potential for unknown built historical resources to be located within or near the proposed treatment areas. As evaluated in the PEIR, proposed vegetation treatment activities may occur in areas that contain built historical resources. Proposed treatment activities have the potential to result in damage to any built historical resources that may be located within or near the treatment area. The PEIR includes SPRs to reduce the potential for vegetation treatments to damage built historical resources that may be located within proposed treatment areas through identification, avoidance, and protection of resources during proposed activities. SPR CUL-1 requires the proposed project to obtain a recent records search for historical resources within the proposed project area. SPR CUL-7 requires the avoidance of any known built historical resources and the avoidance of built environment structures that have not yet been evaluated for historical significance. SPR CUL-8 requires that workers be trained regarding protection of historical resources and that work be halted in the event of a find. Therefore, project-specific impacts related to built historical resources would be less than significant. The proposed project would be consistent with the evaluation and determinations included in the PEIR, and no new or more severe impacts would occur.

IMPACT CUL-2

The proposed project area is located in a rural, forested area and is primarily undeveloped. There is potential for unknown archaeological or subsurface historical resources to be located within or near the proposed treatment areas. Consistent with the evaluation included the PEIR, proposed vegetation treatment activities may result in inadvertent soil disturbance, including churning or compaction, as a result of vehicle and equipment movement and tree removal. Soil disturbance has the potential to result in damage to archaeological and/or subsurface historical resources if located within or near the treatment area.

PDFs 71 through 75, included in Section 2, *Project Description*, would be implemented to ensure avoidance and protection of archaeological resources present within the proposed project area. The PEIR also includes SPRs and mitigation measures to reduce the potential for proposed vegetation treatments to damage known and/or unknown buried archaeological resources. SPR CUL-1 requires a recent records search for archaeological and subsurface historical resources that may be present within the proposed project area. SPR CUL-2 requires coordination with geographically associated Native American tribe(s) to identify locations of any known unique archaeological or subsurface historical resources and areas where there is a high likelihood of finding these types of resources and require avoidance of these resources. SPR CUL-3 requires pre-field research to become familiar with the area and potential resources, and SPR CUL-4 requires an archaeological survey of the treatment area to identify known or unknown archaeological resources. In the event of a resource discovery, SPR CUL-5 requires that a qualified archaeologist notify culturally affiliated tribe(s), evaluate the significance of the find, and coordinate with tribe(s) and other agencies as necessary to develop protection measures for identified resources. SPR CUL-8 requires worker awareness training and that treatment activities be halted if archaeological materials are discovered. In addition, PEIR Mitigation Measure CUL-2 (see Appendix A) requires the protection of inadvertently discovered unique archaeological and/or subsurface historical resources by halting work within 100 feet of the find, evaluating the significance of the find, and developing effective protection strategies in coordination with applicable agencies.

The scope of the PEIR considers this impact to be significant and unavoidable based on the large geographical scope, which increases the likelihood for unknown resources to be present within treatment

areas, and the wide variety of resource types present throughout the state. The proposed project covers a much smaller project area, which reduces the likelihood for unknown resources to be present within the proposed project area; therefore, following implementation of PDFs, SPRs, and PEIR Mitigation Measure CUL-2, project-specific impacts would be less than significant with mitigation due to avoidance and protection of archaeological resources within the proposed project area. Therefore, the proposed project would not constitute a more severe significant impact than what was evaluated in the PEIR.

IMPACT CUL-3

Proposed treatment activities have the potential to damage tribal cultural resources if present within or near the proposed treatment area. PDFs 71 through 75, included in Section 2, *Project Description*, would be implemented to ensure avoidance and protection of archaeological resources present within the proposed project area. SPRs have been included in the PEIR to avoid or minimize the potential to disturb tribal cultural resources that may be present within the proposed project area, including SPRs CUL-1 through CUL-5 and CUL-8, as described in Impact CUL-2. In addition, SPR CUL-6 requires ongoing coordination with affiliated tribe(s) to develop effective protection strategies for any tribal cultural resources discovered during proposed activities. PEIR Mitigation Measure CUL-2 (see Appendix A) would be implemented to reduce potential impacts related to subsurface archaeological resources, which would further reduce the potential to disturb tribal cultural resources if present in the proposed project area. Implementation of PDFs and SPRs CUL-1 through CUL-6 and CUL-8 would avoid or reduce the potential to disturb tribal cultural resources that may be present within proposed treatment areas through identification, avoidance, and protection. Therefore, the proposed project would have a less-than-significant impact related to tribal cultural resources, which is consistent with the determination of the PEIR.

IMPACT CUL-4

As described in the PEIR, there is potential to uncover Native American or other human remains throughout California. Additionally, there is a possibility that unmarked, previously unknown Native American or other graves, including those interred outside formal cemeteries, could be present within the treatable landscape. Therefore, there is potential for proposed ground-disturbing vegetation treatments to uncover previously unknown human remains. Consistent with the PEIR, the proposed project would be subject to California Health and Safety Code 7050.5 and 7052 and PRC Section 5097, which identifies and requires the appropriate treatment of inadvertently discovered human remains. Therefore, project-specific impacts would be less than significant, which is consistent with the PEIR. No new or more severe impacts would occur.

NEW ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.5.1, *Environmental Setting*, and Section 3.5.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impacts CUL-1, CUL-3, and CUL-4 would be consistent with the analysis and the determination included in the PEIR. Impact CUL-2 would be less than significant with mitigation because archaeological resources would be avoided and protected during implementation of the proposed project. The proposed project would not result in any new or more severe significant impacts than what is covered in Section 3.5.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities.

4.5 Biological Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTSM	Impact BIO-1 pages 3.6-131 to 3.6-138	Yes	BIO-1 BIO-2 BIO-6 BIO-7 BIO-9	BIO-1a BIO-1b BIO-1c	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTSM (all wildlife species except bumble bees) SU (bumble bees)	Impact BIO-2 pages 3.6-138 to 3.6-184	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-10 BIO-12 HAZ-5 HYD-1 HYD-4	BIO-2a BIO-2b BIO-2c BIO-2e BIO-3a BIO-3b BIO-3c BIO-4	LTSM	No	Yes
Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation That Leads to Loss of Habitat Function	LTSM	Impact BIO-3 pages 3.6-186 to 3.6-191	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-6 BIO-9 HYD-4	BIO-3a BIO-3b BIO-3c	LTSM	No	Yes
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTSM	Impact BIO-4 pages 3.6-191 to 3.6-192	Yes	BIO-1 HYD-1 HYD-4	BIO-4	LTSM	No	Yes
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTSM	Impact BIO-5 pages 3.6-198 to 3.6-199	Yes	BIO-1 BIO-4 BIO-10 BIO-12 HYD-1 HYD-4	BIO-5	LTSM	No	Yes
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	LTS	Impact BIO-6 pages 3.6-192 to 3.6-196	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-12	NA	LTS	No	Yes

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	NI	Impact BIO-7 pages 3.6-198 to 3.6-199	Yes	AD-3	NA	NI	No	Yes
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	NI	Impact BIO-8 pages 3.6-199 to 3.6-200	No	--	--	--	--	--

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Biological Resources Impacts: Would the treatment result in other impacts to biological resources that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

The proposed project area encompasses approximately 165 acres of land along Tecuya Ridge, which overlooks the unincorporated community of Lake of the Woods. Average temperatures in the proposed project area range from a low of 38 degrees Fahrenheit (ºF) to a high of 68ºF (U.S. Climate Data 2022). Elevations within the proposed project area range from approximately 6,100 feet to 6,900 feet above mean sea level. The proposed project area is dominated by piñon pine, Jeffrey pine, and white fir forests. Surrounding forest areas consist of mixed conifer, piñon pine, and scrub habitats (USDA 2019). Based on a desktop-level review of the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Surface Waters and Wetlands mapper, there is a 1.21-acre freshwater/forested shrub wetland, a 0.49-acre freshwater emergent wetland, and several riverine features mapped within the proposed project area. Based on a search of the CDFW California Natural Diversity Database (CNDDB), surface water features within the proposed project area occur along the Cold Spring OHV road and are also located along portions of Tecuya Mountain Road (USFWS 2022a; CDFW 2022).

Based on a desktop-level review of the USFWS Information for Planning and Consultation (IPaC) database and a 9-quadrangle query of the CDFW CNDDB, three special-status plant species and 18 special-status wildlife species have the potential to occur in the proposed project area (USWFS 2022b;

CDFW 2022). There is no designated critical habitat mapped within or adjacent to the proposed project area (USFWS 2022b). Table 4.5-1 identifies special-status plant and wildlife species that have the potential to occur in the proposed project area and the likelihood of occurrence.

Table 4.5-1. Species with the Potential to Occur in the Project Area

Common Name	Listing Status[1]			General Habitat Description	Potential for Occurrence
	Federal	State	CRPR		
Special-Status Plants					
Kern mallow *Eremalche parryi* ssp. *kernensis*	FE	--	1.B.2	Habitats typically include chenopod scrub, piñon and juniper woodlands, and valley and foothill grassland. Occurs at elevations between 200 and 5,000 feet (Los Padres Forest Watch [LPFW] 2013b).	**Not likely to occur.** This species is not anticipated to occur within the proposed project area because the proposed project area is outside the suitable elevation range for this species. The nearest recorded occurrence is approximately 11 miles northwest from the project area (CNDDB Occ. 149).
Bakersfield cactus *Opuntia basilaris* var. *treleasei*	FE	SE	1.B.1	Habitats typically include chenopod scrub, cismontane woodland, and valley and foothill grassland. Occurs at elevations between 460 to 1,800 feet (USFWS 1990).	**Not likely to occur.** This species is not anticipated to occur within the proposed project area because the proposed project area is outside the suitable elevation range for this species. The nearest recorded occurrence is approximately 9 miles northeast from the project area (CNDDB Occ. 75).
Tracy's eriastrum *Eriastrum trayci*	--	SR	3.2	Habitats typically include chaparral, cismontane woodland, and valley and foothill grassland. Occurs at elevations between 249 to 7,822 feet (California Native Plant Society [CNPS] 2022).	**May occur.** There is potential for this species to occur within the proposed project area due to the presence of potentially suitable habitat within the appropriate elevation range for this species. The nearest recorded occurrence is approximately 9 miles east from the project area (CNDDB Occ. 96).
Special-Status Wildlife					
Amphibians					
Tehachapi slender salamander *Batrachoseps stebbinsi*	--	ST	--	Occurs in cismontane woodland and riparian woodland at elevations between 2,000 and 4,600 feet (California Herps 2022d).	**Not likely to occur.** This species is not anticipated to occur due to the elevations at the proposed project site, which range from 6,100 feet to 6,900 feet. The nearest recorded occurrence is approximately 5 miles northeast from the project area (CNDDB Occ. 19).
foothill yellow-legged frog *Rana boylii*	--	SE	--	Typically occurs in aquatic, chapparal, cismontane woodland, coastal scrub, lower montane coniferous forest, flowing water, and riparian habitats up to 6,000 feet (California Herps 2022b).	**May occur.** There is potential for this species to occur within the proposed project area due to the presence of forest and wetland habitat. The nearest recorded occurrence is approximately 9 miles southeast from the project area (CNDDB Occ. 2,416).

Common Name	Listing Status[1]			General Habitat Description	Potential for Occurrence
	Federal	State	CRPR		
California red-legged frog *Rana draytonii*	FT	--	--	Typically occurs in aquatic, chapparal, cismontane woodland, coastal scrub, lower montane coniferous forest, flowing water, and riparian habitats up to 5,000 feet (USFWS 2017b).	**Not likely to occur.** This species is not anticipated to occur due to the high elevations within the proposed project area, which range from 6,100 to 6,900 feet. The nearest recorded occurrence is approximately 34 miles southeast from the project area (CNDDB Occ. 1,288).
Reptiles					
arroyo toad *Anaxyrus californicus*	FE	--	--	Typically found in desert wash, riparian scrub, riparian woodland, and south coast flowing and standing waters at elevations up to 8,000 feet; however, typical elevations include 1,000 to 3,280 feet (California Herps 2022a).	**May occur.** There is potential for this species to occur near surface water or wetland features within the proposed project area. However, the potential for occurrence is low due to the high elevations at the site. The nearest recorded occurrence is approximately 12 miles southeast from the project area (CNDDB Occ. 17).
southern rubber boa *Charina umbratica*	--	ST	--	Typically occurs in meadow and seep, riparian forest, riparian woodland, upper montane coniferous forest, and wetland habitats at elevations between 5,000 to 8,200 feet (California Herps 2022c).	**Likely to occur.** There is potential for this species to occur due to its elevation range and the presence of suitable forest habitat within the proposed project area. The nearest recorded occurrence is within the proposed project area (CNDDB Occ. 33, 37, 96).
blunt-nosed leopard lizard *Gambelia sila*	FE	SE	--	Typically occurs in chenopod scrub. Absent from areas of steep slope, dense vegetation, or areas subject to seasonal flooding (USFWS 2017a).	Not likely to occur. This species is not anticipated to occur within the proposed project area due to the steep slopes and dense vegetation within the proposed project area. The nearest recorded occurrence is approximately 5 miles northeast from the project area (CNDDB Occ. 430).
green sea turtle *Chelonia mydas*	FT	--	--	Habitat typically includes shallow marine habitats (USFWS 2018).	**Not likely to occur.** This species is not anticipated to occur within the proposed project area due to the lack of marine habitat. The nearest recorded occurrence is approximately 91 miles southwest from the project area (CNDDB Occ. 2).
Invertebrates					
conservancy fairy shrimp *Branchinecta conservatio*	FE	--	--	Typically occurs in valley and foothill grassland, vernal pool, and wetland habitats at elevations between 16 and 5,577 feet (LPFW 2013a).	**Not likely to occur.** This species is not anticipated to occur due to the elevations at the proposed project site, which range from 6,100 feet to 6,900 feet, and the lack of vernal pools in the proposed project area. The nearest recorded occurrence is approximately 1.4 miles southwest from the project area (CNDDB Occ. 46).

Common Name	Listing Status[1]			General Habitat Description	Potential for Occurrence
	Federal	State	CRPR		
vernal pool fairy shrimp *Branchinecta lynchi*	FT	--	--	Typically occurs in valley and foothill grassland, vernal pool, and wetland habitats at elevations between 16 and 5,577 feet (LPFW 2013a).	**Not likely to occur.** This species is not anticipated to occur due to the elevations at the proposed project site, which range from 6,100 feet to 6,900 feet, and the lack of vernal pools in the proposed project area. The nearest recorded occurrence is approximately 14 miles south from the project area (CNDDB Occ. 178).
monarch butterfly – California overwintering population *Danaus plexippus* pop. 1	FC	--	--	Typically occurs in closed cone coniferous forests.	**May occur.** There is potential for this species to occur within the proposed project area due to the presence of suitable habitat. The nearest recorded occurrence is approximately 39 miles north from the project area (CNDDB Occ. 199).
Birds					
tricolored blackbird *Agelaius tricolor*	--	ST	--	Suitable habitat includes freshwater marsh, marshes and swamps, and wetlands in lower elevations up to approximately 2,000 feet (USFWS 2019).	**Not likely to occur.** This species is not anticipated to occur in the proposed project area because the proposed project area is not within the appropriate elevation range for this species and does not support suitable aquatic habitat. The nearest recorded occurrence is approximately 8 miles east from the project area (CNDDB Occ. 454).
California condor *Gymnogyps californianus*	FE	SE	--	Typically occurs in chaparral and valley and foothill grassland habitats.	**May occur.** Based on the migratory nature of this species, there is some potential for occurrence within the proposed project area; however, due to the lack of chaparral and grassland habitat the potential is very low. The nearest recorded occurrence is approximately 17 miles northeast from the project area (CNDDB Occ. 2).
bald eagle *Haliaeetus leucocephalus*	FD	SE	--	Typically occurs in lower montane coniferous forests and old growth forests.	**May occur.** This species may occur within the proposed project area due to the presence of suitable forest habitat. The nearest recorded occurrence is approximately 8 miles northeast from the project area (CNDDB Occ. 257).
coastal California gnatcatcher *Polioptila californica californica*	FT	--	--	Typically occurs in coastal bluff and coastal scrub habitats.	**Not likely to occur.** This species is not anticipated to occur due to the lack of coastal bluff and coastal scrub habitat within the proposed project area. The nearest recorded occurrence is approximately 12 miles southeast from the project area (CNDDB Occ. 858).

