Project Specific Analysis and Addendum to the CalVTP PEIR
Project Number: 2024-16

Evacuation and Hazardous Fuels Reduction Project

July 2024

Prepared for:

Gold Ridge Fire Protection District
4500 Hessel Road, Sebastopol, CA 95472

Gold Ridge Fire Protection District

Coast Ridge Community Forest
PO Box 139, Cazadero, CA 95421

coast ridge
COMMUNITY FOREST

Prepared by:

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FORESTRY CONSULTANTS

Contents

List of Abbreviations

ASR	Archaeological Survey Report
CAL FIRE	California Department of Forestry and Fire Protection
CalVTP	California Vegetation Treatment Program
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWHR	California Wildlife Habitat Relationships
DBH	Diameter at Breast Height
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESHA	Environmentally Sensitive Habitat Area
ERA	Ecological Restoration Treatment Area
FRAP	CAL FIRE's Fire and Resource Assessment Program
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HCP	Habitat Conservation Plan
IPC	Invasive Plant Council
LTO	Licensed Timber Operator
LTS	Less than significant
LTSM	Less than significant without mitigation incorporated
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
ND	Negative Declaration
PEIR	Programmatic Environmental Impact Report
PPE	Personal Protective Equipment
PRC	Public Resources Code
PS	Potentially Significant
PSA	Project Specific Analysis
RPF	Registered Professional Forester
RWQCB or RB 1	Regional Water Quality Control Board
SENL	Single Event Noise Level
SOD	Sudden Oak Death
SPR	Standard Project Requirements
SRA	State Responsibility Area
SSC	Species of Special Concern
SVM	Sonoma Veg Map
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
WDR	Waste Discharge Requirements
WL	Watch List
WLPZ	Watercourse and Lake Protection Zone
WUI	Wildland Urban Interface

1: INTRODUCTION

Over the past couple of centuries, wildland ecosystems in the western United States, particularly in California, have experienced significant changes due to shifts in land management and climate conditions. These changes have resulted in larger, more costly, and catastrophic wildfires, impacting communities and increasing the urgency to manage forests for resiliency and health. Experts agree that California's forests are overstocked and undermanaged, with altered disturbance regimes creating more fire-prone and less fire-tolerant vegetative communities.

The Coast Ridge Community Forest (CRCF) implemented a shaded fuelbreak along Fort Ross Road with funding from the County of Sonoma Vegetation Management Grant Program. In 2021, the CRCF applied for and received funding from CAL FIRE's Fire Protection Grant Program to extend shaded fuelbreaks onto the private community roads: The Evacuation and Hazardous Fuel Reduction Project (21-FP-LNU-0109). This project was developed to:

- Prevent and/or reduce significance of potential wildfire by reducing fuel loads
- Protect rural communities by enhancing community-wide ingress and egress routes
- Promote ecosystem health and carbon storage
- Restore conifer forests and oak woodlands

CEQA and Document Purpose

The California Vegetation Treatment Program (CalVTP) is a statewide program by which public agencies perform vegetation treatment activities for the purposes of preventing catastrophic wildfire. The CalVTP Programmatic Environmental Impact Report (PEIR) provides a powerful tool to enable expedited environmental review for projects that both follow the CalVTP treatment guidelines and implement an array of carefully crafted avoidance, minimization, and mitigation actions to ensure that implementation does not result in significant impacts to natural resources. The PEIR was certified in 2019 as a document compliant with the California Environmental Quality Act (CEQA). This PEIR offers an array of permittable vegetation treatments that allow for ecological restoration, forest health treatments, and other vegetation treatments aimed at reducing the risk of wildfire and increasing ecological resilience. Compliance with the PEIR requires preparation and submission of a Project Specific Analysis (PSA).

For purposes of CEQA, the Gold Ridge Fire Protection District (GRFD) is the project proponent and acting as the lead agency for the preparation of the PSA/Addendum. The GRFD is both responsible for reviewing the PSA. GRFD approval will be completed through a resolution by the GRFD Board. This document serves as both a PSA and an Addendum to the CalVTP PEIR for GRFD review and analysis under CEQA for the treatments proposed. The PSA must demonstrate how the project will comply with Standard Project Requirements and Mitigation Measures from the PEIR. If a proposed vegetation treatment project is covered by the evaluation of environmental effects in the PEIR, it may be approved by a lead or responsible agency using a finding that the project is within the scope of the PEIR for its CEQA compliance, consistent with CEQA Guidelines Section 15168(c)(2).

Among the other criteria for determining whether a treatment project is within the scope of the CalVTP PEIR is whether it is within the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the PEIR) or includes changed circumstances from those described 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 CEQA Guidelines Section 15168(C)(2). The project-specific mitigation monitoring and reporting program, which identifies the CalVTP standard project requirements (SPRs) and mitigation measures applicable to the proposed project, is provided in Attachment A.

Portions of the proposed project treatment areas extend outside of the CalVTP treatable landscape as mapped in GIS. In total, the area outside (but contiguous to) the treatable landscape is 40 acres. Treating these areas will expand the connectivity of ecologically restorative treatments in vegetative and landscape conditions that are essentially the same or substantially similar to those within the treatable landscapes. Per the PEIR, if the areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or substantially similar, landscape conditions as the treatable landscape, the environmental analysis of the PEIR would be applicable. (More on current vegetation in the project area in Attachment B – Biological Resources, below.)

As per the PEIR (CalVTP Final PEIR Volume II Appendix PD-1) the treatable landscapes were developed using three Geographic Information Systems (GIS)-based analyses that compared state responsibility area (SRA), applicable treatment types (WUI fuel reduction, fuel breaks, and ecological restoration), and vegetated landscapes dominated by tree, shrub, or grass plant communities. Because this methodology was coarsely applied to the entirety of California, it did not allow high mapping resolution and omitted locations that could otherwise have been included. Additionally, forest type vegetation in the project area is slowly returning after decades of clearing for ranching activities.

2: MAPS

See below.

Evacuation Route and Hazardous Fuels Reduction Project

Evacuation Route and Hazardous Fuels Reduction Project

Evacuation Route and Hazardous Fuels Reduction Project

coast ridge COMMUNITY FOREST

Gold Ridge Fire Protection District

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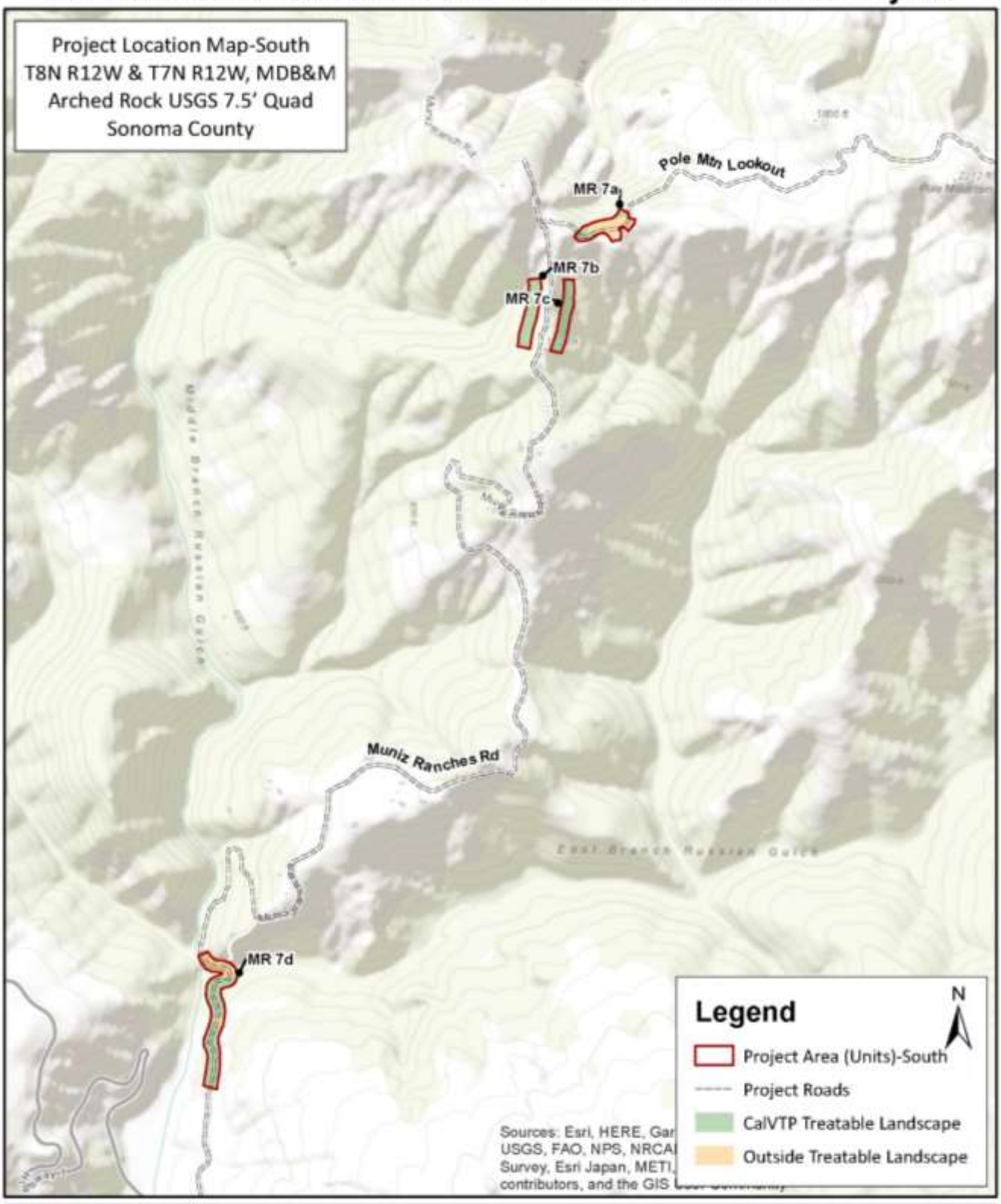
1:24,000