Common Name	Listing Status[1]			General Habitat Description	Potential for Occurrence
	Federal	State	CRPR		
Mammals					
Nelson's antelope squirrel *Ammospermophilus nelsoni*	--	ST	--	Typically found in desert and chenopod scrub habitats at elevations between 164 feet and 3,609 feet (Animal Diversity Web 2012).	**Not likely to occur.** This species is not anticipated to occur within the proposed project area because the proposed project area is not within the appropriate elevation range and does not support desert habitat. The nearest recorded occurrence is approximately 9 miles northeast from the project area (CNDDB Occ. 75).
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	FE	SE	--	Typically occurs in chenopod scrub at elevations up to 300 feet (City of Bakersfield 2022).	**Not likely to occur.** This species is not anticipated to occur due to the elevations at the proposed project site, which range from 6,100 feet to 6,900 feet. The nearest recorded occurrence is approximately 9 miles northeast from the project area (CNDDB Occ. 95).
San Joaquin kit fox *Vulpes macrotis mutica*	FE	ST	--	Occurs in open chenopod scrub and valley and foothill grassland habitats of valley floor and surrounding foothills in Kern County (LPFW 2013c).	**Not likely to occur.** This species is not anticipated to occur due to the lack of open valley floor and foothill grassland habitats. The nearest recorded occurrence is approximately 7 miles northeast from the project area (CNDDB Occ. 719).
giant kangaroo rat *Dipodomys ingens*	FE	SE	--	Typically occurs in desert chenopod scrub and valley and foothill grassland habitats. Not typically found in areas with steep slopes, dense shrubs, or rocks (Animal Diversity Web 1999).	**May occur.** This species has some potential to occur in open scrub habitats in surrounding areas; however, presence is unlikely due to the presence of steep slopes and dense vegetation within the proposed project area. The nearest recorded occurrence is approximately 24 miles northwest from the project area (CNDDB Occ. 218).

Source: CDFW (2022); USFWS (2022b); Calflora (2022)

[1] Legal Status Definitions

Federal: FE = Federally Endangered (legally protected); FT = Federally Threatened (legally protected); FD = Federally Delisted; FC = Federal Candidate

State: SE = State Endangered (legally protected); ST = State Threatened; SR = State Rare (legally protected by Native Plant Protection Act [NPPA])

California Rare Plant Ranks (CRPR):
1B = Plants rare, threatened, or endangered in California and elsewhere;
3 = Review List: Plants about which more information is needed

CRPR Threat Ranks:
_.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
_.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

IMPACT BIO-1

Based on desktop-level review, there is potential for Tracy's eriastrum (*Eriastrum tracyi*), a state-listed rare species, to occur within the proposed project area (CDFW 2022). The proposed project includes manual treatments, mechanical treatments, and prescribed burning to create a shaded fuelbreak. As

evaluated in the PEIR, vegetation removal, prescribed burns, and heavy vehicle and equipment use have the potential to disturb special-status plants if present within the proposed project area.

PDFs 50 through 54, included in Section 2, *Project Description*, would be implemented to reduce the potential for proposed treatment activities to result in direct impacts to special-status plant species or to result in habitat modification. The PEIR also includes SPRs and mitigation measures to avoid the loss of special-status plant species. SPR BIO-1 requires data review and reconnaissance surveys to identify potential habitat for and previously documented occurrences of special-status plants. SPR BIO-2 requires biological resource training for workers to make them aware of the presence of special-status plants and the mitigation measures, work practices, and laws and regulations that protect these plants. SPR BIO-7 requires surveys for special-status plants be conducted if they have potential to occur in a treatment area. SPR BIO-9 requires BMPs be implemented to prevent the spread of invasive plants and noxious weeds that could have indirect adverse effects on special-status plants through competition for resources and habitat degradation. The proposed project would be subject to focused plant surveys during the appropriate blooming period for Tracy's eriastrum (June and July) per SPRs BIO-1 and BIO-7 prior to the start of any vegetation treatments. In addition, PEIR Mitigation Measures BIO-1a and BIO-1b require the avoidance of any individuals of this species through implementation of a minimum 50-foot no-disturbance buffer, which would be delineated on-site through flagging, fencing, or staking. In the event avoidance is not feasible, PEIR Mitigation Measure BIO-1c requires the preparation and implementation of a compensatory mitigation program for the proposed project for the species. Therefore, project-specific impacts related to special-status plant species would be less than significant with mitigation, which is consistent with the determination of the PEIR. No new or more severe impacts would occur as a result of the proposed project.

IMPACT BIO-2

The PEIR evaluates the potential for implementation of CalVTP vegetation treatments throughout the state to substantially affect special-status wildlife species. Based on the large geographical scope of the PEIR, this impact is considered potentially significant. As described in Table 4.5-1, there is potential for southern rubber boa (*Charina umbratical*) and foothill yellow-legged frog (*Rana boylii*) and low potential for giant kangaroo rat (*Dipodomys ingens*), arroyo toad (*Anaxyrus californicus*), California condor, and bald eagle to occur within the proposed project area. Implementation of proposed vegetation treatments may impact special-status wildlife species if present within the proposed treatment area through habitat modification, vehicle and equipment use, and/or noise disturbance. PDFs 1, 2, 3, 4, 11, 25, 37 through 39, 50 through 53, 55 through 65, 68, and 76 through 88 have been included for the proposed project to ensure protection of special-status wildlife and their habitats. Additionally, the PEIR includes SPRs and mitigation measures to avoid and/or minimize potential impacts to special-status wildlife species that may occur throughout the CalVTP treatable landscape, which includes the proposed project area.

Special Status Reptiles and Amphibians

There is potential for southern rubber boa and foothill yellow-legged frog and low potential for arroyo toad and blunt-nosed leopard lizard (*Gambelia sila*) to occur within the proposed project area. Ground disturbance and vehicle and equipment use may result in take of these species if present within proposed treatment areas, and vegetation removal may result in loss of habitat for this species. PDFs 1, 2, 4, 25, 37 through 39, 50 through 53, 55 through 65, and 76 through 88, included in Section 2, *Project Description*, would be implemented during proposed treatment activities to minimize disturbance to special-status species, to avoid work within WLPZs and other exclusion areas that may provide habitat for special-status species, and to reduce the potential for erosion or hazardous spills to disturb special-status species present within the proposed project area. Additionally, the PEIR includes SPRs and mitigation measures to avoid or minimize impacts to special-status reptiles and amphibians. SPR BIO-1 requires data review and

reconnaissance surveys to identify potential habitat for, and previously documented occurrences of, special-status wildlife. SPR BIO-2 requires biological resource training for workers to make them aware of the presence of special-status wildlife and the mitigation measures, work practices, and laws and regulations that protect wildlife. SPRs BIO-3 and BIO-4 would be implemented to avoid work in habitat for special-status reptile and/or amphibian species. SPR BIO-3 requires site-specific surveys to identify and map the limits of sensitive natural communities and other sensitive habitats using standard field protocols. SPR BIO-4 requires treatments be designed to avoid loss or degradation of riparian habitat functions and values. SPR BIO-10 would require surveys for nursery sites. SPR HAZ-5 requires the preparation of a Spill Prevention and Response Plan and requires a spill kit to be maintained on-site. SPR HYD-1 requires the proposed project to comply with all state and regional water quality regulations, including conditions of waste discharge requirement waivers that are applicable to fuel reduction and fire prevention activities. SPR HYD-4 requires identification and protection of WLPZs. Additionally, SPR HYD-4 requires equipment to be fueled and serviced outside of WLPZs and wet areas. Additionally, PEIR Mitigation Measures BIO-2a and BIO-2b require the avoidance of special-status wildlife species identified as occurring within the proposed project area. PEIR Mitigation Measure BIO-2c requires compensation for the loss of any special-status wildlife species, as applicable. PEIR Mitigation Measure BIO-3a would reduce potentially significant impacts on sensitive natural communities and oak woodlands that may provide habitat to identified wildlife species by requiring treatment activities be designed to avoid loss of sensitive natural communities, to the extent feasible. In the event avoidance of sensitive natural communities or riparian habitat is not feasible, PEIR Mitigation Measures BIO-3b and BIO-3c require compensation. PEIR Mitigation Measure BIO-4 would reduce potentially significant impacts on federally and state-protected wetlands that may provide habitat to identified wildlife species by requiring clear delineation and avoidance of any wetlands identified within the proposed project area. Following implementation of identified SPRs and mitigation measures, project-specific impacts would be less than significant.

Special-Status Mammals

There is low potential for Nelson's antelope squirrel (*Ammospermophilus nelson*) and giant kangaroo rat to occur within the proposed project area. Ground disturbance and vehicle and equipment use may result in take of these species if present within proposed treatment areas. PDFs 1, 2, 4, 25, 37 through 39, 50 through 53, 55 through 65, and 76 through 88, included in Section 2, *Project Description*, would reduce potential impacts related to special-status wildlife species that may be present within the project area. PEIR SPRs applicable to Nelson's antelope squirrel include SPRs BIO-1 through BIO-4, BIO-10, HAZ-5, and HYD-4 and applicable mitigation measures include PEIR Mitigation Measures BIO-2a through BIO-2c and BIO-3a through BIO-3c, as described above. Following implementation of PDFs, SPRs, and mitigation measures, project-specific impacts would be less than significant.

Special-Status Birds

There is low potential for California condor and bald eagle to occur within the proposed project area. Proposed tree removal may directly disturb nesting birds if present within the proposed project area during implementation of proposed treatments or indirectly through habitat modification or noise disturbance. PDFs 1, 2, 4, 25, 37 through 39, 50 through 53, 55 through 65, and 76 through 88, included in Section 2, *Project Description*, would be implemented during proposed treatment activities to minimize disturbance to special-status species, to avoid work within WLPZs and other exclusion areas that may provide habitat for special-status species, and to reduce the potential for erosion or hazardous spills to disturb special-status species present within the proposed project area. PDFs 3, 11, and 68 would also ensure healthy leave trees remain within the landscape to provide long-term habitat for nesting birds. The PEIR also includes SPRs and mitigation measures to avoid or minimize impacts to special-status birds. Applicable SPRs include SPRs BIO-1 through BIO-4, BIO-10, HAZ-5, and HYD-4 and applicable

mitigation measures include PEIR Mitigation Measures BIO-2a through BIO-2c, BIO-3a through BIO-3c. Additionally, SPR BIO-12 has been included to require nesting bird surveys prior to treatment activities and implementation of feasible impact avoidance strategies (e.g., protective buffers, treatment modifications, raptor nest monitoring) to reduce the potential for disturbance during proposed treatment activities. Green trees identified by the RPF would remain following proposed treatment activities, which would maintain nesting bird habitat in the proposed project area. Following implementation of PDFs, SPRs, and mitigation measures, project-specific impacts would be less than significant.

Insects

There is potential for monarch butterfly (*Danaus plexippus*; California overwintering population) to occur within the proposed project area. Ground disturbance and vehicle and equipment use may result in direct impacts on this species, if present within proposed treatment areas, and indirect impacts in the form of habitat modification. PDFs 1, 2, 4, 25, 37 through 39, and 76 through 88, included in Section 2, *Project Description*, would reduce the potential for erosion or hazardous spills to disturb special-status species and potential habitat present within the proposed project area. The PEIR includes SPRs and mitigation measures to avoid or minimize impacts to special-status insects and their habitats. Applicable SPRs include SPRs BIO-1 through BIO-4, BIO-8, BIO-10, and HYD-4 and applicable mitigation measures include PEIR Mitigation Measures BIO-2a through BIO-2c, and BIO-3a through BIO-3c, as described above. In addition, PEIR Mitigation Measure BIO-2e requires the proposed project to be designed to retain special-status butterfly host plants. Following implementation of PDFs, SPRs, and mitigation measures, project-specific impacts would be less than significant.

Migratory Birds

Based on a query of the USFWS IpaC, there is potential for the following migratory birds to occur within the proposed project area: black-chinned sparrow (*Spizella atrogularis*), California thrasher (*Toxostoma redivivum*), Cassin's finch (*Haemorhous cassinii*), Lawrence's goldfinch (*Spinus lawrencei*), Nuttall's woodpecker (*Dryobates nuttallii*), oak titmouse (*Baeolophus inornatus*), olive-sided flycatcher (*Contopus cooperi*), and wrentit (*Chamaea fasciata*) (USFWS 2022b). Proposed tree removal may directly disturb nesting birds if present within the proposed project area during implementation of proposed treatments or indirectly through habitat loss or noise disturbance. SPR BIO-12 has been included to require nesting bird surveys prior to treatment activities and implementation of feasible impact avoidance strategies (e.g., protective buffers, treatment modifications, raptor nest monitoring) to reduce the potential for disturbance during proposed treatments. In addition, following treatment activities, designated leave trees would remain within the proposed treatment areas, which would continue to provide long-term nesting bird habitat. Therefore, project-specific impacts to nesting migratory birds would be less than significant.

Conclusion

Following implementation of PDFs, applicable SPRs, and mitigation measures, project-specific impacts to special-status wildlife species would be less than significant. Therefore, the proposed project is within the scope of the PEIR and would not result in any new or more severe impacts.

IMPACT BIO-3

The PEIR evaluates the potential for proposed vegetation treatments to result in the loss or degradation of sensitive habitats, including designated sensitive natural communities, riparian habitats, and oak woodlands. The proposed project area is dominated by piñon pine, Jeffrey pine, and white fire stands and does not support oak woodland habitats. Surrounding forest areas consist of mixed conifer, piñon pine, and scrub habitats (USDA 2019). There are surface water and wetland resources mapped within the

proposed project area that may support riparian habitat; however, a review of the CNDDB did not identify the potential for any special-status riparian plant species to occur within the proposed project area (USFWS 2022a; CDFW 2022). As evaluated in the PEIR, vegetation treatment activities could result in loss or degradation of sensitive habitats, including riparian habitats if present within the proposed project area, during implementation of proposed treatments.

PDFs 1, 2, 4, 25, 37 through 39, and 76 through 88, included in Section 2, *Project Description*, would be implemented during proposed treatment activities to avoid work within WLPZs and other exclusion areas and to reduce the potential for erosion or hazardous spills to disturb sensitive communities within the proposed project area. In addition, SPRs and mitigation measures have also been included in the PEIR to avoid the loss of riparian habitat. SPR BIO-1 requires data review and reconnaissance surveys to identify potential riparian or other sensitive habitats and sensitive natural communities, and SPR BIO-2 requires biological resource training for workers so they would learn to recognize sensitive natural communities and habitats and understand the SPRs, mitigation measures, BMPs, and laws and regulations that protect these resources. SPR BIO-3 requires site-specific surveys to identify and map the limits of sensitive natural communities and other sensitive habitats using standard field protocols. SPR BIO-4 requires treatments be designed to avoid loss or degradation of riparian habitat functions and values. SPR BIO-6 requires BMPs be implemented to prevent the spread of plant pathogens. SPR BIO-9 requires BMPs be implemented to prevent the spread of invasive plants and noxious weeds that could degrade the quality of sensitive habitats and sensitive natural communities. SPR HYD-4 requires identification and protection of WLPZs. PEIR Mitigation Measure BIO-3a would reduce potentially significant impacts on sensitive natural communities by requiring treatment activities be designed to avoid loss of sensitive natural communities, to the extent feasible. In the event avoidance of riparian habitat is not feasible, PEIR Mitigation Measure BIO-3c would minimize impacts to riparian vegetation by requiring that unavoidable losses of riparian habitat be offset by restoring riparian habitat values on-site, restoring degraded riparian habitat off-site, purchasing riparian habitat credits at a CDFW-approved mitigation bank, preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value in the treatment area. Therefore, project-specific impacts related to sensitive natural communities would be less than significant with mitigation, which is consistent with the determination of the PEIR.

IMPACT BIO-4

The USFWS NWI Surface Waters and Wetlands mapper identifies a 1.21-acre freshwater/forested shrub wetland, a 0.49-acre freshwater emergent wetland, and several riverine features within the proposed project area (USFWS 2022a). Consistent with the PEIR, project-specific treatment activities may result in the removal of wetland vegetation and/or alter wetland hydrology or topography resulting in loss or degradation of wetland function. PDFs 1, 2, 4, 25, 37 through 39, and 76 through 88, included in Section 2, *Project Description*, would be implemented during proposed treatment activities to avoid work within WLPZs and other exclusion areas and to reduce the potential for erosion or hazardous spills to enter wetland or surface water resources within the proposed project area. Additionally, SPRs and mitigation measures have been included in the PEIR to avoid the loss and/or degradation of wetland resources. Implementation of SPRs BIO-1 and HYD-4 require that potential wetlands be identified and protected prior to implementing treatments and SPR HYD-1 requires the protection of water quality. PEIR Mitigation Measure BIO-4 would reduce potentially significant impacts related to federally and state-protected wetlands by requiring clear delineation and avoidance of any wetlands identified within the proposed project area. With implementation of PDFs, SPRs, and mitigation measures included in the PEIR, project-specific impacts would be less than significant. Therefore, no new or more severe impacts would result from implementation of the proposed project.

IMPACT BIO-5

The proposed project area consists of forested lands that provide wildlife connectivity through the Sierra Nevada Foothills (CDFW 2022). The PEIR identifies the potential for proposed treatment activities to temporarily disturb wildlife movement through short-term presence of heavy vehicles and equipment, construction fencing, and construction-related noise. In addition, long-term impacts may result from removal or change in habitat structure that could modify nursery sites if present within the proposed project area. PDFs 1, 2, 4, 25, 37 through 39, and 76 through 88, included in Section 2, *Project Description*, would be implemented during proposed treatment activities to avoid work within WLPZs and other exclusion areas that may provide habitat for migratory wildlife species and would reduce the potential for erosion or hazardous spills to disturb wildlife species present within the proposed project area. PDFs 3, 11, and 68 would also ensure healthy leave trees remain in the landscape to provide long-term habitat for migratory species that may nest within the proposed project area. The PEIR also includes SPRs to reduce potential impacts to migratory aquatic or riparian species, including SPRs HYD-1, HYD-4, BIO-1, BIO-4, BIO-10, and BIO-12, which are described in Impacts BIO-2, BIO-3, and BIO-4. However, while implementation of SPRs would minimize impacts, treatment activities could still result in adverse effects on wildlife nurseries if these sites occur within proposed treatment areas or if habitats are not avoided or retained through implementation of the SPRs. PEIR Mitigation Measure BIO-5 requires avoidance of nursery sites that were identified through implementation of SPR BIO-10. With implementation of PDFs, SPRs, and mitigation measures, project-specific impacts would be less than significant. Therefore, the proposed project would be consistent with the PEIR, and no new or more severe impacts would result from implementation of the proposed project.

IMPACT BIO-6

The proposed project includes the removal of dead trees and understory vegetation to reduce fuel loads and create a shaded fuelbreak along a portion of Tecuya Ridge. Green trees identified by the RPF would remain within the treatment area following implementation of proposed treatment activities. The PEIR identifies the potential for proposed treatment activities to disturb breeding; remove or damage active nests, dens, and other breeding sites; kill or injure individuals; and temporarily reduce breeding productivity of these species. However, this impact is considered less than significant in the PEIR because individual treatments would be implemented within relatively small proportions of the extensive ranges of common species, and suitable habitat would remain available to these species across the broader landscape surrounding treatment areas. Therefore, the magnitude of these potential losses would not substantially reduce the overall abundance of any common wildlife species.

PDFs 1, 2, 3, 4, 11, 25, 37 through 39, 50 through 53, 55 through 65, 68, and 76 through 88, included in Section 2, *Project Description*, would be implemented during proposed treatment activities to avoid work within WLPZs and other exclusion areas that may provide habitat for wildlife species, reduce the potential for erosion or hazardous spills, ensure healthy leave trees remain within the landscape to provide long-term habitat for nesting birds and other nesting species, and reduce potential impacts related to wildlife species that may be present within the proposed treatment area. Additionally, SPRs have been included to avoid or minimize potential treatment-related disturbances to common wildlife. SPR BIO-2 would require crew members and contractors to receive training regarding minimizing disturbances to wildlife. Additionally, SPRs BIO-1, BIO-3, and BIO-4 have been included to identify special-status species habitat, sensitive natural communities, and riparian/wetland areas, which would reduce the likelihood of impacts to common species occurring within those habitats. If a treatment must occur during the nesting season of common native bird species, including raptors, SPR BIO-12 would require nesting bird surveys prior to treatment activities and implementation of feasible impact avoidance strategies (e.g., protective buffers, treatment modifications, raptor nest monitoring). Therefore, project-specific impacts

would be less than significant, which is consistent with the determination included for this impact in the PEIR.

IMPACT BIO-7

General Provisions Sections 1.10.5 and 1.10.6 included in the *Kern County General Plan Land Use, Open Space, and Conservation Element* require the protection of special-status species, riparian areas, and surface and groundwater resources in accordance with USFWS, U.S. Army Corps of Engineers (USACE), and CDFW requirements (Kern County 2009). SPR AD-3 requires treatments to be implemented in a manner that is consistent with applicable local plans, policies, and ordinances to the extent the proposed project is subject to them. PDFs 1, 2, 3, 4, 11, 25, 37 through 39, 50 through 65, 68, and 76 through 88, included in Section 2, *Project Description*, would be implemented to reduce impacts related to special-status species, riparian areas, and water resources. Further, SPRs BIO-1 through BIO-4, BIO-6 through BIO-12, HYD-1, HYD-4, and HAZ-5 and PEIR Mitigation Measures BIO-2a through BIO-2c, BIO-2e, BIO-3a through BIO-3c, BIO-4, and BIO-5, identified in Impacts BIO-1 through BIO-6, would be implemented to further protect special-status species, riparian areas, and water resources, which is consistent with the *Kern County General Plan*. With implementation of PDFs, SPRs, and mitigation measures, no impact would occur, which is consistent with the determination of the PEIR.

IMPACT BIO-8

This impact does not apply to the proposed project because the treatment areas are not within an adopted habitat conservation plan or natural community conservation plan.

NEW BIOLOGICAL RESOURCES IMPACTS

Proposed treatment areas are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.6.1, *Environmental Setting*, and Section 3.6.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impacts BIO-1, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7 would be consistent with the analysis and the determinations included in the PEIR. Impact BIO-2 would be less than significant with mitigation because special-status wildlife species would be avoided and/or compensated for as applicable during implementation of the proposed project. Impact BIO-8 does not apply to the proposed project because the proposed treatment area is not within an adopted habitat conservation plan. The proposed project would not result in any new or more severe significant impacts than what is evaluated in Section 3.6.3, *Impact Analysis and Mitigation Measures*, of the PEIR. Therefore, no new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities.

4.6 Geology, Soils, Paleontology, and Mineral Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	LTS	Impact GEO-1 pages 3.7-26 to 3.7-29	Yes	GEO-1 GEO-2 GEO-3 GEO-4 GEO-5 GEO-6 GEO-7 GEO-8 HYD-4 AQ-4	NA	LTS	No	Yes
Impact GEO-2: Increase Risk of Landslide	LTS	Impact GEO-2 pages 3.7-29 to 3.7-30	Yes	GEO-1 GEO-2 GEO-3 GEO-4 GEO-5 GEO-6 GEO-7 GEO-8 HYD-4 AQ-4	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Geology, Soils, Paleontology, and Mineral Resources Impacts: Would the treatment result in other impacts to geology, soils, paleontology, and mineral resources that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT GEO-1

The proposed project includes mechanical and manual vegetation treatment activities over approximately 165 acres of undeveloped forest land. The proposed project would also include prescribed burning as one of the proposed methods of biomass disposal. Consistent with the impact analysis of the PEIR, proposed vehicle and equipment use and vegetation removal has the potential to increase short-term erosion and/or loss of topsoil during proposed treatment activities. The reduction of vegetation cover may result in a minimal increase in long-term erosion throughout treated areas. The proposed project does not include non-shaded fuelbreaks or other treatments that would result in the removal of all trees in a treatment area. Additionally, prescribed burning may increase the risk of water repellency and breakdown of soil structure, which can lead to an increase in erosion.

PDFs 4, 20, and 76 through 88, included in Section 2, *Project Description*, would reduce the potential for proposed treatments, including prescribed burning, to result in increased erosion. Additionally, the PEIR includes SPRs to reduce the potential for increased erosion to occur as a result of proposed treatment activities. SPRs GEO-1 through GEO-8 have been included in the PEIR to avoid or reduce the potential for substantial soil erosion or loss of topsoil as a result of vegetation treatment activities. During precipitation events, SPR GEO-1 requires suspension of mechanical soil disturbance. When soils within the treatment areas are wet and saturated, SPR GEO-2 limits high ground-pressure vehicles to avoid compaction or damage to soil structure. SPR GEO-3 requires stabilization of soil areas following mechanical or prescribed burn treatments that result in the exposure of bare soil of 50% or more of the treatment area. SPR GEO-4 requires inspection of erosion control measures prior to the rainy season and immediately following the first large rainfall event. SPR GEO-5 requires use of water breaks to drain compacted or bare linear treatment areas resulting from proposed treatment activities. SPR GEO-6 identifies requirements for burn pile size and location to reduce potential soil instability following prescribed burning activities. SPR GEO-7 minimizes erosion from use of heavy equipment on slopes and SPR GEO-8 requires evaluation of treatment areas with slopes greater than 50 percent for unstable areas. Additionally, SPR HYD-4 prohibits the placement of burn piles within WLPZs and SPR AQ-4 limits vehicle speeds on unpaved roads, requires treatment crews to wet unpaved roads if excessive dust is created during road use, requires that vehicles be cleaned prior to leaving treatment sites to reduce the inadvertent transport of dust from unpaved areas onto paved roads, and requires the suspension of ground disturbing activities when they result in visible dust transport outside the boundary of treatment areas.

Following implementation of PDFs and SPRs GEO-1 through GEO-8, HYD-4, and AQ-4, project-specific impacts would be less than significant, which is consistent with the determination of the PEIR. Therefore, no new or more severe significant impacts would occur as a result of proposed activities.

IMPACT GEO-2

The proposed project area is located along a portion of Tecuya Ridge and consists of steeply sloping topography. Consistent with the scope of the PEIR, proposed treatment activities would result in vegetation removal and thinning in steeply sloping areas, which may increase the risk of landslide due to removal of subsurface root structure. Although evaluated in the PEIR, the proposed project area is located in a drought-prone area and tree removal is not anticipated to significantly increase soil water content in a manner that would destabilize slopes. Following treatment activities, green trees would remain within the landscape, which would reduce potential for a change in subsurface soil structure to result in landslide. PDFs 17, 27, and 76 through 88, included in Section 2, *Project Description*, would be implemented to reduce the risk of landslide that may result from heavy equipment use in steeply sloping areas. The PEIR also includes SPRs to reduce the risk of landslide as a result of proposed treatment activities, including

SPRs GEO-3, GEO-4, GEO-6 through GEO-8, HYD-4, and AQ-4, as described in Impact GEO-1. Following implementation of PDFs and SPRs, potential impacts related to the risk of landslide would be less than significant, which is consistent with the determination of the PEIR. Therefore, no new or more severe significant impacts would occur as a result of proposed activities.

NEW GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.7.1, *Environmental Setting*, and Section 3.7.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific characteristics of proposed treatment activities are consistent with the analysis and conclusions in Section 3.7.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to geology and soil resources would occur.

4.7 Greenhouse Gas Emissions

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs	LTS	Impact GHG-1 pages 3.8-10 to 3.8-11	Yes	None	NA	LTS	No	Yes
Impact GHG-2: Generate GHG Emissions through Treatment Activities	PSU	Impact GHG-2 pages 3.8-11 to 3.18-17	Yes	AQ-1 AQ-3 HAZ-1 NOI-5	GHG-2	LTSM	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Greenhouse Gas Emissions Impacts: Would the treatment result in other impacts to greenhouse gas emissions that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT GHG-1

The overall goal of the CalVTP is to reduce the risk of wildfire, which would likely result in greenhouse gas (GHG) emissions caused by large wildfire events and would increase long-term carbon sequestration through the preservation of trees. Fuel reduction treatments that were evaluated in the PEIR were determined to be consistent with California's *2017 Climate Change Scoping Plan* (2017 Scoping Plan), the *California Forest Carbon Plan*, and the *Draft California 2030 Natural and Working Lands Climate Change Implementation Plan*. These plans acknowledge the importance of fuel reduction treatments and prescribed burns in managing natural and working lands to reduce long-term GHG emissions. Project-specific fuel reduction treatments for the proposed project would be consistent with the fuel reduction treatments evaluated in the PEIR; therefore, as evaluated in the PEIR, short-term GHG emissions from equipment and vehicle use and prescribed burns are anticipated to be offset by the long-term benefits of reducing wildfire risk within the state. In addition, the proposed project would be required to comply with the SJVAPCD requirements for permissive burn days to reduce excessive GHG emissions associated with

smoke from prescribed burns. The proposed project would be consistent with the analysis of the PEIR and would not conflict with applicable GHG reduction plans, regulations, or policies; therefore, project-specific impacts would be less than significant, which is consistent with the impact determination included in the PEIR. Therefore, no new or more severe significant impacts would occur as a result of proposed activities.

IMPACT GHG-2

Proposed manual and mechanical treatment activities would result in GHG emissions generated by the use of on- and off-road vehicles and equipment (e.g., masticators, chippers, bulldozers, etc.), machine-powered hand tools (e.g., chainsaws), and crew and equipment transportation. Prescribed burns would also generate GHG emissions through the use of heavy vehicles and equipment (e.g., bulldozers, masticators, track chippers, fire engines, water trucks, etc.) and the combustion of vegetation. Based on the acreage of proposed treatment activities and the types of proposed treatment activities, the PEIR estimates that GHG emissions generated by the CalVTP would total approximately 4,051 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year. Additionally, prescribed burns would likely generate the largest amount of GHG emissions because most of the carbon contained in fuels subject to prescribed burns would be directly emitted into the air as either CO_2 or particulate matter. Consistent with the PEIR, proposed treatment activities would result in GHG emissions from vehicle and equipment use and would result in direct, short-term GHG emissions as a result of prescribed burns. The proposed project encompasses a smaller treatment area and would generate a substantially reduced amount of GHG emissions compared to what was evaluated in the PEIR. In addition, prescribed burns for the proposed project would be limited to 5 acres of small quantities of biomass disposal.

Manual and Mechanical Treatments

Proposed treatment activities would progress across treatment sites; therefore, GHG emissions generated by vehicle and equipment use would be short-term and intermittent and would not result in a new long-term source of emissions in the proposed project area. In addition, SPRs and mitigation measures were included in the PEIR to reduce GHG emissions generated by vehicle and equipment use. SPR HAZ-1 requires that all diesel and gasoline-powered equipment be properly maintained to comply with all state and federal emissions requirements, which would prevent excessive emissions as a result of poorly functioning equipment. SPR NOI-5 restricts equipment idling time. SPR AQ-1 requires project compliance with all applicable SJVAPCD air quality requirements. Since the proposed project is not anticipated to expose people to substantial GHG emissions associated with vehicle and equipment use, and implementation of SPRs would further reduce potential exposure, further mitigation would not be necessary; however, PEIR Mitigation Measure AQ-1 included in Impact GHG-1 in Section 4.3, *Air Quality*, of the PEIR would further reduce potential impacts through the implementation of on-road vehicle and off-road equipment exhaust emission reduction techniques during treatment activities. Therefore, project-specific impacts associated with GHG emissions generated by vehicle and equipment use would be less than significant.

Prescribed Burning

PDFs 9 through 20, included in Section 2, *Project Description*, would be implemented to control and reduce the potential for excessive smoke to occur as a result of prescribed burns. The proposed project would be required to implement SPRs and mitigation measures included in the PEIR. SPR AQ-3 and PEIR Mitigation Measure GHG-2 would be implemented during prescribed burns to reduce GHG emissions where feasible during treatment. Additionally, the proposed project would be required to comply with the SJVAPCD requirements for permissive burn days to reduce risk associated with increased fire or smoke from prescribed burns due to weather conditions, which would concurrently

reduce the risk of excessive of smoke and related GHG emissions. Although this impact was considered potentially significant in the PEIR, due to the limited amount of proposed prescribed burning activities and implementation of PDFs, SPRs, and mitigation measures to reduce GHG emissions where feasible, the proposed project is not anticipated to generate a substantial amount of GHG emissions through prescribed burning. Therefore, project-specific impacts would be less than significant with mitigation, and no new or more severe impacts would occur as a result of the proposed project.

NEW GREENHOUSE GAS EMISSIONS IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.8.1, *Environmental Setting*, and Section 3.8.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impact GHG-1 is consistent with the analysis and conclusions in Section 3.8.3, *Impact Analysis and Mitigation Measures*, of the PEIR. Impact GHG-2 would be less than significant with mitigation due to the limited amount of prescribed burning activity and measures in place to reduce GHG emissions. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to GHG emissions would occur.