Forestry & Biological

Evacuation Route and Hazardous Fuels Reduction Project



3: ENVIRONMENTAL CHECKLIST

VEGETATION TREATMENT PROJECT INFORMATION

Project Title:

Evacuation Route and Hazardous Fuels Reduction Project

CalVTP Project Number: 2024-16

Project Proponent's Names and Addresses:

(CEQA Lead) Gold Ridge Fire Protection District: 4500 Hessel Road Sebastopol, CA 95472
Coast Ridge Community Forest: P.O. Box 139, Cazadero, CA 95421

Contact Person Information and Phone Number:

Judy Rosales (CRCF), 707-847-3944

Project Location:

Portions of 7 roadsides (private roads) in Sonoma County;
Center of area: -123.162685, 38.532876

Total Area to be Treated:

Up to 165 acres.

Description of Project:

(with references to the CalVTP PEIR; for example, (2-7) =Chapter 2-Page 7)

This is Phase II (Treatment and Maintenance) of recently completed (2021-2023) grant funded work designed to use shaded fuel breaks to enhance community-wide ingress-egress, prevent and/or reduce significance of wildfire, and promote Ecological Restoration on four sub-divisions (and their neighboring parcels) in western Sonoma County. Phase I included treatment along Ft. Ross Rd. and Muniz Ranches Rd. Major corridors for ingress and egress within the communities. This phase will treat and maintain the main feeder roads that lead to the roads treated during Phase I. (2-11 to 2-16)

At this time, due to the multi-decade build-up of fuels it is unrealistic to treat 50% of the project area with Prescribed Fire as recommended in the Distribution of Treatment Activities. However, some portion of the project may receive Pile and Broadcast Burn as maintenance under the assistance of CAL FIRE and a Community Burn Plan. The long-term goal for the organization executing this project is to increase the capacity for Broadcast Burn treatments. (2-29)

The entire project area has experienced decades of land management activities including road building, logging and ranching. Of the 165 acres in the project, 125 are located in CalVTP treatable landscape and 40 are outside the CalVTP mapped areas. Those 40 acres are directly adjacent to the CalVTP mapped areas and vegetation classification is similar and/or slowly evolving to historic forested conditions.

Table 1: CalVTP Treatable Landscape Acreage

CalVTP Treatable Landscape Acreage by Treatment Area Footprint			
	Acres Within the CalVTP Treatable Landscape	**Acres Outside of the CalVTP Treatable Landscape**	**Total Acreage**
Treatment Area Footprint	**125**	**40**	**165**
	Cal VTP Treatable Acreage by Treatment Activity		
Treatment Activity	Acres Within the CalVTP Treatable Landscape	Acres Outside of the CalVTP Treatable Landscape	Total Acreages
Rx Burn	Up to 43	Up to 13	Up to 56
Mechanical	Up to 22	Up to 34	Up to 56
Handwork	Up to 125	Up to 40	Up to 165
RX Herbivory	Up to 22	Up to 34	Up to 56
Herbicide	Up to 22	Up to 11	Up to 33
Total Activity Acreages	**125**	**40**	**165**

Much of the vegetation typing outside the CalVTP is listed as grassland or brushland, however, these areas were historically conifer or oak woodlands that were cleared for ranching, alongside small pockets of anthropogenically burned areas. Moving forward, the project proponents would like to maintain historic grasslands and encourage a more open-canopy (fire resistant) forest that was once present in this area.

Fuel Breaks & Ecological Restoration

Several treatments will be employed to create shaded fuelbreaks along approximately 12 sections of 7 high-use ingress and egress roads. Treatments will occur within 100' on both sides of the road (as vegetation, slope, and sensitive sites allow). The initial project will employ overlapping Mechanical and Manual treatments and may include Pile Burning. Project Maintenance may use Mechanical and Manual treatments along with Pile Burning, Prescribed Fire, Prescribed Herbivory and Herbicide application.

Table 2: Project Acres and Location by Road and Unit Name

Road	Area (ac.)	Unit	USGS Quad
Seaview Ranch Rd	35	SR 1a	Fort Ross
Seaview Ranch Rd	9	SR 1b	Fort Ross
Camper Creek Rd	3	CC 2a	Fort Ross
Camper Creek Rd	16	CC 2b	Fort Ross
Bohan Dillon Rd	18	BD 3	Fort Ross
Brain Ridge Rd	18	BR 4	Fort Ross
Blue Jay Rd	25	BJ 5	Fort Ross
Hazels Rd	23	HR 6	Cazadero & Fort Ross
Muniz Ranch Rd	4	MR 7a	Fort Ross
Muniz Ranch Rd	3	MR 7b	Fort Ross
Muniz Ranch Rd	3	MR 7c	Fort Ross & Arched Rock
Muniz Ranch Rd	8	MR 7d	Arched Rock
Total	**165**		

Shaded Fuel Breaks will be created with Mechanical treatments on slopes under 50% (up to 56 acres) and Manual Treatments (Hand Crews on up to 165 acres). Competing trees (up to 10 inches DBH), brush, and dead or dying trees will be removed and remaining trees and shrubs will be pruned to a minimum of 10 feet above the ground ½ of the Live Crown Ratio (whichever is the lesser), using the following equipment: small tractors, chainsaw, hand tools, chippers, and /or a masticator depending on slope. Where safe and feasible, up to 2 large diameter snags will be retained per acre for wildlife habitat. (2-22 to 2-25)

Slash disposal for the Mechanical and Manual treatments may include mastication, chipping, lop and scatter, and/or Pile Burning (see below). Chips will be spread to a depth of approximately 2"-4" for weed suppression and moisture retention, but not over 4" to avoid the possibility of spontaneous combustion. In areas utilizing lop and scatter the material will be reduced to 18" or less. Potential risk of pests, including pine bark beetle, will be mitigated with a slash disposal component of chipping and/or masticating wherever feasible. (2-23 to 2-24) Maintenance may also include Broadcast Burning.

Maintenance:

Up to 33 acres may be treated with Herbicide Application to control hardwoods (overstocked tanoak) and restore the historical conifer/tanoak ratio (10:1) in stands with greater than 77% canopy. On dry days with winds under 7 mph, hand crews will use the frill and inject (hack and squirt) method of application walking through the stand and using a hatchet injection system and a species-specific herbicide analyzed and included in the CalVTP PEIR (likely Imazapyr or Triclopyr). A pesticide application permit will be obtained from the Sonoma County Agricultural Commissioner, and this treatment will be manually performed under a certified and licensed pesticide applicator in compliance with the U.S. Environmental Protection Agency (EPA) label directions, as well as California Environmental Protection Agency and Department of Pesticide

Regulation (DPR) label standards and with a Spill Prevention and Response Plan. This follow-up treatment may occur prior to, or in conjunction with the Mechanical or Manual treatments described above (on the stumps of felled trees and brush). There will be no application within 500' of public property or 50' of riparian areas. (2-27 to 2-28, 2-40, 2-46, 2-48 to 2-50, 2-52)

Up to 56 acres may be treated Prescribed Pile Burning. Pile Burning will occupy up to 17 acres of ground with little to no slope (away from watercourses and other sensitive sites) and will involve ignition and supervision of piles conforming to the Agricultural Burn Permit approved by the Northern Sonoma County Air Pollution Control District (NoSoCo Air) or the Bay Area Air Quality Management District (BAAQMD). Burn piles will be located outside Watercourse and Lake Protection Zones (WLPZs) (2-25, 2-47)

Up to 56 acres of ground may be treated with Broadcast Burning (as resources are available) to restore the historiCAL FIRE regime and reintroduce biochar to the system. Project proponents will work with CAL FIRE and local volunteer fire departments to implement a CAL FIRE approved Burn Plan with an associated Smoke Management Plan that meets all CEQA requirements. (2-19 to 2-21, 2-32 to 2-37, 2-46, 2-47, 2-54)

Up to 56 acres of areas may be treated with Prescribed Herbivory. High intensity/low duration grazing will be used (as recommended by local Certified Rangeland Managers) in the herbaceous and brushy areas of the shaded fuelbreak footprints. During dry conditions, local shepherds will use sheep and goats along with portable electric fencing (highly visible to birds and mammals) and portable water systems (located outside of environmentally sensitive areas) to complete this treatment. Animals will not be grazed on slopes over 50% or be moved from areas with noxious and/or invasive weeds to weed-free areas. (2-25 to 2-27, 2-45 to 2-48, 2-50)

Timming

Each portion of road treated with Mechanical and Manual treatments will take approximately 2 days per acre to treat. Most of the Units will take approximately 1-2 weeks to complete mechanical and/or manual operations. Pile burning will occur between 10AM and 4PM, on permissive burn days, between October and May. The number of burn days for pile burning will depend on staffing availability, likely 1-2 days per Unit. Prescribed Burning operations (up to 10 acres a day) will take place within 1-2 days. Prescribed Herbivory will take 1-4 days per acre depending on the number of animals available. Herbicide Application will be completed in 1 day for each applicable Unit.