4.8 Energy Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact ENG-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy	LTS	Impact ENG-1 pages 3.9-7 to 3.9-8	Yes	NA	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Energy Resources Impacts: Would the treatment result in other impacts to energy resources that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT ENG-1

As described in the PEIR, proposed treatment activities would result in the short-term consumption of energy resources in the form of gasoline, diesel, and fuels during the use of heavy-duty vehicles and equipment and crew transportation to and from the site. Long-term impacts related to energy consumption would likely be beneficial because proposed treatment activities would reduce the threat of large-scale wildfire events that would require immediate emergency response personnel and vehicle mobilization. Consistent with the PEIR, treatment activities would require the short-term consumption of energy resources; however, by reducing wildfire risk, the inefficient use of energy resources during catastrophic wildfire events could also be reduced. Proposed treatment activities are consistent with the equipment and treatment types included in the PEIR. Therefore, the proposed project is consistent with the determination of the PEIR and would not result in any new or more significant environmental effects.

NEW ENERGY RESOURCES IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.9.1, *Environmental Setting*, and Section 3.9.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific characteristics of proposed treatment activities are consistent with the analysis and conclusions in Section 3.9.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No

new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to energy resources would occur.

4.9 Hazardous Materials, Public Health, and Safety

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact Haz-1 pages 3.10-14 to 3.10-15	Yes	HAZ-1 HAZ-5 HYD-4	NA	LTS	No	Yes
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2 pages 3.10-15 to 3.10-18	No	--	--	--	--	--
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	LTSM	Impact HAZ-3 pages 3.10-18 to 3.10-19	No	--	--	--	--	--

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Hazardous Materials, Public Health, and Safety Impacts: Would the treatment result in other impacts to hazardous materials, public health, and safety that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT HAZ-1

Vehicle and equipment use associated with proposed treatment activities requires the use of hazardous materials, including fuels, oils, and lubricants to operate. Consistent with the analysis of the PEIR, the use, transport, and/or disposal of these materials may result in accidental upset if released into the environment. PDFs 2 and 37 through 39, included in Section 2, *Project Description*, would reduce the potential for hazardous spills to occur within the proposed project area through regular vehicle and equipment inspection and maintenance. The proposed project would be subject to SPRs included in the PEIR, including SPR HAZ-1, which requires regular maintenance and inspection of vehicles and

equipment within treatment areas and the immediate removal of leaking equipment, as necessary, to reduce the potential for hazardous material contamination within proposed treatment areas, and SPR HYD-4, which prohibits the use of accelerants for prescribed burns within watercourse protection zones. SPR HAZ-5 requires the preparation of a Spill Prevention and Response Plan and requires a spill kit to be maintained on-site. Additionally, the proposed project would also be subject to Hazardous Waste Control Act (HWCA), California Department of Substance Control (DTSC), California Division of Occupational Health and Safety Administration (Cal/OSHA), and California Environmental Protection Agency (CalEPA) regulations for the use, transport, storage, and disposal of hazardous materials. Therefore, project-specific impacts would be less than significant and proposed treatment activities would be consistent with the scope and environmental determination of the PEIR. The proposed project would not result in any new or more significant environmental effects.

IMPACT HAZ-2

The proposed project does not include the use of herbicides; therefore, this impact does not apply to the proposed project.

IMPACT HAZ-3

According to the DTSC EnviroStor and Regional Water Quality Control Board (RWQCB) GeoTracker, there are no previously recorded hazardous materials sites within or adjacent to the proposed project area (DTSC 2022; RWQCB 2022). Soil disturbance caused by mechanical treatments and prescribed burning has the potential to expose workers, the public, and the environment to risks associated with existing hazardous materials if present within treatment areas. Since there are no known hazardous materials sites within the proposed project area, this impact area does not apply to the proposed project.

NEW HAZARDOUS MATERIALS, PUBLIC HEALTH, AND SAFETY IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.10.1, *Environmental Setting*, and Section 3.10.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impact HAZ-1 is consistent with the analysis and conclusions in Section 3.10.3, *Impact Analysis and Mitigation Measures*, of the PEIR; however, Impacts HAZ-2 and HAZ-3 do not apply to the proposed project because proposed treatment activities do not include the use of herbicides and there are no known hazardous materials sites within or adjacent to the proposed project area. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to hazardous materials, public health, and safety would occur.

4.10 Hydrology and Water Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact HYD-1: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Prescribed Burning	LTS	Impact HYD-1 pages 3.11-25 to 3.11-27	Yes	AQ-3 BIO-4 GEO-3 GEO-4 GEO-6 HYD-4 HAZ-1 HAZ-5	NA	LTS	No	Yes
Impact HYD-2: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Manual or Mechanical Treatment Activities	LTS	Impact HYD-2 pages 3.11-27 to 3.11-29	Yes	HYD-1 HYD-4 GEO-1 GEO-2 GEO-3 GEO-4 GEO-7 GEO-8 HAZ-1 HAZ-5	NA	LTS	No	Yes
Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory	LTS	Impact HYD-3 page 3.11-29	No	--	--	--	--	--
Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct	LTS	Impact HYD-4 pages 3.11-30 to 3.11-31	No	--	--	--	--	--

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
the Implementation of a Water Quality Control Plan Through the Ground Application of Herbicides								
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5 page 3.11-31	Yes	HYD-1 HYD-2 HYD-6 GEO-1 GEO-2 GEO-3 GEO-4 GEO-7 GEO-8	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Hydrology and Water Quality Impacts: Would the treatment result in other impacts to hydrology and water quality that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☐ **No** If yes, complete row(s) below and discussion.

Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
☐	☐	☐

Discussion

IMPACT HYD-1

The NWI Surface Waters and Wetlands mapper identifies two wetland areas and several surface water features within the proposed project area (USFWS 2022a). The proposed project includes prescribed burning as one method of biomass disposal. Project-specific impacts would be consistent with the PEIR, which identifies the potential for prescribed burns to disturb soils within the treatment area and increase erosion that could runoff into nearby waterways. PDFs 4, 20, 37 through 39, and 76 through 88, included in Section 2, *Project Description*, would reduce the potential for proposed treatments, including prescribed burning, to result in increased erosion that could enter into nearby waterways and would require avoidance of WLPZs and other exclusions areas. SPRs are also included in the PEIR to reduce erosion from prescribed burning activities. SPR GEO-6 limits the size of pile sites for burning to reduce erosion. SPR HYD-4 prohibits the placement of burn piles within WLPZs. SPR AQ-3 requires the proposed project to prepare and implement a burn plan to reduce the potential for prescribed burns to extend beyond the planned burn area. Implementation of SPR BIO-4 would minimize streamside vegetation loss and requires restoration where loss is unavoidable. After completion of a prescribed burn, SPR GEO-4 requires implementation of erosion controls prior to the next rainy season and inspection for

evidence of erosion after the first large storm or rainfall event. Additionally, SPR HYD-4 requires equipment to be fueled and serviced outside of WLPZs and wet areas. SPR HAZ-1 requires that all equipment be maintained and regularly inspected for leaks. SPR HAZ-5 requires the preparation of a Spill Prevention and Response Plan and requires a spill kit to be maintained on-site. Implementation of identified PDFs and SPRs would reduce the potential for erosion and/or hazardous spills to occur that could runoff into adjacent waterbodies. Therefore, project-specific impacts would be less than significant, which is consistent with the determination of the PEIR.

IMPACT HYD-2

Proposed vegetation treatments also include manual and mechanical treatments that may occur near wetland or other surface water features. Consistent with the PEIR, these treatment activities would disturb soils, which may increase erosion that could enter waterways and degrade water quality. The proposed project would also require the use of fuels for vehicles and equipment, which also have the potential to enter waterways and degrade water quality. In addition, vehicle and equipment use during prescribed burning activities could result in accidental spills that have the potential to runoff into nearby water resources.

PDFs 2 and 37 through 39, included in Section 2, *Project Description*, will be implemented during proposed treatment activities to avoid work within WLPZs and other exclusion areas and to reduce the potential for excessive erosion or hazardous spills to occur as a result of proposed mechanical and manual treatments. The proposed project would also implement applicable SPRs included in the PEIR to reduce the potential for erosion and other pollutants from entering waterways. SPR BIO-1 requires that a qualified RPF or biologist identify sensitive habitats, such as wetlands, wet meadows, or riparian areas, as well as a suitable buffer area for avoidance during proposed project activities to act as a filter to slow runoff from adjacent treatment areas, allow infiltration of stormwater, and trap sediment that could otherwise be carried into surface waters. SPR GEO-1 and SPR GEO-2 limit ground disturbance during precipitation or heavy equipment operation over saturated soils, when such activity could produce ruts where runoff could concentrate. SPR GEO-3 requires highly disturbed areas to be stabilized with mulch and SPR GEO-4 requires treatment areas to be inspected for erosion and remediated prior to the rainy season and following the first large storm or rainfall event. Implementation of SPR GEO-7 and SPR GEO-8 would limit equipment operation on steep or unstable slopes to reduce the potential for erosion. SPR HYD-1 requires the proposed project to comply with all state and regional water quality regulations, including conditions of waste discharge requirement waivers that are applicable to fuel reduction and fire prevention activities. Additionally, SPR HYD-4 requires equipment to be fueled and serviced outside of WLPZs and wet areas. SPR HAZ-1 requires that all equipment be maintained and regularly inspected for leaks. SPR HAZ-5 requires the preparation of a Spill Prevention and Response Plan and requires a spill kit to be maintained on-site. Implementation of PDFs and SPRs would reduce the potential for erosion and/or accidental spills to runoff into adjacent waterbodies; therefore, project-specific impacts would be less than significant. Implementation of the proposed project would not result in any new or more severe impacts that were included in the PEIR.

IMPACT HYD-3

The proposed project does not include prescribed herbivory; therefore, this impact does not apply to the proposed project.

IMPACT HYD-4

The proposed project does not include the use of herbicides; therefore, this impact does not apply to the proposed project.

IMPACT HYD-5

As described in the PEIR, treatments implemented under the CalVTP would include ground-disturbing activities that could intersect existing drainage infrastructure at treatment sites. The proposed project includes manual treatments, mechanical treatments, and prescribed burns to create a shaded fuelbreak along Tecuya Ridge. Following implementation of PDFs and SPRs included in Impacts HYD-1 and HYD-2, prescribed burning and manual and mechanical vegetation removal would have minor effects on drainages at the proposed project site. Applicable SPRs include HYD-1, GEO-1 through GEO-4, GEO-7, and GEO-8. The proposed project does not include the creation of non-shaded fuelbreaks that may result in substantial impacts to existing drainage patterns within the proposed project area. Therefore, project-specific impacts would be less than significant, and implementation of the proposed project would not result in any new or more severe impacts than were included in the PEIR.

NEW HYDROLOGY AND WATER QUALITY IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.11.1, *Environmental Setting*, and Section 3.11.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impacts HYD-1, HYD-2, and HYD-4 are consistent with the analysis and conclusions in Section 3.11.3, *Impact Analysis and Mitigation Measures*, of the PEIR. Impacts HYD-3 and HYD-4 do not apply because the proposed project does include the use of herbicides. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to hydrology and water quality would occur.

4.11 Land Use and Planning, Population and Housing

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	LTS	Impact LU-1 pages 3.12-13 to 3.12-14	Yes	AD-3	NA	LTS	No	Yes
Impact LU-2: Induce Substantial Unplanned Population Growth	LTS	Impact LU-2 pages 3.12-14 to 3.12-15	Yes	NA	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Land Use and Planning, Population and Housing Impacts: Would the treatment result in other impacts to land use and planning, population and housing that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT LU-1

Proposed treatment activities would occur on private lands along a portion of Tecuya Ridge. The proposed project would connect two segments of USFS land, which have been previously identified for fuel reduction treatment activities. SPR AD-3 included in the PEIR requires projects to be consistent with applicable local plans, policies, and ordinances. Applicable local plans, policies, and ordinances include the *Kern County General Plan*, Kern County Code of Ordinances, SJVAPCD *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standard* (SJVAPCD 2018), SJVAPCD *2020 Reasonably Available Control Technology (RACT) Demonstration for the 8-Hour Ozone Standard* (SJVAPCD 2020), and Mt. Pinos CWPP. These plans require the protection of biological resources, water resources, air quality, and other environmental resources. In addition, the *Kern County General Plan Safety Element* and Mt. Pinos CWPP identify the need to protect the community from potential threats, including wildfire (Kern County 2009). The proposed project includes PDFs to reduce potential impacts related to air quality, special-status species and other biological resources, soil stability, and water resources. Consistent with the analysis of the PEIR, implementation of SPRs and mitigation measures included in each resource section would

avoid or reduce impacts and ensure consistency with applicable land use plans, policies, and regulations. Additionally, the proposed project would reduce the risk for wildfire to occur, which is consistent with the *Kern County General Plan Safety Element* and the Mt. Pinos CWPP. Since PDFs, SPRs, and mitigation measures are required to be implemented in individual resource sections, the proposed project would have less-than-significant impacts related to land use planning; therefore, the proposed project would be consistent with the evaluation and determination included in the PEIR, and no new or more significant environmental impacts would occur.

IMPACT LU-2

Due to the large geographical scope of the PEIR, it is anticipated that the increase in proposed vegetation treatments would generate new employment opportunities that could marginally increase population growth throughout the state. The proposed project includes three to seven crew members to conduct proposed vegetation treatments. There is potential for the proposed project to generate new employment opportunities necessary to implement proposed vegetation treatments. New employment opportunities may result in a marginal population increase within the proposed project area; however, substantial population growth is not anticipated to occur because the proposed project does not include residential or other development that could permanently increase population. The proposed project would not result in a substantial population increase and impacts would be less than significant. Therefore, project-specific impacts would be consistent with the analysis and determination of the PEIR.

NEW LAND USE AND PLANNING, POPULATION AND HOUSING IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.12.1, *Environmental Setting*, and Section 3.12.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific impacts are consistent with analysis and conclusions in Section 3.12.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to land use and planning or population and housing would occur.

4.12 Noise

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1 pages 3.13-9 to 3.13-12 Appendix NOI-1	Yes	AD-3 NOI-1 NOI-2 NOI-3 NOI-4 NOI-5 NOI-6	NA	LTS	No	Yes
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated Single-Event Noise Levels During Treatment Activities	LTS	Impact NOI-2 page 3.13-12	Yes	NOI-1	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Noise Impacts: Would the treatment result in other noise-related impacts that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT NOI-1

Vehicle and equipment use for proposed vegetation treatment activities have the potential to increase ambient noise levels within the vicinity of proposed treatment areas. The Kern County Code of Ordinances (Section 8.38.020) prohibits construction noise that is audible to sensitive receptors within 150 feet of the proposed construction activities between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends. Proposed vegetation treatments would occur during daylight hours and would be located approximately 0.7 mile away from public areas. The *Kern County General Plan Noise Element* includes policies and implementation measures to protect noise sensitive land uses from excessive noise. The *Kern County General Plan Noise Element* identifies parks and recreational areas as a noise-sensitive land use (Kern County 2009). Proposed vegetation treatments would occur on private lands; however, there is potential for public recreational land uses along Tecuya

Ridge to be exposed to increases in ambient noise. Noise generated by proposed treatments would be temporary, would be intermittent, and would not create a new permanent source of noise in the area, which is consistent with the *Kern County General Plan*. Therefore, the proposed project would be consistent with SPR AD-3 because it would be consistent with the *Kern County General Plan Noise Element*.

Additionally, the proposed project would be subject to noise-specific SPRs included in the PEIR to reduce short-term increases in ambient noise levels as feasible. SPR NOI-1 restricts vegetation treatment activities to daytime hours. SPR NOI-2 requires all equipment to be maintained appropriately and equipped with the proper intake and exhaust shrouds. SPR NOI-3 requires all equipment engine shrouds to be closed during operation. SPR NOI-4 would require vegetation treatment activities and staging areas be located away from sensitive receptors to the extent feasible to minimize noise exposure. SPR NOI-5 restricts equipment idling time. Additionally, SPR NOI-6 requires notification be provided to nearby sensitive receptors when heavy equipment would be used for a treatment. With implementation of required SPRs, the proposed project would have a less-than-significant impact related to short-term increases in ambient noise and would be consistent with the determination of the PEIR.

IMPACT NOI-2

As described in the PEIR, single event [impulsive] noise level (SENL) describes a receiver's cumulative noise exposure from a single impulsive noise event (e.g., an automobile passing by, an aircraft flying overhead). The proposed project has the potential to increase SENL within the proposed project area through heavy equipment and vehicle trips. The treatment area would be accessed by a private road, which would reduce public exposure to an increase in SENL. In addition, SPR NOI-1 would be implemented to restrict vegetation treatment activities to daytime hours, which would reduce the potential for an increase in heavy vehicle and equipment trips to increase SENLs during noise-sensitive evening and nighttime hours. The increase in heavy vehicle and equipment trips would be temporary and would not result in a permanent increase in trips along nearby roads. The proposed project would be consistent with the PEIR because vehicle and equipment trips would be limited to daylight hours and would not result in a long-term increase in SENL. Therefore, project-specific impacts would be less than significant, and no new or more severe impacts than what was evaluated in the PEIR would occur.

NEW NOISE IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.13.1, *Environmental Setting*, and Section 3.13.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific impacts are consistent with analysis and conclusions in Section 3.13.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to noise would occur.

4.13 Recreation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	LTS	Impact REC-1 pages 3.14-6 to 3.14-7	Yes	REC-1	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Recreation Impacts: Would the treatment result in other impacts to recreation that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT REC-1

Potential impacts related to recreation in the PEIR include access restrictions and/or nuisance impacts during proposed treatment activities. The proposed project would not result in public access restrictions because proposed treatment activities would occur on private lands and would be accessed by a private roadway. Proposed treatment activities, including manual treatments, mechanical treatments, and prescribed burns, may result in nuisance impacts to recreationists on public lands within the Tecuya Ridge area. PDFs 69 and 70, included in Section 2, *Project Description*, would be implemented to ensure safety to nearby recreationists in the area. In addition, the PEIR includes SPRs that would minimize recreational nuisances generated by the proposed project. SPR AD-3 requires the proposed project to comply with applicable plans, policies, and ordinances, including the *Kern County General Plan Noise Element* and the SJVAPCD's permissive burn day requirements. The proposed project would be required to implement SPR REC-1, which requires public notification prior to the start of vegetation treatment activities. Potential nuisance impacts would be temporary and would not result in permanent conflicts with existing nearby recreational land uses. Therefore, project-specific impacts would be less than significant, which is consistent with determination of the PEIR. No new or more severe impacts would result from implementation of the proposed project.

NEW RECREATION IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.14.1, *Environmental Setting*, and Section 3.14.2, *Regulatory Setting*, included in the PEIR. As evaluated above, project-specific impacts are consistent with analysis and conclusions in Section 3.14.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to recreation would occur.

4.14 Transportation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Impact TRAN-1 pages 3.15-9 to 3.15-10	Yes	AD-3 TRAN-1	NA	LTS	No	YES
Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses	LTS	Impact TRAN-2 pages 3.15-10 to 3.15-11	Yes	AD-3 TRAN-1	NA	LTS	No	Yes
Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP	PSU	Impact TRAN-3 pages 3.15-11 to 3.15-13	Yes	NA	None	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Transportation Impacts: Would the treatment result in other impacts to transportation that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☐ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT TRAN-1

The *Kern County General Plan Circulation Element* evaluates existing roadway conditions using levels of service (LOS), which are categorized according to the flow of traffic. Within the county, LOS D is considered an acceptable LOS (Kern County 2009). The proposed treatment area encompasses approximately 165 acres of private lands along Tecuya Ridge and would be accessed by a private OHV road from Frazier Mountain Park Road to the south. The proposed project has the potential to slow the flow of traffic through an increase of heavy vehicles and equipment traveling on nearby roadways and

through implementation of temporary traffic controls. PDF 70 would require coordination with staff on nearby recreational lands in regard to OHV use and any potential closures. If temporary traffic controls on public roadways are required for vegetation treatments, the proposed project would be subject to SPR TRAN-1, included in the PEIR, which requires coordination with local agencies to develop a traffic management plan, as necessary. In addition, vehicle and equipment transportation would be mostly limited to private roadways and would not permanently impede the flow of traffic on public roadways, which is consistent with the *Kern County General Plan Circulation Element*. The proposed project would be consistent with SPR AD-3 because it would be consistent with the *Kern County General Plan Circulation Element*. Therefore, project-specific impacts would be less than significant, which is consistent with the analysis and determination included in the PEIR.

IMPACT TRAN-2

The proposed project does not include the construction of any new roads; therefore, the proposed project would not substantially increase a hazard due to hazardous road design. However, the proposed project includes prescribed burning as a method of biomass disposal, which would result in smoke that may impair visibility along roadways. PDFs 9 through 20, included in Section 2, *Project Description*, would be implemented to control prescribed burns to reduce the potential for excessive smoke that could impair visibility along nearby roadways. The proposed project would be subject to SPR TRAN-1, which requires the applicant to monitor prescribed burning operations and the associated smoke dispersion and incorporate measures to avoid and minimize traffic obstructions and hazards along affected roadway facilities, as needed. The PEIR identifies an increase in congestion as a potential roadway hazard. As described in Impact TRAN-1, any temporary traffic controls would also be subject to SPR TRAN-1 to avoid unnecessary hazards associated with implementation of traffic controls. Additionally, the proposed project would be consistent with SPR AD-3 because traffic controls are not anticipated to increase long-term congestion along public roadways, which is consistent with the *Kern County General Plan Circulation Element*. Therefore, project-specific impacts would be less than significant and would not constitute a new or more severe impact than what was evaluated in the PEIR.

IMPACT TRAN-3

According to the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, projects that do not indicate substantial evidence that a project would generate a potentially significant level of vehicle miles traveled (VMT), that are consistent with a Sustainable Communities Strategy (SCS) or general plan, or that would generate or attract fewer than 110 trips per day, generally, may be assumed to cause a less-than-significant transportation impact (California Governor's Office of Planning and Research [OPR] 2018). Two to three vehicles would be used for crew transportation to the proposed project area. Vanpooling would be utilized to limit the number of personnel and crew trips to the site. In addition, the proposed project includes on-site equipment storage, which would reduce the number of daily equipment hauling trips. The proposed increase in vehicle and equipment trips would be temporary and is not anticipated to result in more than 110 trips per day; therefore, project-specific impacts related to VMT would be less than significant. The PEIR evaluates the potential impacts of an increase in vegetation treatments throughout the state; therefore, this impact area was identified as having a potentially significant and unavoidable impact related to VMT. The PEIR also notes that individual treatment projects are reasonably expected to generate less than 110 trips per day, which is consistent with the determination of the proposed project. Project-specific impacts would be less than significant; therefore, the proposed project would not result in any new or more severe impacts than what was included in the PEIR.

NEW TRANSPORTATION IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.15.1, *Environmental Setting*, and Section 3.15.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impacts TRAN-1 and TRAN-2 are consistent with the analysis and conclusions in Section 3.15.3, *Impact Analysis and Mitigation Measures*, of the PEIR; however, Impact TRAN-3 would have a less-than-significant impact related to VMT. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to transportation would occur that is not covered in the PEIR.

4.15 Public Services, Utilities, and Service Systems

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	LTS	Impact UTIL-1 page 3.16-9	Yes	NA	NA	LTS	No	Yes
Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	PSU	Impact UTIL-2 pages 3.12-10 to 3.16-12	No	--	--	--	--	--
Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	LTS	Impact UTIL-3 page 3.16-12	No	--	--	--	--	--

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Public Services, Utilities, and Service Systems Impacts: Would the treatment result in other impacts to public services, utilities, and service systems that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☒ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT UTIL-1

The proposed project would be consistent with the analysis included in the PEIR because it would require the use of water on an as-needed basis to extinguish prescribed burns and to limit dust from vegetation removal and vehicle and equipment transportation on unpaved roads. There is potential for proposed activities to result in a short-term increase in demand on water. Water for the proposed project would not require any connections to groundwater resources. If necessary, on-site water supply would be provided by water trucks. The proposed project would not result in a permanent increase in demand on local water

providers or groundwater supply. Therefore, impacts would be less than significant, and no new or more severe impacts than were evaluated in the PEIR would occur.

IMPACT UTIL-2

Proposed biomass disposal methods include chipping, mastication, and prescribed burning. The proposed project does not include the transport of biomass to local waste providers. Therefore, the proposed project would not result in the solid waste that would exceed state or local standards or exceed local infrastructure capacity, and this impact does not apply to the proposed project.

IMPACT UTIL-3

As described in Impact UTIL-2, the proposed project does not include the transport of biomass to local waste providers. Therefore, this impact does not apply to the proposed project.

NEW PUBLIC SERVICES, UTILITIES, AND SERVICE SYSTEMS IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.16.1, *Environmental Setting*, and Section 3.16.2, *Regulatory Setting*, included in the PEIR. As evaluated above, Impact UTIL-1 is consistent with the analysis and conclusions in Section 3.16.3, *Impact Analysis and Mitigation Measures*, of the PEIR; however, Impacts UTIL-2 and UTIL-3 do not apply to the proposed project because proposed treatment activities do not include off-site disposal of biomass generated by the proposed project. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to public services, utilities, and service systems would occur.

4.16 Wildfire

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	**Identify Impact Significance in the PEIR**	**Identify Location of Impact Analysis in the PEIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project[1]**	**List MMs Applicable to the Treatment Project[1]**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the PEIR?**	**Is This Impact Within the Scope of the PEIR?**
Would the project:								
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	LTS	Impact WIL-1 pages 3.17-14 to 3.17-15	Yes	HAZ-2 HAZ-3 HAZ-4 AQ-3 AD-3	NA	LTS	No	Yes
Impact WIL-2: Expose People or Structures to Substantial Risks Related to Postfire Flooding or Landslides	LTS	Impact WIL-2 pages 3.17-15 to 3.17-16	Yes	GEO-3 GEO-4 GEO-5 GEO-6 GEO-8 AQ-3	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact.

New Wildfire Impacts: Would the treatment result in other impacts related to wildfire that are not evaluated in the CalVTP PEIR?

☐ **Yes** ☐ **No** If yes, complete row(s) below and discussion.

	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT WIL-1

Proposed vegetation treatments include manual treatments, mechanical treatments, and prescribed burns within an area that has been identified as having high potential for wildfire to occur. Consistent with the PEIR, proposed treatment activities have the potential to result in temporary risks associated with the uncontrolled spread of fire from prescribed burning and vehicle and heavy machinery use due to the risk of accidental wildfire ignition. PDFs 8, 9 through 20, and 28, included in Section 2, *Project Description*, would be implemented to reduce the potential for proposed treatments, including prescribed burns and mechanical equipment use, to ignite a wildfire. Additionally, the PEIR includes SPRs that would be implemented to further reduce the risk of uncontrolled spread of fire from treatment activities. SPR HAZ-2 requires machine-powered hand tools to have federally or state-approved spark arrestors, which prevent the emissions of flammable debris. SPR HAZ-3 requires vegetation treatment crews to carry one fire extinguisher per chainsaw and one long-handle shovel and one axe or Pulaski, to quickly respond to an

ignition, should one occur. SPR HAZ-4 prohibits smoking outside of designated smoking areas, which would help to minimize the risk of accidental wildfire ignition. SPR AQ-3 requires the proposed project to prepare and implement a burn plan according to CAL FIRE requirements. In addition, SPR AD-3 requires the proposed project to comply with applicable local plans and policies pertaining to wildfire risk. The proposed project would be required to comply with the SJVAPCD permissive burn day requirements to reduce the risk of uncontrolled spread of wildfire due to weather and air conditions. Therefore, proposed treatments are not anticipated to increase the risk associated with the uncontrolled spread of wildfire. Additionally, implementation of the proposed treatments is anticipated to reduce long-term risk associated with the uncontrolled spread of wildfire. Project-specific impacts would be less than significant, which is consistent with the determination included in the PEIR.

IMPACT WIL-2

Consistent with the PEIR, the proposed project would not result in the development of new buildings or structures that could expose occupants to risk associated with post-fire flooding or landslides. Prescribed burning may increase the risk of water repellency and breakdown of soil structure. However, PDFs 17, 27, and 76 through 88, included in Section 2, *Project Description*, would be implemented to reduce the potential for landslide risk as a result of treatment activities, and the PEIR also includes SPRS that would reduce the risk of post-fire landslide or flooding risks. SPR GEO-3 requires stabilization of soil areas following mechanical or prescribed burn treatments that result in the exposure of bare soil of 50% or more of the treatment area. SPR GEO-4 requires inspection of erosion control measures prior to the rainy season and immediately following the first large rainfall event. SPR GEO-5 requires the project proponent to use water breaks to drain compacted or bare linear treatment areas resulting from proposed treatment activities. SPR GEO-8 requires geologic evaluation of treatment areas with slopes greater than 50 percent for unstable areas. SPRs GEO-6 and AQ-3 limit burn piles and minimize soil burn severity during prescribed burns, which would retain vegetation within the area for continued soil stabilization. Additionally, implementation of the proposed treatments is anticipated to reduce long-term wildfire risk and associated post-fire landslide or flooding that may affect nearby communities. Therefore, project-specific impacts would be less than significant and would not result in any new or more severe impacts.

NEW WILDFIRE IMPACTS

Proposed treatments are entirely within the CalVTP treatable landscape and are consistent with the treatment types and activities considered in the PEIR. Site-specific characteristics are consistent with Section 3.17.1, *Environmental Setting*, and Section 3.17.2, *Regulatory Setting*, included in the PEIR. As evaluated above, the proposed project is consistent with the analysis and conclusions in Section 3.17.3, *Impact Analysis and Mitigation Measures*, of the PEIR. No new or altered circumstances would result from the proposed project, and no new or more severe significant impacts would occur as a result of proposed activities. Therefore, no new impacts related to wildfire would occur.

5 LIST OF PREPARERS

Kern County Fire Department (Lead Agency)

Andrew Kennison, Division Chief

Jeff Gletne, Registered Professional Forester

SWCA Environmental Consultants (CEQA Compliance)

Jacqueline Markley, Senior Environmental Planner

Annika Kiemm, Staff Environmental Planner

Sarah Halpern, Staff Geospatial Scientist

Jaimie Jones, Technical Editor

6 REFERENCES

Animal Diversity Web. 1999. *Dipodomys ingens* - giant kangaroo rat. Available at: https://animaldiversity.org/accounts/Dipodomys_ingens/. Accessed February 2, 2022.

———. 2012. *Ammospermophilus nelson* - Nelson's antelope squirrel. Available at: https://animaldiversity.org/accounts/Ammospermophilus_nelsoni/. Accessed February 2, 2022.

Ascent Environmental. 2019. *California Vegetation Treatment Program Program Environmental Impact Report*. Available at: https://bof.fire.ca.gov/projects-and-programs/calvtp/calvtp-program-eir/. Accessed January 2022.

California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database. Available at: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018408-cnddb-in-bios. Accessed January 26, 2022.

California Department of Toxic Substance Control (DTSC) 2022. EnviroStor. Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed January 24, 2022.

California Department of Transportation (Caltrans). 2022. California State Scenic Highway System Map. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed January 2, 2022.

California Herps. 2022a. Arroyo Toad – Anaxyrus californicus. Available at: http://www.californiaherps.com/frogs/pages/a.californicus.html. Accessed January 26, 2022.

———. 2022b. Foothill Yellow-legged Frog - Rana boylii. Available at: http://www.californiaherps.com/frogs/pages/r.boylii.html. Accessed January 26, 2022.

———. 2022c. Southern Rubber Boa - Charina umbratical. Available at: http://www.californiaherps.com/snakes/pages/c.umbratica.html. Accessed January 26, 2022.

———. 2022d. Tehachapi Slender Salamander - Batrachoseps stebbinsi. Available at: http://www.californiaherps.com/salamanders/pages/b.stebbinsi.html. Accessed January 26, 2022.

California Geological Survey (CGS). 2011a. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California Map. 2011.

———. 2011b. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California Data Set. 2011.

California Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluation Transportation Impacts in CEQA*. December. Available at: https://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed January 2022.

California Native Plant Society (CNPS). 2022. Tracy's Eriastrum. Available at: https://calscape.org/Eriastrum-tracyi-(). Accessed January 26, 2022.

City of Bakersfield. 2022. Covered Species: Mammals. Available at: http://bakersfieldhcp.us/es_mammals.html. Accessed January 26, 2022.

Los Padres Forest Watch (LPFW). 2013a. Fairy Shrimp. Available at: https://lpfw.org/our-region/wildlife/fairy-shrimp/. Accessed January 26, 2022.

———. 2013b. Kern Mallow. Available at: https://lpfw.org/our-region/wildlife/kern-mallow/. Accessed January 26, 2022.

———. 2013c. San Joaquin Kit Fox. Available at: https://lpfw.org/our-region/wildlife/san-joaquin-kit-fox/. Accessed February 2, 2022.

Kern County. 2009. *Kern County General Plan*. Available at: https://psbweb.co.kern.ca.us/planning/pdfs/kcgp/KCGP_Complete.pdf. Accessed January 2022.