Additional timing restrictions: All Treatment activities using equipment are limited to daytime hours on weekdays (Monday through Friday). If NSO (or other Listed or sensitive bird species) are discovered in the project area, buffers for heavy equipment use and manual felling operations will be established and the proponents may choose to implement the project inside those buffers *outside* of the NSO nesting season (Feb 1-July 15). There will be no equipment operations during CAL FIRE designated "red flag warning" days. Mechanical, Prescribed Herbivory, and Herbicide Application treatments will cease if the National Weather Service forecast is a "chance" (30 percent or more) of rain within 24 hours. There should be no heavy equipment operations for at least 72 hours following any rain of more than 1/2" and/or if soils are saturated. Prescribed Pile or Broadcast Burning will only occur during confirmed NoSoCo Air and/or BAAQMD "permissible burn days" (as determined by the treatment's permitting agency).

a. Initial Treatment

Mechanical and/or Manual treatments with some Prescribed Pile Burning will prepare portions of the project area for Maintenance treatments using Prescribed Broadcast Burning and Prescribed Herbivory treatments. Treatments described in detail above.

Treatment Types

☐ Wildland-Urban Interface Fuel Reduction
☒ Fuel Break

☒ Ecological Restoration

Treatment Activities
☐ Prescribed Burning (Broadcast), _____ acres
☒ Prescribed Burning (Pile Burning), up to 56 acres
☒ Mechanical Treatment, up to 56 acres
☒ Manual Treatment, up to 165 acres
☐ Prescribed Herbivory
☐ Herbicide Application

Fuel Type
☒ Grass Fuel Type
☒ Shrub Fuel Type
☒ Tree Fuel Type

b. <u>Treatment Maintenance</u>

The project area should be re-treated to control brush and unwanted (invasive) species, where needed, within 5-10 years.

The Project proponent's goals for treatment maintenance are to increase the percentage of Prescription (Broadcast) Burning as funding and vegetation response allows. Areas close to homes or other sensitive areas will continue a maintenance regime of Mechanical and Manual treatments.

The overall vegetation types are not expected to change and therefore the PSA is unlikely to need updating. Treatment maintenance activities will likely require additional grant funding and updated vegetation conditions will be confirmed through in-person site assessment during grant preparation and prior to activities. If vegetation has changed significantly (e.g. wildfire) a new PSA or other environmental analysis will be conducted.

Treatment Types
☐ Wildland-Urban Interface Fuel Reduction
☒ Fuel Break
☒ Ecological Restoration

Maintenance Activities [*see description in CalVTP PEIR Section 2.5.2, check every applicable category; include number of acres subject to each treatment activity, provide detail in description of Treatment Maintenance*]
☒ Prescribed Burning (Broadcast), up to 56 acres
☒ Prescribed Burning (Pile Burning), ignition within 17 acres with material from up to 56 acres
☒ Mechanical Treatment, up to 56 acres
☒ Manual Treatment, up to 165 acres (in conjunction with Pile Burning where Mechanical Treatment and Burning is not feasible)
☒ Prescribed Herbivory, up to 56 acres
☒ Herbicide Application, up to 33 acres (as needed to restore conifer/hardwood balance)

Fuel Type
☒ Grass Fuel Type
☒ Shrub Fuel Type
☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

Prior to implementing a maintenance treatment, the project proponent will verify that the expected site conditions as described in the PSA are present in the treatment area. As time passes, the continued relevance of the PSA will be considered by the project proponent in light of potentially changed conditions or circumstances. Where the project proponent determines the PSA is no longer sufficiently relevant, the project proponent will determine whether a new PSA or other environmental analysis is warranted.

In addition to verifying that the PSA continues to provide relevant CEQA coverage for treatment maintenance, the project proponent will update the PSA at the time a maintenance treatment is needed when more than 10 years have passed since the approval of the PSA or the latest PSA update. For example, the project proponent may conduct a reconnaissance survey to verify conditions are substantially similar to those anticipated in the PSA. Updated information should be documented.

Regional Setting and Surrounding Land Uses:

This project lies in portions of the South Fork Gualala, Ward Creek (Russian River), and Russian Gulch Watersheds.

This project is within or adjacent to the footprint of the 1978 Creighton Ridge fire (the last large wildfire in this area) that burned 12,000 acres and destroyed every structure in its path. This area was also substantially damaged by wildfire in 1953 (Charles Fire), 54 (Charles Fire), 65 (Magic Mt Fire) and more recently by Sudden Oak Death. Following these series of fires, tanoak came back as the dominant tree vegetation type and is now being killed in significant numbers. The vegetation in this region is currently a mixture of mostly forestland; primarily coast redwood and oak woodlands. There are also smaller areas of brush, mixed hardwoods, grasslands, agricultural, and developed areas.

This portion of the County is primarily zoned for rural residential or rural agricultural use. The area is comprised of mostly 30-40-acre parcels and use ranges from structure-free recreational use to full-time occupancy. Some landowners have small farms with animals and/or vineyards. Since 2017, many full-time residents have committed to creating defensible space around their structures and driveways.

Past Forestry Projects Within or Adjacent To The Project Area

The following CAL FIRE Exemptions occurred within or adjacent to the project area:

Exemption	Filing Party	Unit(s)	Percent of Unit
1-20EX-00059-SON 1-18EX-01181-SON	PG&E (ROW), various landowners	SR 1b	85%
		BD 3	85%
		BR 4	<1%
		BJ 5	2%
		HR 6	47%
1-20EX-01011-SON 1-19EX-01121-SON	PG&E (ROW), various landowners	MR 7b	33%
		MR 7c	53%
		MR 7d	Adjacent
1-24EX-00141-SON	Navarro Ranch Assoc. & various landowners	HR 6	65%
1-24EX-00307-SON	Various landowners	CC 2b	34%

Treatments in this project will include the area around portions of the following roads: Camper Creek Road, Hazel's Road, Blue Jay, Brain Ridge, Seaview Ranch Road, Bohan-Dillon Road, and Muniz Ranch Road; In the following sub-divisions: Gualala Ranch, Navarro Ranch, Seaview Ranch, and Muniz Ranches; West of Cazadero; in Sonoma County. See also Table 2: Project Acres and Location by Road and Unit Name, above and maps, below.

Other Public Agencies Whose Approval is Required:

- Northern Sonoma County Air Pollution Control District (NoSoCo Air) and the Bay Area Air Quality Management District (BAAQMD): Burn Permits for Agricultural Pile Burns
- CAL FIRE: Prescribed Fire Plan
- CAL FIRE/ NoSoCo Air/ BAAQMD: Smoke Management Plans

- Sonoma County Agricultural Commissioner: Pesticide Application Permit.

Coastal Act Compliance

☒ The proposed project is NOT within the Coastal Zone

Native American Consultation:

The Project Proponent contracted Matt Greene Forestry & Biological Consulting to assist with CEQA requirements for this project. The following RPFs with current certifications for CAL FIRE Archeological Review Training performed field surveys and/or records checks, and/or mailed Notification Letters to Tribes:

Matt Greene, RPF #2747, CAL FIRE Trainings: 1999-2022;
Kirsten Sequoia, RPF #3009, CAL FIRE Trainings 2016-2022;
Mark Ogren, RPF#3182, CAL FIRE Training 2020.

Currently, there are no know Native American cultural or archeological sites, features or artifacts within the boundaries of the Project Area as mapped. Moving forward, project boundaries in the field will continue to be flagged to avoid known or potential Native American Cultural Sites with a buffer of 100 feet. "Discovered" sites (and subsequent protection measures) will be reviewed in the field with Kashia's THPO on a site-by site basis.

The following Native American Consultation activities were performed by RPFs and/or Pacific Legacy, INC:

Aug 1-4, 2023

Northwest Information Center (NWIC) Records Searches were performed for the entirety of the 4 Sub-divisions, and all Units in this project were covered under the following four 2023 Reports; Coast Ridge Community Forest's CAL FIRE-Fire Prevention Grant Projects in Navarro Ranch & Blue Jay Ridge; Muniz Ranches Property Owners Association Fire Prevention Projects; Coast Ridge Community Forest's CAL FIRE-Fire Prevention Grant Projects in Gualala Ranch & Camper Creek Rd.; Coast Ridge Community Forest's CAL FIRE-Fire Prevention Grant Projects in Seaview Ranch and Bohan Dillon Rd.