Kern County Fire Department (KCFD). 2021. Kern County Fire Department 2021 Strategic Fire Plan. Available at: https://osfm.fire.ca.gov/media/2yuc2zoq/2021_krn_fireplan.pdf. Accessed January 2022.

Mt. Pinos Communities Fire Safe Council. 2006. The Mt. Pinos Communities Wildfire Protection Plan. Available at: https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/17575/CA_029_MtPinos_2006.pdf;sequence=1. Accessed February 4, 2022.

Regional Water Quality Control Board (RWQCB). 2022. GeoTracker. https://geotracker.waterboards.ca.gov/. Accessed January 24, 2022.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018. *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards*. Available at: https://www.valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf. Accessed January 2022.

———. 2020. *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard*. Available at: http://valleyair.org/Air_Quality_Plans/docs/2020-RACT-Demonstration.pdf. Accessed January 2022.

———. 2022. Ambient Air Quality Standards and Valley Attainment Status. Available at: http://www.valleyair.org/aqinfo/attainment.htm. Accessed January 4, 2022.

U.S. Climate Data. 2022. Climate Frazier Park - California. Available at: https://www.usclimatedata.com/climate/frazier-park/california/united-states/usca1411. Accessed January 26, 2022.

U.S. Department of Agriculture (USDA). 2005. *Land Management Plan, Part 3: Design Criteria for Southern California National Forests*. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5337818.pdf. Accessed January 3, 2022.

———. 2012. *National Best Management Practices for Water Quality Management on National Forest System Lands*. Available at: https://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf. Accessed January 3, 2022.

———. 2019. *Decision Memo Tecuya Ridge Fuelbreak Project*. April 9, 2019.

U.S. Fish and Wildlife Service (USFWS). 1990. Species Account Bakersfield Cactus. Available at: https://www.fws.gov/sacramento/es_species/Accounts/Plants/Documents/bakersfield_cactus.pdf. Accessed January 26, 2022.

———. 2017a. Species Information Blunt-Nosed Leopard Lizard. Available at: https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/blunt_nosed_leopad_lizard/. Accessed January 26, 2022.

———. 2017b. California Red-Legged Frog Species Information. Available at: https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/ca_red_legged_frog/. Accessed January 31, 2022.

———. 2018. Green Sea Turtle (*Chelonia mydas*). Available at: https://www.fws.gov/northflorida/SeaTurtles/Turtle%20Factsheets/green-sea-turtle.htm. Accessed January 31, 2022.

———. 2019. Species Status Assessment for the Tricolored Blackbird. Available at: https://www.fws.gov/cno/Science/Review%20PDFs/2020/Final/Tricolored_Blackbird_SSA.pdf. Accessed January 26, 2022.

———. 2022a. National Wetland Inventory (NWI) Surface Waters and Wetlands Mapper. Available at: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed January 26, 2022.

———. 2022b. Information for Planning and Conservation. Available at: https://ecos.fws.gov/ipac/location/index. Accessed February 2022.

U.S. Forest Service (USFS). n.d. Strategic Fuelbreak Assessment. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/92563_FSPLT3_3949473.pdf. Accessed February 4, 2022.

APPENDIX A

CalVTP PEIR Project-Specific Mitigation Monitoring and Reporting Program

INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment." A mitigation monitoring and reporting program (MMRP) is required for approval of the proposed project outlined in the Project-Specific Analysis (PSA). Standard Project Requirements (SPRs) and Mitigation Measures (MMs), which are part of the program description, outlined in the California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (PEIR), have been adopted. These SPRs and MMs have been designed to avoid or mitigate significant environmental effects that were identified in the PEIR.

PURPOSE OF THE MMRP

This MMRP has been prepared to monitor the implementation of SPRs and MMs. The attached table presents the text of each SPR and mitigation measure, the timing of its planned implementation, the implementing entity, and the entity with monitoring responsibility. The numbering of SPRs and MMs follows the numbering used in the PEIR. SPRs and MMs that are referenced more than once in the PSA are not duplicated in the MMRP.

ROLES AND RESPONSIBILITIES

The project proponent (the Kern County Fire Department [KCFD]) is responsible for taking all actions necessary to implement the SPRs and MMs described in this document. The project proponent is responsible for administration of the project, including timing of mitigations, monitoring, and all project requirements. The CEQA lead agency (the KCFD), will be responsible for verification of all mitigations and monitoring efforts.

REPORTING

The project proponent will document the compliance of the proposed project with the required SPRs and mitigation measures either by adapting the project-specific MMRP table or preparing a separate post-project implementation report.

STANDARD PROJECT REQUIREMENTS AND MITIGATION MEASURES CHECKLIST

- **Applicable Standard Project Requirements and Mitigation Measures.** The SPR or MMs listed below are applicable to the initial treatment and/or treatment maintenance. A yes/no is placed next to the initial treatment and treatment maintenance to indicate if it is applicable to that stage of treatment. SPRs and MMs not applicable to initial or maintenance treatments were removed from the table.
- **Timing.** This column identifies the time frame in which the SPR or MM will be implemented (e.g., prior to treatment, during treatment, etc.).
- **Implementing Entity.** The implementing entity is the agency or organization responsible for carrying out the requirement.
- **Verifying/Monitoring Entity.** The verifying/monitoring entity is the agency or organization responsible for ensuring that the requirement is implemented. The verifying/monitoring entity may be different from the implementing entity.

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Administrative Standard Project Requirements				
SPR AD-2 Delineate Protected Resources: The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly-visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. "Protected Resources" refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester or biologist). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
SPR AD-3: Consistency with Local Plans, Policies, and Ordinances: The project proponent will design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
SPR AD-4: Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent will: 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 will 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, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	At least 3 days prior to prescribed burn activities	KCFD	KCFD
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, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent will 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 will be provided with the notice) if they have questions or concerns. This SPR applies to all	Initial Treatment: Y Treatment Maintenance: Y	1 to 3 days prior to the prescribed burn activities	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.				
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. Information on proposed projects (PSA in progress): ► GIS data that include project location (as a point); ► project size (typically acres); ► treatment types and activities; and ► contact information for a representative of the project proponent. The project proponent will provide information on the proposed project to the Board or CAL FIRE as early as feasible in the planning phase. The project proponent will provide this information to the Board or CAL FIRE with sufficient lead time to allow those agencies to make the information available to the public no later than two weeks prior to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website). Information on approved projects (PSA complete): ► A completed PSA Environmental Checklist; ► A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist); ► GIS data that include a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction). Information on completed projects: ► GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction) ► A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes ▪ Size of treated area (typically acres); ▪ Treatment types and activities; ▪ Dates of work; ▪ A list of the SPRs and mitigation measures that were implemented ▪ Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b). This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to, during, and following treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Aesthetic and Visual Resource Standard Project Requirements				
SPR AES-1 Vegetation Thinning and Edge Feathering: The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During mechanical and manual treatment activities	KCFD	KCFD
SPR AES-2: Avoid Staging within Viewsheds: The project proponent will store all treatment-related materials, including vehicles, vegetation treatment debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project proponent will also locate materials staging and storage areas outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR AES-3 Provide Vegetation Screening: The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During design of treatment	KCFD	KCFD
Air Quality Standard Project Requirements				
SPR AQ-1: Comply with Air Quality Regulations: The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR AQ-2: Submit Smoke Management Plan: The project proponent will submit a smoke management plan for all prescribed burns to the applicable air district, in accordance with 17 CCR Section 80160. Pursuant to this regulation a smoke management plan will not be required for burns less than 10 acres that also will not be conducted near smoke sensitive areas, unless otherwise directed by the air district. Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. Example of a smoke management plan is in Appendix PD-2. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to prescribed burn treatment activities	KCFD	KCFD
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. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels,	Initial Treatment: Y Treatment Maintenance: Y	Prior to prescribed burn treatment activities	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
tree mortality, predicted emissions, greenhouse gas emissions, and soil heating. The project proponent will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.				
SPR AQ-4 Minimize Dust: To minimize dust during treatment activities, the project proponent will implement the following measures: ▶ Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol. ▶ If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations. ▶ Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113. ▶ Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may "cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property," per Health and Safety Code Section 41700. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR AQ-6: Prescribed Burn Safety Procedures. Prescribed burns planned and managed by non-CAL FIRE crews will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP). The IAP will include the burn dates; burn hours; weather limitations; the specific burn prescription; a communications plan; a medical plan; a traffic plan; and special instructions such as minimizing smoke impacts to specific local roadways. The IAP will also assign responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations. This SPR applies only to	Initial Treatment: Y Treatment Maintenance: Y	During prescribed burn treatment activities	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
prescribed burning treatment activities and all treatment types, including treatment maintenance.				
Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements				
SPR CUL-1: Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
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. Using the appropriate Native Americans Contact List, the project proponent will notify the California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following: ► A written description of the treatment location and boundaries. Brief narrative of the treatment objectives. ► A description of the activities used (e.g., prescribed burning, mastication) and associated acreages. ► A map of the treatment area at a sufficient scale to indicate the spatial extent of activities. ► A request for information regarding potential impacts to cultural resources from the proposed treatment. ► A detailed description of the depth of excavation, if ground disturbance is expected. In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
SPR-CUL-3: Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
SPR CUL-4: Archaeological Surveys: The project proponent will coordinate with an archaeologically-trained resource professional and/or qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological or	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
historical resources near or within the treatment area. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
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. The project proponent, in consultation with culturally affiliated tribe(s), will develop effective protection measures for important cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, enforceable language, and will be included in the survey report in accordance with applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD
SPR CUL-6 Treatment of Tribal Cultural Resources: The project proponent, in consultation with the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. The project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. The project proponent will defer implementing the treatment until the tribe approves protection measures, or if agreement cannot be reached after a good-faith effort, the proponent determines that any or all feasible measures have been implemented, where feasible, and the resource is either avoided or protected. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD
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. Within a buffer of 100 feet of the built historical resource, there will be no prescribed burning or mechanical treatment activities Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a qualified archaeologist. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
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. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD
Biological Resources Standard Project Requirements				
SPR BIO-1: Review and Survey Project-Specific Biological Resources. The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment, no more than one year prior to the submittal of the PSA, and no more than one year between completion of the PSA and implementation of the treatment project. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this PEIR for the ecoregion(s) where the treatment will occur. It will also include review of the best available, current data for the area, including vegetation mapping data, species distribution/range information, CNDDB, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, relevant BIOS queries, and relevant general and regional plans. Reconnaissance-level biological surveys will be general surveys that include visual and auditory inspection for biological resources to help determine the environmental setting of a project site. The qualified surveyor will 1.) identify and document sensitive resources, such as riparian or other sensitive habitats, sensitive natural community, wetlands, or wildlife nursery site or habitat (including bird nests), and 2.) assess the suitability of habitat for special-status plant and animal species. The surveyor will also record any incidental wildlife observations. For each treatment project, habitat assessments will be completed at a time of year that is appropriate for identifying habitat and no more than one year prior to the submittal of the PSA, unless it can be demonstrated in the PSA that habitat assessments older than one year remain valid (e.g., site conditions are unchanged and no treatment activity has occurred since the assessment). If more than one year passes between completion of the PSA and initiation of the treatment project, the project proponent will verify the continued accuracy of the PSA prior to beginning the treatment project by reviewing for any data updates and/or visiting the site to verify conditions. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment: 1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided.** If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be	Initial Treatment: Y Treatment Maintenance: Y	Conduct data review and reconnaissance-level survey prior to treatment projects and no more than 1 year prior to submittal of the PSA for each treatment project	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
implemented prior to initiating treatment and will remain in effect throughout the treatment: a. by physically avoiding the suitable habitat, or b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites). c. Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist. 2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided.** Further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey requirements are presented for special-status plants in SPR BIO-7). This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
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. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. The training will instruct workers when it is appropriate to stop work and allow wildlife encountered during treatment activities to leave the area unharmed and when it is necessary to report encounters to a qualified RPF, biologist, or biological technician. The qualified RPF, biologist, or biological technician will immediately contact CDFW or USFWS, as appropriate, if any wildlife protected by the California Endangered Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (without being handled). This SPR	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
applies to all treatment activities and treatment types, including treatment maintenance.				
Sensitive Natural Communities and Other Sensitive Habitats				
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, the project proponent will: ▶ require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of *A Manual of California Vegetation* (including updated natural communities data at http://vegetation.cnps.org/), or referring to relevant reports (e.g., reports found on the VegCAMP website). ▶ map and digitally record, using a Global Positioning System (GPS), the limits of any potential sensitive habitat and sensitive natural community identified in the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
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 by implementing the following within riparian habitats: ▶ Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities. ▶ Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species. ▶ Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting;	Initial Treatment: Y Treatment Maintenance: Y	During design of treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements. ▶ Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service). ▶ Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided. ▶ Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. This will consist of the minimum disturbance area necessary to reduce hazardous fuels and return the riparian community to a natural fire regime (i.e., Condition Class 1) considering historic fire return intervals, climate change, and land use constraints. ▶ Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry. ▶ The project proponent will notify CDFW when required by California Fish and Game Code Section 1602 prior to implementing any treatment activities in riparian habitats. Notification will identify the treatment activities, map the vegetation to be removed, identify the impact avoidance identification methods to be used (e.g., flagging), and appropriate protections for the retention of shaded riverine habitat, including buffers and other applicable measures to prevent erosion into the waterway. ▶ In consideration of spatial variability of riparian vegetation types and condition and consistent with California Forest Practice Rules Section 916.9(v) (February 2019 version), a different set of vegetation retention standards and protection measures from those specified in the above bullets may be implemented on a site-specific basis if the qualified RPF and the project proponent demonstrate through substantial evidence that alternative design measures provide a more effective means of achieving the treatment goals objectives and would result in effects to the Beneficial Functions of Riparian Zones equal or more favorable than those expected to result from application of the above measures. Deviation from the above design specifications, different protection measures and design standards will only be approved when the treatment plan incorporates an evaluation of beneficial functions of the riparian habitat and with written concurrence from CDFW. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
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. An ecological definition of type conversion is used in the CalVTP PEIR for assessment of environmental effects: a change from a vegetation type dominated by native shrub species that are characteristic of chaparral and coastal sage scrub vegetation alliances to a vegetation type characterized predominantly by weedy herbaceous cover or annual grasslands. For the PEIR, type conversion is considered in terms of habitat function, which is defined here as the arrangement and capability of habitat features to provide refuge, food source, and reproduction habitat to plants and animals, and thereby contribute to the conservation of biological and genetic diversity and evolutionary processes (de Groot et al. 2002). Some modification of habitat characteristics may occur provided habitat function is maintained (i.e., the location, essential habitat features, and species supported are not substantially changed). During the reconnaissance-level survey required in SPR BIO-1, a qualified RPF or biologist will identify chaparral and coastal sage scrub vegetation to the alliance level and determine the condition class and fire return interval departure of the chaparral and/or coastal sage scrub present in each treatment area. For all treatment types in chaparral and coastal sage scrub, the project proponent, in consultation with a qualified RPF or qualified biologist will: ► Develop a treatment design that avoids environmental effects of type conversion in chaparral and coastal sage scrub vegetation alliances, which will include evaluating and determining the appropriate spatial scale at which the proponent would consider type conversion, and substantiating its appropriateness. The project proponent will demonstrate with substantial evidence that the habitat function of chaparral and coastal sage scrub would be at least maintained within the identified spatial scale at which type conversion is evaluated for the specific treatment project. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, spatial needs of sensitive species, presence of sufficient seed plants and nurse plants, light availability, and edge effects may inform the determination of an appropriate spatial scale. ► The treatment design will maintain a minimum percent cover of mature native shrubs within the treatment area to maintain habitat function; the appropriate percent cover will be identified by the project proponent in the development of treatment design and be specific to the vegetation alliances that are present in the identified spatial scale used to evaluate type conversion. Mature native shrubs that are retained will be distributed contiguously or in patches within the stand. If the stand consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity, to the extent needed to avoid type conversion. These SPR requirements apply to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During design of treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Additional measures will be applied to ecological restoration treatment types: ▶ For ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral and coastal sage scrub vegetation types. ▶ Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval (i.e., time since last burn is less than the average time listed as the fire return interval range in Table 3.6-1) unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved. ▶ A minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 60 percent, post treatment shrub canopy density will be no less than 40 percent). A different percent relative cover can be retained if the project proponent demonstrates with substantial evidence that alternative treatment design measures would result in effects on the habitat function of chaparral and coastal sage scrub that are equal or more favorable than those expected to result from application of the above measures. ▶ Biological considerations that may inform a deviation from the ▶ minimum 35 percent relative cover retention include but are not limited to soil moisture requirements, increased soil temperatures, changes in light/shading, presence of sufficient seed plants and nurse plants, erosion potential, and site hydrology. ▶ If the stand within the treatment area consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity. These SPR requirements apply to all treatment activities and only the ecosystem restoration treatment type, including treatment maintenance. A determination of compliance with the SB 1260 prohibition of type conversion in chaparral and coastal sage scrub is a statutory issue separate from CEQA compliance that may involve factors additional to the ecological definition and habitat functions presented in the PEIR, such as geographic context. It is beyond the legal scope of the PEIR to define SB 1260 type conversion and statutory compliance. The project proponent, acting as lead agency for the proposed later treatment project, will be responsible for defining type conversion in the context of the project and making the finding that type conversion would not occur, as required by SB 1260. The project proponent will determine its criteria for defining and avoiding type conversion and, in making its findings, may draw upon information presented in this PEIR.				
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 the following best management practices to prevent the spread of *Phytopthora* and other plant	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
pathogens (e.g., pitch canker (Fusarium), goldspotted oak borer, shot hole borer, bark beetle): ► clean and sanitize vehicles, equipment, tools, footwear, and clothes before arriving at a treatment site and when leaving a contaminated site, or a site in a county where contamination is a risk; ► include training on *Phytopthora* diseases and other plant pathogens in the worker awareness training; ► minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment; ► minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination; ► clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area; and ► follow the procedures listed in Guidance for plant pathogen prevention when working at contaminated restoration sites or with rare plants and sensitive habitat (Working Group for *Phytoptheras* in Native Habitats 2016). This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Special-Status Plants				
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." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special- status. If potentially occurring special-status plants are listed under CESA or ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS. For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.1 of this PEIR, surveys will not be required under the following circumstances: ► If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special- status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
▶ If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Invasive Plants and Wildlife				
SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. The project proponent will take the following actions to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (e.g., New Zealand mudsnail): ▶ clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife; ▶ for all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species; ▶ inspect all heavy equipment, vehicles, tools, or other treatment- related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas; ▶ stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area; ▶ identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatment methods will be selected based on the invasive species present and may include herbicide application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles; ▶ treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and ▶ implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (Cal-IPC 2012, or current version). This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Wildlife				
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, monarch overwintering sites) 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. The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	No more than 14 days prior to treatment projects	KCFD	KCFD, CDFW, and/or USFWS
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 will be defined by the qualified RPF or biologist. If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe	Initial Treatment: Y Treatment Maintenance: Y	Conduct a survey for common nesting birds (if needed) at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies (typically, up to 3 weeks before treatment); if an active nest is observed, implement avoidance strategies prior to and during treatment projects	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typically involving walking throughout the survey area, visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). If an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent will implement a feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following: ▶ **Establish Buffer.** The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. ▶ **Treatment activities will be implemented outside of the buffer.** The buffer location will be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. ▶ **Modify Treatment.** The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment modifications will be determined by the project proponent in coordination with the qualified RPF or biologist. ▶ **Defer Treatment.** The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. Feasible actions will be taken by the project proponent to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies will be determined by the project proponent based on whether implementation of this SPR will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. Considerations may include limitations on the presence of environmental and atmospheric conditions necessary to execute treatment prescriptions (e.g., the limited seasonal windows during which prescribed burning can occur when				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
vegetation moisture, weather, wind, and other physical conditions are suitable). If it is infeasible to avoid loss of common bird nests (not including raptor nests), the project proponent will document the reasons implementation of the avoidance strategies is infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). The following avoidance strategies may also be considered together with or in lieu of other actions for implementation by a project proponent to avoid disturbance to raptor nests: ► **Monitor Active Raptor Nest During Treatment.** A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors are showing signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases. ► **Retention of Raptor Nest Trees.** Trees with visible raptor nests, whether occupied or not, will be retained. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Geology, Soils, and Mineral Resource Standard Project Requirements				
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. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment projects, if there is a "chance" (30% or more) of rain within the next 24 hours	KCFD	KCFD
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. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. If use of heavy equipment is required in saturated areas, other measures such as operating on organic debris, using low ground pressure vehicles, or operating on frozen soils/snow covered soils will be implemented to minimize soil compaction. Existing compacted road surfaces are	Initial Treatment: Y Treatment Maintenance: Y	During treatment projects, if there is a "chance" (30% or more) of rain within the next 24 hours	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.				
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. If mechanical, prescribed herbivory, or prescribed burn treatment activities could result in substantial sediment discharge from soil disturbed by machinery, animal hooves, or being bare, organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical, prescribed herbivory, and prescribed burns that result in exposure of bare soil over 50 percent of the project area treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During mechanical, prescribed herbivory, and prescribed burn activities that result in exposure of bare soil over 50% or more of the treatment area	KCFD	KCFD
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. If erosion control measures are not properly implemented, they will be remediated prior to the first rainfall event per SPR GEO-3 and GEO-8. Additionally, the project proponent will inspect for evidence of erosion after the first large storm or rainfall event (i.e., ≥ 1.5 inches in 24 hours) as soon as is feasible after the event. Any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours per the methods stated in SPRs GEO-3 and GEO-8. This SPR applies only to mechanical, prescribed herbivory, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Inspect treatment areas for the proper implementation of erosion control SPRs and MMs prior to the rainy season; if erosion control measures are not properly implemented, remediate prior to the first rainfall event; inspect for evidence of erosion after the first large storm or rainfall event (i.e., greater than or equal to 1.5 inches in 24 hours) as soon as is feasible after the event; any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
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 (February 2019 version). Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface run-off to be concentrated on downslopes, other erosion controls will be installed as needed to maintain site productivity by minimizing soil loss. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During mechanical, manual, and prescribed burn treatment activities	KCFD	KCFD
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. In addition, burn piles will not occupy more than 15 percent of the total treatment area (Busse et al. 2014). The project proponent will not locate burn piles in a Watercourse and Lake Protection Zone as defined in SPR HYD-4. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During mechanical, manual, and prescribed burn treatment activities	KCFD	KCFD
SPR GEO-7: Minimize Erosion: To minimize erosion, the project proponent will: (1) Prohibit use of heavy equipment where any of the following conditions are present: (i) Slopes steeper than 65 percent. (ii) Slopes steeper than 50 percent where the erosion hazard rating is high or extreme. (iii) Slopes steeper than 50 percent that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake. (2) On slopes between 50 percent and 65 percent where the erosion hazard rating is moderate, and all slope percentages are for average slope steepness based on sample areas that are 20 acres, or less, heavy equipment will be limited to: (i) Existing tractor roads that do not require reconstruction, or (ii) New tractor roads flagged by the project proponent prior to the treatment activity. (3) Prescribed herbivory treatments will not be used in areas with over 50 percent slope. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
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). If unstable areas or soils are identified within the treatment area, are unavoidable, and will be potentially directly or indirectly affected by the treatment, a licensed geologist (P.G. or C.E.G.) will determine the potential for landslide, erosion, of other issue	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment projects with slopes greater than 50 percent	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
related to unstable soils and identity measures (e.g., those in SPR GEO-7) that will be implemented by the project proponent such that substantial erosion or loss of topsoil would not occur. This SPR applies only to mechanical treatment activities and WUI fuel reduction, non- shaded fuel breaks, and ecological restoration treatment types, including treatment maintenance.				
Hazardous Material and Public Health and Safety Standard Project Requirements				
SPR HAZ-1: Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. Prior to the start of treatment activities, the project proponent will inspect all equipment for leaks and inspect everyday thereafter until equipment is removed from the site. Any equipment found leaking will be promptly removed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Inspect all equipment for leaks prior to treatment projects; inspect everyday thereafter until equipment is removed from the site; promptly remove any leaking equipment; maintain all diesel- and gasoline-powered equipment per manufacturer's specifications and in compliance with all federal and state emissions requirements during treatment projects	KCFD	KCFD
SPR HAZ-2: Require Spark Arrestors: The project proponent will require mechanized hand tools to have federal- or state-approved spark arrestors. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During manual treatment activities	KCFD	KCFD
SPR HAZ-3: Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During manual treatment activities	KCFD	KCFD
SPR HAZ-4: Prohibit Smoking in Vegetated Areas: The project proponent will require that smoking is only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR HAZ-5: Spill Prevention and Response Plan: The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to provide protection to onsite workers, the public, and the	Initial Treatment: Y	Prepare SPRP prior to beginning any herbicide treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. The SPRP will include (but not be limited to): ► a map that delineates staging areas, and storage, loading, and mixing areas for herbicides; ► a list of items required in an onsite spill kit that will be maintained throughout the life of the activity; ► procedures for the proper storage, use, and disposal of any herbicides, adjuvants, or other chemicals used in vegetation treatment. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	Treatment Maintenance: Y	activities; implement measures during herbicide treatment activities		
Hydrology and Water Quality Standard Project Requirements				
SPR HYD-1: Comply with Water Quality Regulations: Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR HYD-2: Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD
SPR HYD-4: Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is based on 14 CCR Section 916 .5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.	Initial Treatment: Y Treatment Maintenance: Y	Establish WLPZs during design of treatment projects; implement WLPZ protections during treatment projects	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity

Procedures for Determining Watercourse and Lake Protection Zone (WLPZ) widths

Water Class	Class I	Class II	Class III
Water Class Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.	1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for nonfish aquatic species. 3) Excludes Class III waters that are tributary to Class I waters.	No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high-water flow conditions after completion of timber operations.
WLPZ Width (ft) – Distance from top of bank to the edge of			
< 30 % Slope	100	50	Sufficient to prevent the degradation of downstream beneficial uses of water. Determined on a site-specific basis.
30-50 % Slope	100	75	
>50 % Slope	100	100	

Source: 14 CCR Section 916.5 [936.5, 956.5] (February 2019 version)

The following WLPZ protections will be applied for all treatments:

- Treatment activities with WLPZs will retain at least 75 percent surface cover and undisturbed area to act as a filter strip for raindrop energy dissipation and for wildlife habitat. If this percentage is reduced a qualified RPF will provide the project proponent with a site- and/or treatment activity-specific explanation for the percent surface cover reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced percent as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Completion Report). This requirement is based on 14 CCR Section 916.4 [936.4, 956.4] Subsection (b)(6) (February 2019 version) and 14 CCR Section 916.5 (February 2019 version). ▶ Equipment, including tractors and vehicles, must not be driven in wet areas or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry. ▶ Equipment used in vegetation removal operations will not be serviced in WLPZs, within wet meadows or other wet areas, or in locations that would allow grease, oil, or fuel to pass into lakes, watercourses, or wet areas. ▶ WLPZs will be kept free of slash, debris, and other material that harm the beneficial uses of water. Accidental deposits will be removed immediately. ▶ Burn piles will be located outside of WLPZs. ▶ No fire ignition (nor use of associated accelerants) will occur within WLPZs however low intensity backing fires may be allowed to enter or spread into WLPZs. ▶ Within Class I and Class II WLPZs, locations where project operations expose a continuous area of mineral soil 800 square feet or larger shall be treated for reduction of soil loss. ▶ Treatment shall occur prior to October 15th and disturbances that are created after October 15th shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies and may include but are not limited to mulching, rip-rap, grass seeding, or chemical soil stabilizers. ▶ Where mineral soil has been exposed by project operations on approaches to watercourse crossings of Class I, II, or III within a WLPZ, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse. ▶ Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes. ▶ Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR HYD-6: Protect Existing Drainage Systems: If a treatment activity is adjacent to a roadway with stormwater drainage infrastructure, the existing stormwater drainage infrastructure will be marked prior to ground disturbing activities. If a drainage structure or infiltration system is inadvertently disturbed or modified during project activities, the project proponent will coordinate with owner of the	Initial Treatment: Y Treatment Maintenance: Y	Mark existing stormwater drainage infrastructure prior to ground-disturbing activities; if a	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
system or feature to repair any damage and restore pre-project drainage conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.		drainage structure or infiltration system is inadvertently disturbed or modified during treatment, coordinate with owner to repair damage and restore pre-project drainage conditions		
Noise Standard Project Requirements				
SPR NOI-1: Limit Heavy Equipment Use to Daytime Hours: The project proponent will require that operation of heavy equipment associated with treatment activities (heavy off-road equipment, tools, and delivery of equipment and materials) will occur during daytime hours if such noise would be audible to receptors (e.g., residential land uses, schools, hospitals, places of worship). Cities and counties in the treatable landscape typically restrict construction-noise (which would apply to vegetation treatment noise) to particular daytime hours. If the project proponent is subject to local noise ordinance, it will adhere to those to the extent the project is subject to them. If the applicable jurisdiction does not have a noise ordinance or policy restricting the time-of- day when noise-generating activity can occur noise-generating vegetation treatment activity will be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday and federal holidays. If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR NOI-2 Equipment Maintenance: The project proponent will require that all powered treatment equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR NOI-4: Locate Staging Areas Away from Noise-Sensitive Land Uses: The project proponent will locate treatment activities, equipment, and equipment staging areas away from nearby noise- sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship),	Initial Treatment: Y	During treatment	KCFD	KCFD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
to the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Treatment Maintenance: Y			
SPR NOI-5: Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to mechanical treatment activities within 1,500 feet of noise-sensitive receptors	KCFD	KCFD
Recreation Standard Project Requirements				
SPR REC-1: Notify Recreational Users of Temporary Closures. If a treatment activity would require temporary closure of a public recreation area or facility, the project proponent will coordinate with the owner/manager of that recreation area or facility. If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Approximately 2 weeks prior to treatment projects requiring temporary closure of public recreation areas or facilities	KCFD	KCFD and Kern County Administrative Officer (or equivalent official responsible for distribution of public information)
Transportation Standard Project Requirements				
SPR TRAN-1: Implement Traffic Control during Treatments: Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the CalVTP. Measures included in the TMP could include (but are not be limited to) construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities, flaggers for lane closures to provide temporary	Initial Treatment: Y Treatment Maintenance: Y	If needed, prepare TMP prior to treatment projects and implement during project treatments	KCFD	KCFD and agency(ies) with jurisdiction over affected roadways