Results: The project area is in the traditional territory of the Kashia Pomo people (AKA: Kashia Band of Pomo Indians of the Stewarts Point Rancheria). Several known sites were listed in the reports, however there are no known sites within the project area. The NWIC made clear to project proponents that there is a potential that sites exist in the project area.

August 16, 2023

Outreach to the Native American Heritage Commission and Tribes on CAL FIRE's Native American Contacts List to request information in the following portions of the project area: Hazel's Road, Camper Creek Road.

Results: No immediate feedback or concern. Matt Greene continued contact with Kashia's THPO on the larger, proposed CalVTP covered project area.

2023-2024

Cultural & Historic Era Site Surveys were conducted in the following portions of the project area:

- Hazel Road (Unit HR6)
- Camper Creek Road (Units CC2a & CC2b)
- Seaview Ranch Rd (Unit SR1a & SR1b)
- Brain Ridge Rd (Unit BR4)

January 2024

The RPF and Project Proponents performed a field review with the Kashia THPO to view portions of the project area with a high likelihood of potential sites (due to the proximity of water, flat ground, etc.).

April 17-18 2024

Portions of the project were reviewed by 3 Qualified Professional Archeologists (Hannah Ballard and 2 others) from Pacific Legacy, INC., 900 Modoc Street, Berkeley, CA 94707.

DETERMINATION

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

[X] 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 proponent 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.

Signature

9-11-2024
Date

Darren DeCarli
Printed Name

Division Chief
Title

Gold Ridge Fire Protection District
Agency

3.1: 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, pp. 3.2-16 – 3.2-19	**YES**	**AES-2**	**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 WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	**YES**	**None**	**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 Non-Shaded Fuel Break Treatment Type	SU	Impact AES-3, pp. 3.2-25 – 3.2-27	**NO**	**None**	**None**			

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project. SPRs=Standard Project Requirements. MMs=additional Mitigation Measures.

New Aesthetic and Visual Resource 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

Discussion

This community supported project is not directly adjacent to any State Scenic Highway or public use area; it is proposed entirely along private, sub-division association roads on private property. Use of these roads is subject to landowner approval. Regardless of the lack of public access, the potential impacts to aesthetics and visual resources have been considered so as to landowner participation in the project. The temporary modifications to the landscape caused by this project will not be inconsistent with portions of its surroundings. Very limited views from Fort Ross Road (County) from below, or from CA State Highway 1 from above will be of a forested area with little to no dead trees and little to no brushy understory vegetation.

Impact AES-1

The creation of the shaded fuelbreaks will involve the removal of dead and dying trees and brush and improving spacing between remaining trees. Maintenance will involve periodic deletion of the brushy understory and/or invasive species. Post-project this work will significantly improve the scenic vista, visual character, and quality of

the sites for landowners (and their visitors) traveling on these private road corridors. Inclusion of **SPR AES-2** in project activities will minimize potential short-term impacts to visual resources in the project area by considering the storage of all treatment-related materials, including vehicles and equipment, as well as vegetation debris treatment generated by the project.

Project implementation utilizing heavy equipment will occur over the course of several days and slash material will be processed on-site via mastication, chipping, lop and scatter (in steeper, less-visible areas), and broadcast and/or pile burning during the maintenance treatments.

Impact AES-2

The creation and maintenance of the shaded fuelbreaks in this project are consistent with the work previously implemented on nearby public areas including Fort Ross Road, Fort Ross State Park and Jenner Headlands. These projects are valued by the public for their aesthetic value (removal of dead vegetation) and their safety value (safe corridors and reduced instance or severity of potential wildfires). This project would not constitute a substantially more severe significant impact than what was covered in the PEIR. Avoidance of (or reduction of severity of) wildfire is the most important long-term goal of this project.

Impact AES-3

Only Shaded Fuel Break treatments and maintenance will be implemented for this project.

New Aesthetic and Visual Resource Impacts

NA

3.2: 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, pp. 3.3-7 – 3.3-8	**NO**	**NA**	**NA**			

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New Agriculture and Forestry Resource 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

Discussion

This project will create shaded fuel breaks and is designed to maintain forested landscapes. See Environmental Checklist above for more description. The project does not involve conversion of forestland to non-forest use. Project Maintenance will avoid conversion of forestland to invasive species, and will ensure that potential impacts remain at a less than significant level.

Impact AG-1
See Discussion above.

New Agriculture and Forestry Resource Impacts
NA

3.3: 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	Table 3.4-1; Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	**YES**	**AQ-1 AQ-2 AQ-3 AQ-4 AQ-6**	**None**	**SU**	**NO**	**YES**
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	LTS	Table 3.4-6; Impact AQ-2 pp. 3.4-33 – 3.4-34; Appendix AQ-1	**YES**	**HAZ-1**	**NA**	**LTS**	**NO**	**YES**
Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	LTS	Section 3.4.2; Impact AQ-3, pp. 3.4-34 – 3.4-35	**NO**					
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	SU	Section 3.4.2; Impact AQ-4, pp. 3.4-35 – 3.4-37	**YES**	**AD-4 AQ-1 AQ-2 AQ-3 AQ-6**	**NA**	**SU**	**NO**	**YES**
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5, pp. 3.4-37 – 3.4-38	**YES**	**HAZ-1**	**NA**	**LTS**	**NO**	**YES**
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	SU	Section 2.5.2; Impact AQ-6; pp. 3.4-38	**YES**	**AD-4 AQ-1 AQ-2 AQ-3 AQ-6**	**NA**	**SU**	**NO**	**Yes**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

The project is on and surrounded by private property; some parcels contain habitable structures. There are no hospitals, clinics, schools or other spaces open to the public within a mile of the project. Local residents and CRCF members support this project. It is located in the Northern Sonoma County Air Pollution Control District (*NoSoCo Air, not Northern Sonoma County AQMD as stated in the PEIR*).

All project activities will adhere to required permits and the following Specific Project Requirements (depending on the treatment type) that will assist in notifying local residents of smoke/particulate generating broadcast burning projects (so that they may make plans to avoid them) and limiting particulates and potential toxic air contaminants: Public Notifications for Prescribed Burning (**SPR AD-4**); Comply with Air Quality Regulations (**SPR AQ-1**); create a Submit Smoke Management Plan (**SPR AQ-2**); Create a Burn Plan (**SPR AQ-3**); Minimize Dust (**SPR AQ-4**), employing Prescribed Burn Safety Procedures (**SPR AQ-6**), and ensuring the operators are properly maintaining all equipment used in the project area (**SPR HAZ-1**).

Projects that contribute smoke from pile burning and/or broadcast burning (also referred to as *prescribed fire* in the PEIR) are regulated by the NoSoCo Air and/or CAL FIRE via a Burn Plan and Smoke Management Plan. All necessary permits will be obtained prior to the start of operations and the project proponent will follow permit procedures to ensure the project complies with air quality protection standards (SPR AD-3). Furthermore, not implementing this project may contribute to a catastrophic wildfire that would likely release pollutants at levels that directly conflict with the applicable air quality plan.

Dust from heavy equipment use and low-level emissions from equipment operations are an almost daily occurrence due to forestry, farming, ranching, and other land management activities in the surrounding TPZ and RRD zoned parcels. These zonings allow for the growing and harvesting of timber and other forest products, hunting, raising livestock and single-family dwellings as well as some other limited development or commercial activities. The intent of this zoning is to keep the area fairly rural and rustic while ensuring high quality timber is grown. Projects will not employ equipment or operations that drastically exceed pollution that is caused by current land management activities (burn piles, grading, etc.) in the region.

Impact AQ-1

SPRs AQ-2, AQ-3, and **AQ-6** apply to the broadcast burning treatments during the Maintenance phase. The project proponents do not own or operate equipment used for project implementation. They will however encourage, but not require, use of emission reduction techniques outlined in **MM AQ-1** by the operators.

See also Discussion above.

Impact AQ-2

Use of vehicle and mechanical equipment during initial and maintenance treatments has the potential to expose people to diesel particulate matter emissions. The potential to expose people to diesel particulate matter emissions was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, page 33-34). Diesel particulate matter emissions from the proposed treatments are within the scope of the PEIR because the exposure potential is the same as analyzed in the PEIR, and the types and amount of equipment that would be used, as well as the duration of use, during proposed treatments are consistent with those analyzed in the PEIR. **SPRs AQ-1, HAZ-1, NOI-4,** and **NOI-5** are all applicable to this project.

Diesel particulate matter generated by treatment activities would not take place near any single sensitive receptor for an extended period. In addition, diesel particulate matter dissipates rapidly from the source, and exposure concentrations would decline with distance from these activities. In accordance with **SPR HAZ-1**, all diesel and gasoline-powered equipment will be properly maintained to comply with all state and federal emissions requirements, which would prevent excessive emissions of diesel particulate matter due to poorly functioning equipment. Also, **SPR NOI-4** will keep vegetation treatment activities and staging areas located as far as possible from human receptors and **SPR NOI-5** restricts equipment idling time. Diesel exhaust emissions would be temporary, would not be generated at any one location for an extended period, and would dissipate rapidly from the source with an increase in distance. Implementation of these SPRs reduce the impact to less than significant. The determination is consistent with the PEIR and would not constitute a substantially more severe impact than identified in the PEIR.

Deisel powered equipment is regularly used on the surrounding parcels. Project implementation with diesel powered equipment will occur over a few days in each section. Contractors and equipment operators will be

locally employed and monitored by the project proponents. None of the projects will utilize equipment that is not already in use in this area. See also Discussion above.

Impact AQ-3

According to the California Geological no naturally occurring asbestos is mapped in the treatment area. Serpentinite and/or ultramafic rock is known to be in portions of Sonoma County; however, there has been only one asbestos mine in the County, and it is east of Geyserville (over 25 miles from the project area).

Additionally, to protect potential cultural resources, this project does not involve disturbing rock outcrops or crushing any local rock. No grading is required for this project.

Impact AQ-4

See also Discussion and AQ-1 above.

Impact AQ-5

See Discussion and AQ-3 above.

Impact AQ-6

Prescribed burning in the form of pile and broadcast burning during initial and maintenance treatments has the potential to expose people to objectionable odors, as described in the PEIR (CalVTP Final PEIR Volume II 3.4.3, page 38-39). The presence of smoke odors could also potentially effect (reduce the quality) of grapes or other agricultural crops while they are ripening; generally, between June and September.

Treatments are located in relatively sparsely populated areas (less than 50 people per square mile). Additionally, exposure to smoke would be short duration and occur infrequently. Prescribed burning would be conducted in accordance with local air district regulations (NoSoCo Air) and the Smoke Management Plan as required in **SPRs AQ-1** and **AQ-2**. No burning should occur between June and September to protect agricultural crops.

The duration and parameters of the prescribed burn treatments are within the scope of the activities analyzed in the PEIR therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the PEIR. All feasible measures to prevent and minimize smoke odors as well as exposure to smoke odors are included in SPRs. For these reasons, the potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the PEIR. **SPRs AQ-1, AQ-2, AQ-3, AQ-6,** and **AD-4** are all applicable to this project.

New Air Quality Impacts

The proposed treatments are consistent with the treatment types and activities covered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Sections 3.4.1 and 3.4.2). No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impact. Therefore, no new impact related to air quality would occur.

3.4: 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, pp. 3.5-14 – 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, pp. 3.5-15 – 3.5-16	**YES**	**CUL-1 CUL-2 CUL-3 CUL-4 CUL-5 CUL-6 CUL-8**	**MM CUL-2**	**SU**	**NO**	**YES**
Impact CUL-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource	LTS	Impact CUL-3, p. 3.5-17	**YES**	**CUL-1 CUL-2 CUL-3 CUL-4 CUL-5 CUL-6 CUL-8**	**NA**	**LTS**	**NA**	**YES**
Impact CUL-4: Disturb Human Remains	LTS	Impact CUL-4, p. 3.5-18	**YES**	**None**	**NA**	**LTS**	**NA**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New Archaeological, Historical, and Tribal Cultural Resource 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

Discussion

See also, Native American Consultation, above.

Coastal Sonoma County is home to the Southern Pomo people. The project and surrounding lands are in the territory of the Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Kashia People). Most of the ancestors of the Kashia People lived in small groups with defined territories. In general, they built dwellings and structures with redwood bark or split wood; near a source of water. They would move from time to time for various reasons including death, hardship, spiritual beliefs, availability of resources, migration of game, or seasonal weather changes. Most of the time these moves were a mile or less in distance.

On the North Coast, there are documented tribal work sites, spiritual sites, trade routes, and habitation sites. Ancestral Pomo peoples also used rock art as a means of communication, (e.g., directions, warnings, boundaries, written history, and location of game). Archeological surveys in the region have identified lithic scatters, tool processing areas (including quarries), habitation sites, petroglyphs, and bedrock mortars (including cupules).

A large portion of the early roads, logging camps, houses, and non-indigenous infrastructure were built on Native American trails and sites. Most of coastal Sonoma County has been logged over and/or heavily grazed

resulting in heavy disturbance to sites. House pits and other infrastructure are sometimes still visible, but most have been destroyed.

The Russian settlement of Fort Ross was the earliest European colony near the project area (1812-1842). Next, the Spanish Land Grants (or Ranchos) were developed in the area beginning in 1846. California became a U.S. state in 1850, and settlers flooded into the region for logging jobs and ranching and farming opportunities. An object, structure, or infrastructure 45 years or older can be considered a historical-period site/resource under CAL FIRE funded projects. In this part of Sonoma County there are many homesteads, farms, or ranches older than 45 years, along with abandoned logging equipment, railroad grades/abutments, buildings, and other structures.

A portion of the project area received archeological review during development of the EIR for two of the Sub-divisions participating in this project (Gualala Ranch; S-000110, Navarro Ranch; S-000050a). Other portions of the remaining project area received surveys by the Anthropological Studies Center at Sonoma State University and/or other (private) entities as required for commercial timber harvests (THPs) or other development activities that required grading, building and road construction.

The project proponent contracted Matt Greene Forestry & Biological Consulting to perform an archeological review of the project area. This firm is local to western Sonoma County and its owner has a pre-existing relationship with the Kashia's current (and many past) THPO(s). The firm's Archaeologically Trained Resource Professionals working on this project are Registered Professional Foresters (RPFs) currently certified by CAL FIRE's archeology training program (**SPRs AD-3, CUL-3**). Prior to field review, an RPF conducted the NWIC Records Search, and Reports were received between 7/26/2023 and 8/4/2023 (**SPR CUL-1**). These were landscape level searches that extend beyond the 165 acres of the current project area to include the boundaries of each of the 4 sub-divisions. These Records Search Reports are valid for 5 years. There are multiple Native American and Historic-period Cultural resources identified in these reports, however, the Reports did not map or list any recorded resources within the current 165-acre project area. Each record identified the people living in the general area at the time of Euroamerican contact as "speakers of the Kashia Pomo language". The Native American Heritage Commission and all groups on CAL FIRE's Native American Notification List for Sonoma County were contacted about portions of this project (included in an overlapping CAL FIRE Exemption) on August 16, 2023 (**SPR CUL-2**). Additionally, the project proponents requested a Local Government Tribal Consultation List and Sacred Lands File & Native American Contacts List for the project area from the Native American Heritage Commission (NAHC), and the response was received on 8/13/2024. According to the NAHC, "*The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Kashia Band of Pomo Indians of the Stewarts Point Rancheria on the attached list for more information.*" (**SPR CUL-2**) The RPFs further briefed the Kashia Tribal Historic Preservation Officer (THPO) on the greater project area (165 acres) in this PSA. The RPFs performed Cursory Surveys and, within the CalFire Exemption areas, Intuitive Surveys in the field (2023-2024). Together, the THPO and RPFs reviewed portions of the project area in the field and discussed the project in relation to the cultural landscape (and potential spiritual sites) on January 25, 2024 (**SPR CUL-6**). The project proponent also contracted three Qualified Archaeologists from Pacific Legacy, INC. to review sensitive portions of the project area (with the RPFs) on April 17-18, 2024 (**SPR CUL-4**).

All known Native American cultural resources (sites, features, places, cultural landscapes) recorded or otherwise identified by the Kashia THPO and any recorded Historic-era resources (e.g. considered significant by archeologists) will be protected through multiple SPRs as well as State and Federal requirements. All known Native American cultural resources (recorded or otherwise identified by a qualified RPF or Archeologist) will receive a 100' no-operations buffer until the RPF can meet with the Kashia THPO and develop a buffer and/or a protection plan for the resource. All unrecorded anthropogenic objects and features that are difficult to date (old fencing, trash dumps, orchard trees, etc.), and that have been deemed not-significant by the Qualified Archaeologists reviewing the RPFs, will be mapped and flagged for identification and avoidance by the operator(s). This will avoid inadvertently damaging the object(s), protect equipment from damage, and protect

operators and/or hand crews from harm. All buildings, regardless of age and significance, will receive a 100-foot buffer from heavy equipment and broadcast burn treatments. Trees will be felled away from all areas with anthropogenic objects. (**SPRs CUL-5, CUL-6**).

Prior to operations, the RPF(s) will meet with the lead operator(s) implementing treatment activity to instruct them on avoidance areas (**SPR CUL-8**). Archeological sites will not be called out on maps as such, but will be referred to as "sensitive areas." This is to avoid potential looting of a site. Workers will be instructed to halt work and notify the RPF and project proponents if potential archaeological resources (or human remains) are encountered during implementation (**SPR CUL-7**), See also Impact CUL-2 below.