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
traffic control along affected roadway facilities, treatment schedule restrictions to avoid seasons or time periods of peak vehicle traffic, haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of vegetation treatment projects. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Air Quality				
Mitigation Measure 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. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible. Techniques for reducing emissions may include, but are not limited to, the following: ▶ Diesel-powered off-road equipment used in construction will meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment. ▶ Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria: ▪ meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer; ▪ be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables; ▪ contain no fatty acids or functionalized fatty acid esters; and ▪ have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines. ▶ Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment. ▶ Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes. ▶ Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NOX and PM.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Archaeological, Historical, and Tribal Cultural Resources				
Mitigation Measure 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 archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.	Initial Treatment: Y Treatment Maintenance: Y	During treatment	KCFD	KCFD
Biological Resources				
Mitigation Measure 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), exceptions to this requirement are listed later in this measure. The no-disturbance buffers will generally be a minimum of 50 feet from listed plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid killing or damaging listed plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate buffer size will be determined based on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. For example, paint-on or wicking application of herbicides to invasive plants may be implemented within 50 feet of listed plant species without posing a risk, especially if the listed plants are dormant at the time of application. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 50 feet from a listed plant, a qualified RPF or botanist will provide the project	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report) with a science-based justification for the deviation. No fire ignition (and associated use of accelerants) will occur within 50 feet of listed plants. For species listed under ESA or CESA, if the project proponent cannot avoid loss by implementing no-disturbance buffers, the project proponent will implement Mitigation Measure BIO-1c. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist, in consultation with CDFW and USFWS, as appropriate depending on species status and location, that the listed plants would benefit from treatment in the occupied habitat area even though some of the listed plants may be lost during treatment activities. For a treatment to be considered beneficial to listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to listed plants, no compensatory mitigation for loss of individuals will be required.				
Mitigation Measure 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 the following measures to avoid loss of individuals and maintain habitat function of occupied habitat: ▶ Physically avoid the area occupied by the special-status plants by establishing a no-disturbance buffer around the area occupied by species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damaging to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate size and shape of the buffer zone will be determined by a qualified RPF or botanist and will depend on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
plants and noxious weeds may inform an appropriate buffer size and shape. ▶ Treatments may be conducted within this buffer if the potentially affected special-status plant species is a geophytic, stump- sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank. ▶ Treatments will be designed to maintain the function of special-status plant habitat. For example, for a fuel break proposed in treatment areas occupied by special-status plants, if the removal of shade cover would degrade the special-status plant habitat despite the requirement to physically or seasonally avoid the special-status plant itself, habitat function would be diminished and the treatment would need to be modified or precluded from implementation. ▶ No fire ignition (nor use of associated accelerants) will occur within the special-status plant buffer. A qualified RPF or botanist with knowledge of the special-status plant species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment would not maintain habitat function of the special-status plant habitat (i.e., the habitat would be rendered unsuitable) or because the loss of special-status plants would substantially reduce the number or restrict the range of a special- status plant species. If the project proponent determines the impact on special-status plants would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status plants or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-1c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the special-status plants would benefit from treatment in the occupied habitat area even though some of the non-listed special-status plants may be killed during treatment activities. For a treatment to be considered beneficial to non-listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Mitigation Measure 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. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. 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. The first priority for compensatory mitigation will be preserving and enhancing existing populations outside of the treatment area in perpetuity, or if that is not an option because existing populations that can be preserved in perpetuity are not available, one of the following mitigation options will be implemented by the project proponent instead: ▶ creating populations on mitigation sites outside of the treatment area through seed collection and dispersal (annual species) or transplantation (perennial species); ▶ purchasing mitigation credits from a CDFW- or USFWS-approved conservation or mitigation bank in sufficient quantities to offset the loss of occupied habitat; and ▶ if the affected special-status plants are not listed under ESA or CESA, compensatory mitigation may include restoring or enhancing degraded habitats so that they are made suitable to support special-status plant species in the future. If relocation efforts are part of the Compensatory Mitigation Plan, the plan will include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements. The following performance standards will be applied for relocation: ▶ the extent of occupied area will be substantially similar to the affected occupied habitat and will be suitable for self-producing populations. Re-located/re-established populations will be considered suitable for self-producing when: ▶ habitat conditions allow for plants to reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and ▶ reestablished habitats contain an occupied area comparable to existing occupied habitat areas in similar habitat types in the region. If preservation of existing populations or creation of new populations is part of the mitigation plan, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands and actions (e.g., the number and type of credits, location of mitigation bank or easement, restoration or enhancement actions), parties responsible for the long-term management of the land, and the legal and funding	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
mechanisms (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. If mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, funding assurances, and success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations. If mitigation includes restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. If the loss of occupied habitat cannot be offset (e.g., if preservation of existing populations or creation of new populations through relocation efforts are not available for a certain species), and as a result, treatment activities would substantially reduce the number or restrict the range of listed plant species, then the treatment will not qualify as within the scope of this PEIR. 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.				
Mitigation Measure BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities) If California Fully Protected Species or species listed under ESA or CESA 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 adverse effects to the species by implementing the following. <u>Avoid Mortality, Injury, or Disturbance of Individuals</u> The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals: 1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied habitat such that mortality, injury, or disturbance of the species will not occur, as determined by a qualified RPF or biologist using the most current and commonly-accepted science and considering published agency guidance; OR 2. Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD, CDFW, and/or USFWS/ NOAA Fisheries

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species. ▶ For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c. ▶ Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided. <u>Maintain Habitat Function</u> ▶ The project proponent will design treatment activities to maintain the habitat function, by implementing the following: ▪ While performing review and surveys for SPR BIO-1 and SPR BIO- 10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▪ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained. ▶ A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If consultation determines that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Mitigation Measure 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 by implementing the following. <u>Avoid Mortality, Injury, or Disturbance of Individuals</u> ▶ The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals: ▪ For all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around occupied sites (e.g., nests, dens, roosts, middens, burrows, nurseries). Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance; however, buffers will generally be a minimum of 100 feet, unless site conditions indicate a smaller buffer would be sufficient for protection or a larger buffer would be needed. Factors to be considered in determining buffer size will include, but not be limited to, the species' tolerance to disturbance; the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; baseline levels of noise and human activity; and treatment activity. Buffer size may be adjusted if the qualified RPF or biologist determines that such an adjustment would not be likely to adversely affect (i.e., cause mortality, injury, or disturbance to) the species within the nest, den, burrow, or other occupied site. If a no-disturbance buffer is reduced below 100 feet from an occupied site, a qualified RPF or biologist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). ▪ No-disturbance buffers will be marked with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). No activity will occur within the buffer areas until the qualified RPF or biologist has determined that the young have fledged or dispersed; the nest, den, or other occurrence is no longer active; or reducing the buffer would not likely result in disturbance, mortality, or injury. A qualified RPF, biologist, or biological technician will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD, CDFW, and/or USFWS

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
activities that could result in mortality, injury or disturbance to special- status species. ▪ For prescribed burning, the project proponent will implement the treatment outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, the qualified RPF or biologist will determine the period of time within which prescribed burning could occur that will avoid or minimize mortality, injury, or disturbance of the species. The project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate limited operating periods. <u>Maintain Habitat Function</u> ▶ For all treatment activities, the project proponent will design treatment activities to maintain the habitat function by implementing the following: ▪ While performing review and surveys for SPR BIO-1 and SPR BIO- 10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; tree snags; large raptor nests [including inactive nests]; downed woody debris). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▪ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that special-status wildlife with specific requirements for high canopy cover (e.g., northern goshawk, Sierra Nevada snowshoe hare) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted) such that the habitat function is maintained. ▪ A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding habitat function. A qualified RPF or biologist with knowledge of the special-status wildlife species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status wildlife species' habitat or because the loss of special-status wildlife would substantially reduce the number or restrict the range of a special-status wildlife species. If the				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
project proponent determines the impact on special-status wildlife would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status wildlife or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the non-listed 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. For a treatment to be considered beneficial to non-listed special-status wildlife, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non- listed special-status species would benefit from the treatment.				
Mitigation Measure 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. Compensation may include: 1. Preserving existing habitat outside of the treatment area in perpetuity; this may entail purchasing mitigation credits and/or lands from a CDFW- or USFWS-approved entity in sufficient quantity to offset the residual significant impacts, generally at a ratio of 1:1 for habitat; and 2. Restoring or enhancing existing habitat within the treatment area or outside of the treatment area (including decommissioning roads, adding perching structures, removing existing perching structures, or removing existing movement barriers or other existing features that are adversely affecting the species). The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD, CDFW, and/or any other applicable responsible agency

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
(e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanisms for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. Review requirements are as follows: ▶ The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. ▶ For species listed under ESA or CESA or a California Fully Protected Species, the project proponent will submit the mitigation plan to CDFW and/or USFWS/NOAA Fisheries for review and comment. ▶ For other special-status wildlife species the project proponent may consult with CDFW and/or USFWS regarding the availability and applicability of compensatory mitigation and other related technical information. 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.				
Mitigation Measure BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities) If federally listed butterflies are identified as occurring or having potential to occur during review and surveys for SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, then the following measures will be implemented: ▶ Treatment areas within the range of these species will be surveyed for the host plant for each species (Table 3.6-34). ▶ Host plants for federally listed butterflies within the occupied habitat will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants. ▶ Because prescribed herbivory could result in the indiscriminate removal of the host plants for federally listed butterflies, this treatment type will not be used within occupied habitat of any federally listed butterfly species, unless it is known that the host plant is unpalatable to the herbivore. ▶ Treatment areas that are not occupied but are within the range of the federally listed butterfly will be divided into as many treatment units as feasible such that the entirety of the habitat is not treated within the same year.	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD, CDFW, and/or any other applicable responsible agency

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity

- Treatments will be conducted in a patchy pattern to the extent feasible in areas that are not occupied but are within the range of the federally listed butterfly, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained.

If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of federally listed butterflies or degradation of occupied habitat (host plants) such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.

CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed butterflies or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

Table 3.6-34 Special-status Butterflies and Associated Host Plants

Butterfly Species	Host Plants
bay checkerspot butterfly	dwarf plantain (*Plantago virginica*), purple owl's clover (*Castilleja exserta*)
Behren's silverspot butterfly	blue violet (*Viola adunca*)
callippe silverspot butterfly	California golden violet (*Viola pedunculata*)
Carson wandering skipper	salt grass (*Distichlis spicata*)
El Segundo blue butterfly	seacliff buckwheat (*Eriogonum parvifolium*)
Hermes copper butterfly	spiny redberry (*Rhamnus crocea*)
Kern primrose sphinx moth	plains evening-primrose (*Camissonia contorta*), field primrose (*Camissonia campestris*)
Laguna Mountains skipper	Cleveland's horkelia (*Horkelia clevelandii*), sticky cinquefoil (*Drymocallis glandulosa*)
Lange's metalmark butterfly	naked-stemmed buckwheat (*Eriogonum nudum*)
lotis blue butterfly	seaside bird's foot trefoil (*Hosackia gracilis*)
Mission blue butterfly	lupine (*Lupinus* spp.)

Mitigation Measures		Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Myrtle's silverspot butterfly	blue violet				
Oregon silverspot butterfly	blue violet				
Palos Verdes blue butterfly	Santa Barbara milkvetch (*Astragalus trichopodus*), common deerweed (*Acmispon glaber*)				
San Bruno elfin butterfly	broadleaf stonecrop (*Sedum spathulifolium*), manzanita (*Arctostaphylos* spp.), huckleberry (*Vaccinuum* spp.)				
Smith's blue butterfly	seacliff buckwheat, seaside buckwheat (*Eriogonum latifolium*)				
Quino checkerspot butterfly	dwarf plantain, purple owl's clover				

Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA, because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status butterflies or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented.

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 species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources). If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.

Mitigation Measure 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:	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
▶ Reference the *Manual of California Vegetation*, Appendix 2, Table A2, Fire Characteristics (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/) or other best available information to determine the natural fire regime of the specific sensitive natural community type (i.e., alliance) present. The condition class and fire return interval departure of the vegetation alliances present will also be determined.				
▶ Design treatments in sensitive natural communities and oak woodlands to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function of the affected sensitive natural community. Treatments will be designed to replicate the fire regime attributes for the affected sensitive natural community or oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fireline intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/). Treatments will not be implemented in sensitive natural communities that are within their natural fire return interval (i.e., time since last burn is less than the average time required for that vegetation type to recover from fire) or within Condition Class 1.				
▶ To the extent feasible, no fuel breaks will be created in sensitive natural communities with rarity ranks of S1 (critically imperiled) and S2 (imperiled).				
▶ To the extent feasible, fuel breaks will not remove more than 20 percent of the native vegetation relative cover from a stand of sensitive natural community vegetation in sensitive natural communities with a rarity rank of S3 (vulnerable) or in oak woodlands. In forest and woodland sensitive natural communities with a rarity rank of S3, and in oak woodlands, only shaded fuel breaks will be installed, and they will not be installed in more than 20 percent of the stand of sensitive natural community or oak woodland vegetation (i.e., if the sensitive natural community covers 100 acres, no more than 20 acres will be converted to create the fuel break).				
▶ Use prescribed burning as the primary treatment activity in sensitive natural communities that are fire dependent (e.g., closed-cone forest and woodland alliances, chaparral alliances characterized by fire-stimulated, obligate seeders), to the extent feasible and appropriate based on the fire regime attributes as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/).				
▶ Time prescribed herbivory to occur when non-target vegetation is not susceptible to damage (e.g. non-target vegetation is dormant or has completed its reproductive cycle for the year). For example, use herbivores to control invasive plants growing in sensitive habitats or sensitive natural communities when sensitive vegetation is dormant but invasive plants are growing. Timing of herbivory to avoid non-target vegetation will be determined by a qualified botanist, RPF, or biologist based on the specific vegetation alliance being treated, the life forms and life				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
conditions of its characteristic plant species, and the sensitivity of the non-target vegetation to the effects of herbivory. The feasibility of implementing the avoidance measures will be determined by the project proponent based on whether implementation of this mitigation measure will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. If the avoidance measures are determined by the project proponent to be infeasible, the project proponent will document the reasons implementation of the avoidance strategies are infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). A qualified RPF or botanist with knowledge of the affected sensitive natural community will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat functions of the sensitive natural community or oak woodland. If the project proponent determines the impact on sensitive natural communities or oak woodlands would be less than significant, no further mitigation will be required. If the project proponent determines that the loss or degradation of sensitive natural communities or oak woodlands would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-3b will be implemented. 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. For a treatment to be considered beneficial to a sensitive natural community or oak woodland, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the community (or similar community) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.				
Mitigation Measure 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 implement the following actions: ▶ Compensate for unavoidable losses of sensitive natural community and oak woodland acreage and function by: ▪ restoring sensitive natural community or oak woodland functions and acreage within the treatment area;	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD, CDFW, and/or any other applicable responsible agency

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
▪ restoring degraded sensitive natural communities or oak woodlands outside of the treatment area at a sufficient ratio to offset the loss of acreage and habitat function; or ▪ preserving existing sensitive natural communities or oak woodlands of equal or better value to the sensitive natural community lost through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function. ▶ 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, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan.				
Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat If, after implementation of SPR BIO-4, impacts to riparian habitat remain significant under CEQA, the project proponent will implement the following: ▶ Compensate for unavoidable losses of riparian habitat acreage and function by: ▪ restoring riparian habitat functions and acreage within the treatment area; ▪ restoring degraded riparian habitat outside of the treatment area; ▪ purchasing riparian habitat credits at a CDFW-approved mitigation bank; or ▪ preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value.	Initial Treatment: Y Treatment Maintenance: Y	Prior to treatment	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on riparian habitat that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing riparian habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. 2. For restoring or enhancing riparian habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. 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.				
Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands Impacts to wetlands will be avoided using the following measures: ▶ The qualified RPF or biologist will delineate the boundaries of federally protected wetlands according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and the appropriate regional supplement for the ecoregion in which the treatment is being implemented. ▶ The qualified RPF or biologist will delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (California Water Boards 2019 or current procedures). ▶ A qualified RPF or biologist will establish a buffer around wetlands and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The buffer will be a minimum width of 25 feet but may be larger if deemed necessary. The appropriate size and shape of the buffer zone will be determined in coordination with the qualified RPF or biologist and will depend on the type of wetland	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment activities	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
present (e.g., seasonal wetland, wet meadow, freshwater marsh, vernal pool), the timing of treatment (e.g., wet or dry time of year), whether any special-status species may occupy the wetland and the species' vulnerability to the treatment activities, environmental conditions and terrain, and the treatment activity being implemented. ▶ A qualified RPF or biological technician will periodically inspect the materials demarcating the buffer to confirm that they are intact and visible, and wetland impacts are being avoided. ▶ Within this buffer, herbicide application is prohibited. ▶ Within this buffer, soil disturbance is prohibited. Accordingly, the following activities are not allowed within the buffer zone: mechanical treatments, prescribed herbivory, equipment and vehicle access or staging. ▶ Only prescribed (broadcast) burning may be implemented in wetland habitats if it is determined by a qualified RPF or biologist that: ▪ No special-status species are present in the wetland habitat ▪ The wetland habitat function would be maintained. ▪ The prescribed burn is within the normal fire return interval for the wetland vegetation types present ▪ Fire containment lines and pile burning are prohibited within the buffer ▪ No fire ignition (and associated use of accelerants) will occur within the wetland buffer				
Mitigation Measure BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites The project proponent will implement the following measures while working in treatment areas that contain nursery sites identified in surveys conducted pursuant to SPR BIO-10: ▶ **Retain Known Nursery Sites.** A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment. ▶ **Establish Avoidance Buffers.** The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and after treatment activities will be required. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to special-status species.	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment activities	KCFD	KCFD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Greenhouse Gas Emissions				
Mitigation Measure GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns When planning for and conducting a prescribed burn, project proponents implementing a prescribed burn will incorporate feasible methods for reducing GHG emissions, including the following, which are identified in the National Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire (NWCG 2018): ▶ reduce the total area burned by isolating and leaving ▶ large fuels (e.g., large logs, snags) unburned; reduce the total area burned through mosaic burning; burn when fuels have a higher fuel moisture content; reduce fuel loading by removing fuels before ignition. ▶ Methods to remove fuels include mechanical treatments, manual treatments, prescribed herbivory, and biomass utilization; and ▶ schedule burns before new fuels appear. As the science evolves, other feasible methods or technologies to sequester carbon could be incorporated, such as conservation burning, a technique for burning woody material that reduces the production of smoke particulates and carbon released into the atmosphere and generates more biochar. Biochar is produced from the material left over after the burn and spread with compost to increase soil organic matter and soil carbon sequestration. Technologies to reduce greenhouse gas emissions may also include portable units that perform gasification to produce electricity or pyrolysis that produces biooil that can be used as liquid fuel and/or syngas that can be used to generate electricity. 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.	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during prescribed burn activities	KCFD	KCFD

This page intentionally left blank.