In general, the project was designed to minimize soil disturbance and as well as potential disturbance to Cultural Resources.

Prior to any delayed project implementation and/or future maintenance treatments, Records Search updates will be performed five years from the date the existing Reports expire.

Impact CUL-1

See Discussion above.

Initial and maintenance treatments including manual, mechanical, and prescribed burning have the potential to damage historical resources. The potential for these treatments to cause a substantial adverse change in significance to constructed historical resources was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, pages 14-15). The potential to cause disturbance to, damage to, or destruction of built-environment structures during implementation of treatment activities is within the scope of the PEIR because the treatment activities and levels of disturbance are consistent with those addressed in the PEIR. SPRs **CUL-1. CUL-2. CUL-3, CUL-4.CUL-5, CUL-6 and CUL-8** are all applicable to this project.

Impact CU-2

The RPF will brief the Licensed Timber Operator (LTO or operator) about the potential and response for archeological discoveries prior to the start of operations. 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 the RPF will contact a qualified archaeologist to 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. See **MM CUL-2** in the PEIR for additional information.

Initial and maintenance treatments including manual and prescribed burning treatment types do not have the potential to cause a substantial adverse change in the significance of unique archaeological resources or subsurface historical resources because they do not involve significant soil disturbance. However, mechanical treatment types utilizing heavy equipment have the potential to churn up the ground surface during treatments as vegetation is removed, which may result in damage to known or previously unknown archaeological resources, as described in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, pages 15-16).

Impact CUL-3

See Discussion above.

The potential for the initial and maintenance treatment types of this project to cause a substantial adverse change in the significance of a tribal resource were examined in the PEIR. Proposed treatment activities include manual, mechanical, and prescribed burning treatment types. As explained in the PEIR, implementation of SPRs would avoid any substantial adverse change to cultural resources identified within the treatment project. The potential for significant impacts to tribal resources during implementation of the proposed treatment project is within the scope of the PEIR because the activities, impacts, and intensity of ground disturbing activities are consistent with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 17). SPRs **CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6,** and **CUL-8** are all applicable to this project.

Impact CUL-4

The Project Proponents are not aware of, nor are there records of Native American burial grounds or historic-era cemeteries in or adjacent to the project area. The closest know historic cemetery (Seaview Cemetery) is over a half mile (as the crow flies) from the project area with a steep banked perennial watercourse (South Fork Gualala River) between them. See Discussion and Impact CUL-2 for more information on protection of human remains discovered during operations.

New Archaeological, Historical, and Tribal Cultural Resource Impacts

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to archaeological, historical, or tribal cultural resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to archaeological, historical, or tribal cultural resources would occur.

3.5: 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	LTS	Impact BIO-1, pp 3.6-131–3.6.138	**YES**	**BIO-1, BIO-2, BIO-3, BIO-7, BIO-9, AQ-4, GEO-7, HYD-4, HYD-5**	**BIO-1a BIO-1b Possibly BIO-1c**	**LTS**	**NO**	**YES**
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTS (all wildlife species except bumble bees) S&U (bumble bees)	Impact BIO-2, pp 3.6-138–3.6-184	**YES**	**BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-10, BIO-11, GEO-1, HAZ-5, HAZ-6 HYD-1, HYD-3, HYD-4, HYD-5**	**BIO-2a BIO-2b possibly BIO-2g BIO-3a BIO-4**	**LTS**	**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	LTS	Impact BIO-3, pp 3.6-186–3.6-191	**YES**	**BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, HAZ-5, HYD-1, HYD-4**	**BIO-3a**	**LTS**	**NO**	**YES**

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-4: Substantially Affect State or Federally Protected Wetlands	LTS	Impact BIO-4, pp 3.6-191–3.6-192	**YES**	**BIO-1, BIO-4, HYD-4**	**BIO-4**	**LTS**	**NO**	**YES**
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTS	Impact BIO-5, pp 3.6-192–3.6-196	**YES**	**BIO-1, BIO-10, BIO-11, HYD-1, HYD-4**	**BIO-5**	**LTS**	**NO**	**YES**
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	LTS	Impact BIO-6, pp 3.6-197–3.6-198	**YES**	**BIO-1, BIO-2, BIO-3, BIO-4, BIO-12**	**NA**	**LTS**	**NO**	**YES**
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	No Impact	Impact BIO-7, pp 3.6-198–3.6-199	**YES**	**AD-3**	**NA**	**No Impact**	**NO**	**YES**
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan (ANCCP), Habitat Conservation Plan (HCP), or Other Approved Habitat Plan	No Impact	Impact BIO-8, pp 3.6-199–3.6-200	**NO**					

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

All treatment types addressed in the PEIR may be used for the project and/or treatment maintenance, and they were considered during this review. Use of the treatments outlined in this project (and their potential level of disturbance) is not unique the area. This project does not take place in the Coastal Zone and does not contain Chaparral or Coastal Sage Scrub habitat types. The project is not in the range of the Valley Elderberry Longhorn Beetle.

Biological review was also performed by RPFs from Matt Greene Forestry & Biological Consulting qualified to perform Plant and Animal consultation and surveys. The RPFs accessed the commercial version of the California Natural Diversity Database (CNDDB/BIOS and RareFind 5) to perform a 9-Quad Search (see USGS 7.5' Quadrangles included, below) and cross-referenced the plant and habitat results with the California Native Plant Society Inventory of Rare and Endangered Plants of California, Sonoma Veg Map, and the California Wildlife Habitat Relationship (CWHR) system. The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool and the USFWS Wetlands Mapper were also utilized for relevant plant and animal habitat protection information (**SPR BIO-1**).

The "*9-Quad Search*" included 12 USGS 7.5' Quadrangles due to the project area overlapping 3 quads. The **Bold Quads** are those in which the project is located; **Arched Rock**, **Cazadero**, **Fort Ross**, Annapolis, Bodega Head, Camp Meeker, Duncans Mills, Geyserville, Guerneville, Plantation, Tombs Creek, and Warm Springs Dam.

Vegetation Types and Habitats

Vegetation types, proximity to perennial water and ecotones, and subsequently, habitat types, vary across the 165-acre project, however the predominate habitat type is conifer forest (redwood and Douglas-fir) with some areas of mixed hardwoods (white oak or live oak with Douglas-fir ingrowth) and a few acres of riparian habitat. Areas identified on Sonoma Veg Map as herbaceous, shrub and/or grasslands are historic forestlands that were cleared for ranching activities beginning in the 1860s. As viewed in the field (and on recent aerial images) most of these areas are now clearly being colonized by Douglas-fir in most areas (**SPR BIO-3**). See also, Impact BIO-3, below. To identify the potential for rare and sensitive species in the project area, the following vegetation/habitat types were queried: Broadleaved upland forest, Cismontane woodland, North coast coniferous forest, Redwood, Riparian forest, Riparian woodland, Valley & foothill grassland.

Special Habitat Elements

These include geologic sites (e.g. Cliffs, rock piles, dunes) dead and down wood (snags of various size classes, logs, and dead fine material), soil types (e.g. serpentine), specific foods, habitat mixtures, and water sources. There are no old growth or late seral-state forests in the project area; however, it is possible that an individual tree or two may be present in some locations. There are no volcanic soils and no known serpentine soils in or within 100 feet of the project, however the Yorkville Soil Series is underlain by weathered serpentinized igneous rocks and this should be considered when performing surveys.

Wetlands and Waters of the United States and California State

Class I, II, and III watercourses, springs and seeps have been identified by the project proponents in the project area. Some of these have been mapped in the USFWS's Wetlands Mapper. Six sections of Riverine habitat are mapped in and adjacent to the project area, and an area of Freshwater Forested/Shrub Wetlands is mapped in the Muniz Ranches (Unit MR 7d along Russian Gulch). There are no lakes, ponds, or State and Federally protected wetlands known or identified by USFWS or the RPF in the project area.

Special-Status Plant Species With Habitat In (and adjacent to) the Project Area

Several listed and special-status plant species from the CNDDB "9-Quad Search" may have habitat in or adjacent to the project area. Please see CNDDB "9-Quad Search" in Attachment B – Biological Resources, below.

Listed and Special-Status Animal Species With Habitat In (or adjacent to) the Project Area

Several listed and special-status animal species from the CNDDB "9-Quad Search" may have Aquatic (freshwater), Broadleaved upland forest, Cismontane woodland, North coast coniferous forest, Redwood, Riparian forest, Riparian woodland, or Valley & foothill grassland habitat in or adjacent to the project area. Please see the CNDDB "9-Quad Search" and species descriptions and modified survey request as outlined in the USFWS and CDFWS Consultation Memos in Attachment B – Biological Resources, below.

CDFW and USFWS Consultation

In June 2024 the project proponents requested Consultation with the CDFW and the USFWS on the survey and protection measures specific to this project as outlined in this PSA and Attachment A. Please see modified survey protocols proposed by the project proponents (as outlined in the Consultation Requests with CDFW and USFWS) in Attachment B – Biological Resources, below.

A request for Consultation was sent to Julie Coombes (Senior Environmental Scientist Supervisor; Timberland Conservation & Wildfire Resiliency and Water Rights Unit CDFW, Bay Delta Region 3) on June 25, 2024. Upon feedback an updated version was submitted on 7/17/2024. Richard Klug responded via email on July 18, 2024, "*Thanks for looking into this and making changes… I don't anticipate any impacts to NSO or other listed species. I'll let Julie know I have no further concerns*."

An updated request for Consultation was sent to the USFWS on 7/17/2024. Ryan Olah (Coast Bay Division Supervisor) for the Service responded via email on 7/19/2024, "*The Service does not have any comments on the proposed fuels reduction project. Thanks.*"

Surveys and Protection Measures

To further project Sensitive Natural Communities, listed or special status plants, and listed or special status animals, general surveys of the individual project units will take place prior to and during project layout by a qualified RPF (flagging the unit boundaries). Please see attached Consultation requests in Attachment B – Biological Resources, below.

The overall goal for the project proponents is to fully avoid mortality, injury, or disturbance and maintain habitat function of listed or special-status species and individuals (**SPR BIO-1** and **MMs BIO-1a, BIO-2a, BIO-5**)

The project proponents will generally physically avoid mechanical, herbicide, and fire treatments in sensitive and/or suitable habitat where feasible. Where total avoidance is not feasible, the project proponents can protect habitats and species by conducting treatments 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). If those two protection measures cannot be satisfied, the RPF contracted by the project proponents will contact the appropriate agency and develop site specific (or species specific) protection measures that the project proponent will require the operator to adhere to (**SPR BIO-1, MMs BIO-2a, BIO-2b, BIO-2c**).

SENSITIVE NATURAL COMMUNITIES AND OTHER SENSITIVE HABITATS:

The project has been designed to enhance and/or protect Sensitive Natural Communities (**MM BIO-3a**). This project should not cause a loss of sensitive natural communities, oak woodlands, or riparian habitats. State and federally protected wetlands will be flagged and avoided (**MM BIO-4**).

To further project Sensitive Natural Communities, prior to operations, a qualified RPF will perform surveys to identify sensitive natural communities and/or other sensitive habitats in (or adjacent to) the project. All special habitat elements associated with water will be protected by the watercourse protection measures. Riparian habitat, fish bearing streams, and other sensitive communities will be protected with the establishment of a WLPZ to protect both water quality and habitat (**SPRs BIO-4, HYD-1, HYD-4**). See also 3.10: Hydrology and Water Quality. This will include a 30-foot no operations buffer and an extended zone of limited operations depending on watershed classification and slope. Non-domestic use springs and seeps will be given a 25-foot heavy equipment exclusion buffer. If wetlands are identified by the RPF (none known at this time) during pre-project surveys, **MM BIO-4** will be applied. Additionally, erosion monitoring and the application of seed and straw mulch (along fills adjacent to the WLPZ or in areas where mechanical, prescribed herbivory, or broadcast burns result in exposure of bare soil over 50 percent of the project), installing proper functioning erosion control structures, and/or loping or other slash disposal methods outlined by the SPRs will be applied in the project area (**SPRs GEO-3, GEO-4**).

LISTED AND SPECIAL-STATUS PLANT SPECIES:

Up to 5 years prior to operations, a qualified RPF will perform surveys to identify listed and/or special-status plant species, and/or presence of habitat for listed or special-status species. Surveys will occur per CDFW protocol (**SPRs BIO-3, BIO-7**). If listed or special-status plant species are identified during surveys, the RPF will provide a written report to CDFW with location information and proposed protection measures. A no disturbance buffer will be flagged in the field around listed plants (**MM BIO-1a**). There will use of herbicides within 100 feet of identified listed plant species (**MM BIO-1a**). If operations cannot be conducted with a no operations buffer for listed plants, the RPF will consult with CDFW and prepare a Compensatory Mitigation Plan and comply with **MM BIO-1c**. For non-listed sensitive plants, the project proponent will attempt to time operations during the dormant period (**SPR BIO-7** and **MM BIO-1b**). If operations occur outside the dormant period, the RPF will determine an appropriate no operations buffer and recommend hand falling away from these sites (**SPRs BIO-1, BIO-4** and **MM BIO-1b**). There will be no application of prescribed fire treatment (burn piles or broadcast burning) or herbicide use within a listed or special-status plant's no-operations buffer.

LISTED AND SENSITIVE ANIMAL SPECIES:

Within 3 weeks of operations, a qualified RPF will perform surveys to identify potential listed and/or sensitive animal species per protocols approved during consultation with CDFW and/or USFWS (see Attachment B – Biological Resources, below) (**SPRs BIO-1, BIO-10, BIO-12** and **MMs BIO-2a, BIO-2b**). If during surveys listed or sensitive animals are identified as non-transient occupants of (or adjacent to) the project area, an attempt to conducted operations outside of that species breading/nesting/rearing season will be made (**SPR BIO-1**). If operations cannot be conducted outside a listed/sensitive species sensitive season, the RPF will consult with CDFW and/or USFWS to determine appropriate avoidance protection measures for the identified species (**SPRs BIO-10, BIO-12** and **MMs BIO-2a, BIO-2b**). If non-transient common nesting birds (including raptors) are identified in the project area, the RPF will perform one (or more) of the following: establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted; modify the treatment from mechanical to hand work; and/or defer treatment within the buffer until the species nesting season has concluded. The RPF will monitor the raptor nest sites during the potential culmination of operations and occupancy. In general, trees with raptor nests will be retained (**SPR BIO-12** and **MM BIO-2b**). To protect the California red legged frog, and other sensitive terrestrial amphibians and/or aquatic species, heavy equipment operations will be limited to stable operating surfaces and not on saturated soils, additionally, heavy equipment operations, prescribed herbivory, and herbicide treatments will be suspended during heavy precipitation as outlined in **SPR GEO-1**. To further protect aquatic species, the project proponents will instruct operators to ensure stormwater is drained via water breaks per **SPR GEO-5**.

Prior to beginning a treatment project, a qualified RPF will discuss with the operator and crew members the potential for disturbing sensitive species and/or habitats. Known species and habitats will be mapped and reviewed, and the measures in place to protect them will be discussed. Operators will be provided pertinent maps and photos. In the event a species or habitat is encountered during operations, operators and crew members will be instructed to cease operations and immediately notify the project proponent and qualified RPF (**SPR BIO-2**).

Other Considerations

To further protect Sensitive Habitats, operators will also be instructed by the project proponents and/or RPF to prevent spread of disease (especially *Phytopthora*), invasive plants, noxious weeds, and invasive wildlife. Additionally, (per the FPRs) measures will be taken to control pine related pathogens and insects (e.g. pine bark beetles) (**SPRs BIO-6, BIO-9**)

To protect animal migration, the project proponents will work with a qualified RPF or biologist and instruct contractors to use a wildlife-friendly fencing design (as described in the **SPR BIO-11**) during prescribed herbivory treatments.

BROADCAST BURNING TREATMENTS:

The project proponents will work with CAL FIRE to create burn plan that excludes ignition and use of chemical accelerants in sensitive habitats (**SPR AQ-3**).

Impact BIO-1

See also, Discussion, above for applicable SPRs and Mitigation Measures. See also Attachment B – Biological Resources, below.

To minimize fugitive dust and reduce potential impacts on special-status plants, the project proponents will require operators to implement the measures in **SPR AQ-4**. See also PD-3.3 Air Quality, above.

To minimize erosion (and sensitive plant disturbance) the project proponent will prohibit use of heavy equipment in the following areas of the project: on slopes steeper than 65 percent and/or on slopes steeper than 50 percent where the erosion hazard rating is high or extreme. Additionally, 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 the following areas: Existing tractor roads that do not require reconstruction, or new tractor roads flagged by the project

proponent (or RPF) prior to the treatment activity (**SPR GEO-7**). See also 3.6: PD-3.6: GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES, below for additional erosion control measures.

Impact BIO-2

See also, Discussion, above and Attachment B – Biological Resources, below. See also PD-3.9: Hazardous Materials, Public Health and Safety, below (**SPRs HAZ-5, HAZ-6**). See also PD-3.10: Hydrology And Water Quality (**SPRs HYD-1, HYD-4**).

To further protect water quality during prescribed herbivory treatments, the project proponents will instruct operators to do the following: install fencing to avoid sensitive habitats, provide a portable water source (where a stock pond does not exist), and monitor and avoid accelerated soil erosion; removing livestock when necessary (**SPR HYD-3**).

To further protect non-target vegetation during herbicide treatments, the project proponents will identify (by map and in the field) sensitive sites and/or areas of protected vegetation for the Licensed Applicator to avoid (50' for a listed species) and other measures in **SPR HYD-5**.

The project proponent will adhere to all the applicable SPRs and Mitigation Measures, and consequently, there should be no mortality, injury, or disturbance and/or loss of habitat function for Special-Status wildlife species as a result of this project (**MM BIO-2c**).

Impact BIO-3

See also, Discussion, above for applicable SPRs and Mitigation Measures. See also Attachment B – Biological Resources, below.

This project will not change the existing habitat type, but will temporarily modify it (reduce a percentage of vegetation), and may help to restore some areas to conditions that more closely resemble a Sensitive Natural Community. The Oregon white oak woodland and forest is the most likely Community to be restored by this project. See also, Project Description and Discussion, above.

The Communities listed on the CNDDB "9-Quad Search" in May of 2024 are Coastal and Valley Freshwater Marsh, Coastal Brackish Marsh, Coastal Terrace Prairie, Mendocino Pygmy Cypress Forest, and Northern Coastal Salt Marsh. None of these communities are in the project area. The following table compares the Sonoma Veg Map (SVM) Unit with a potential Sensitive Natural Community. None of the project area contains a true Sensitive Natural Community. See table in Attachment B – Biological Resources, below for more information.

Sonoma County Vegetation & Lidar Program's Sonoma Veg Map (SVM) (https://sonomavegmap.org/) polygons were reviewed via aerial imagery and field visits.

Impact BIO-4

See also, Discussion, above and Attachment B – Biological Resources, below.

State and Federally protected wetlands will be avoided during mechanical, prescribed herbivory, and herbicide treatments (**SPRs BIO-4, HYD-4**). Some State and Federally protected wetlands have been mapped by the USFWS (WMI). All of the "Riverine" habitat on the WMI is based on coarse USGS maps and are poorly mapped. Lidar and field review will ensure the watercourses are properly mapped and flagged for avoidance.

Additional unmapped watercourses, springs, seeps, and seasonal wet areas, will be mapped and also flagged for avoidance.

Impact BIO-5

See also, Discussion, above and Attachment B – Biological Resources, below.

There may be temporary disturbance in the project units lasting days a few weeks, however the project treatments should not permanently alter the ability for wildlife to move through the area or degrade potential nursery habitat value. Smaller diameter understory vegetation is the target for removal in these previously

altered landscapes. Reduction of understory plants my improve movement of larger game and bird species. Nursery habitat will be protected as larger snags with high habitat value will be retained.

Impact BIO-6

See Discussion, above and Attachment B – Biological Resources, below.

While common wildlife is not subject to required surveys in the manner of listed or special-status species, observance of individual nests and/or nesting activities will also be considered by individuals falling trees and equipment operators walking the project to familiarize themselves with the terrain. The project proponent will instruct operators and crew to inform them of wildlife activity and avoid (skip and fall away from) individual trees or other areas with active nests until the general nesting season is past (Aug 15th).

Impact BIO-7

The project is entirely in Rural Residential, Agricultural, or Timber Production zones rural Sonoma County. These ordinances for these zoning types allow for forestry related treatments on the participating parcels. Some of the parcels in the project area are zoned with Combining Districts (e.g. RC=Riparian Corridor, OAK= Oak Woodland Ordinance). The RC District protections are pertinent to construction activities and the OAK ordinance is pertinent to forest conversion activities and includes an exemption for "Fire Risk Reduction" and "Hazardous, Dead, Dying, or Diseased Tree Removal". (**SPR AD-3**).

See also, Discussion, above and PD-3.9: Hazardous Materials, Public Health and Safety, below about County herbicide use requirements.

Impact BIO-8

There are no ANCCPs, HCPs, or other Approved Habitat Plans for the project area.

New Biological Resource Impacts

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to biological resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to biological resources would occur.

3.6: 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:								

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 GEO-1: Result in Substantial Erosion or Loss of Topsoil	LTS	Impact GEO-1, pp. 3.7-26 – 3.7-29	**GEO-1 through GEO-8**	**YES**	**NA**	**LTS**	**NO**	**YES**
Impact GEO-2: Increase Risk of Landslide	LTS	Impact GEO-2, pp. 3.7-29 – 3.7-30	**GEO-3, GEO-4, GEO-7, GEO-8**	**YES**	**NA**	**LTS**	**NO**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New Geology, Soils, Paleontology, and Mineral Resource 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

Discussion

The geology in the project area is influenced by the San Andreas Fault. Each plate of the Fault exhibits distinct rock and soil types that have unique characteristics. On the east side of the San Andreas Fault is the Franciscan Formation, characterized by a mélange of sandstone and shale. This folded and twisted surface and subsurface rock can be friable in some places, where it is vulnerable to erosion and unstable areas.

Soils in the area are primarily mesic loams, gravelly loam, and clay loam soil complexes. These soils are underlain by weathered sedimentary rock and marine terrace material, alluvium derived from sedimentary rock, sandstone and shale, or weathered coarse-grained sandstone. The following table lists soils in and around the project:

Table 3.6a Project Soils and Erosion Hazard Ratings (EHR)

Abrev.	Soil Series Name	Actual Average Slopes[1]	Max Slopes	EHR[2]	Percent of Project Area	Unit Locations[3]
AdA	Sandy Alluvial Land	35%	68%	Extreme	1%	MR7d
AtF	Atwell Clay Loam, 30 to 50 % slopes	31%	58%	Low	<1%	HR6
BoE	Boomer Loam, 15 to 30 % slopes	12%	14%	Mod	<1%	BR4
BoF	Boomer Loam, 30 to 50 % slopes	26%	59%	Mod	1%	BD3
BoG	Boomer Loam, 50 to 75 % slopes	58%	77%	High	1%	BJ5
HkG	Hugo Very Gravelly Loam, 50 to 75 % slopes	45%	82%	High	16%	SR1a, CC2b, BD3, BR4, BJ5, HR6, MR7a, MR7b, MR7c
HkG2	Eroded Hugo Very Gravelly Loam, 50 to 75 % slopes	35%	51%	High	<1%	BR4
HlF	Hugo-Atwell Complex, 30 to 50 % slopes	30%	68%	Mod	12%	SR1b, BD3, HR6
HmF	Hugo-Boomer Complex, 30 to 50 % slopes	26%	58%	High	1%	HR6
HmG	Hugo-Boomer Complex, 50 to 75 % slopes	42%	75%	High	16%	SR1a, CC2a, CC2b
HnG	Hugo-Josephine Complex, 50 to 75 % slopes	40%	87%	High	17%	SR1b, BD3, BR4, BJ5, HR6
HnG2	Eroded Hugo-Josephine Complex, 50 to 75 % slopes	31%	68%	High	10%	SR1a, BR4
JoF	Josephine Loam, 30 to 50 % slopes	19%	72%	Mod	2%	BD3, BJ5
KoG	Kneeland Rocky Complex, 30 to 75 % slopes	44%	91%	Mod	1%	MR7d
LhG	Laughlin-Yorkville Complex, 30 to 75 % slopes	42%	75%	High	1%	BD3, MR7a
ShF	Sobrante Loam, 30 to 50 % slopes	31%	52%	High	2%	HR6

Abrev.	Soil Series Name	Actual Average Slopes[1]	Max Slopes	EHR[2]	Percent of Project Area	Unit Locations[3]
StF	Suther Loam, 30 to 50 % slopes	35%	75%	Mod	3%	SR1a
YuF	Yorkville Clay Loam, 30 to 50 % slopes	35%	80%	Mod	15%	SR1a, SR1b, HR6, MR7d

[1]Average slopes in the project calculated with GIS. [2]Erosion Hazard Ratings as calculated with the Board Of Forestry Technical Rule Addendum #1 worksheet. Shaded rows have High or Extreme EHRs. [3]Units are explained in the Project Description section of the Environmental Checklist.

There are no volcanic soils and no known serpentine soils in or within 100 feet of the project. In Sonoma County Henneke, Huse, and Montara, Soil Series are comprised of serpentine soils and the Yorkville Soil Series is underlain by weathered serpentinized igneous rocks. See also, PD-3.5: Biological Resources, Above.

Treatment areas in the project range in elevation from sea level to approximately 1,700 feet. The landscape is generally west, southwest, or southeast-facing. Most slopes in the project are low to moderate; but approximately 33% of slopes exceed 50% (56 acres). Most of the Project area has a High Erosion Hazard Rating (64%) and about 34% has a Moderate EHR.

Erosion

While removal of low growing groundcover that is not considered carrying fuels (e.g. oxalis under redwood trees), some of the treatments will result in varying amounts of exposed soil. Moderate disturbance of topsoil due to equipment operations, however the main controllable source of erosion (and dust) will be from roads and trails used for project implementation. Prescribed herbivory and broadcast burning treatments will likely expose a larger percentage of bare soil and pile burning will certainly expose close to 100% of the bare soil at the location of ignition.

Several SPRs address and will quell a level of erosion that could lead to disturbance of multiple resources. Equipment operators will be instructed to adhere to the Ca. Forest Practice Rules and Regional Water Quality Control Board's (RB1) timber requirements (**SPR HYD-1**). Potential erosion from all treatment types (but especially prescribed herbivory, or prescribed burn treatments) will be addressed by implementing Watercourse and Lake Protection Zones avoidance measures, including those specific to prescribed herbivory (**SPRs HYD-4, HYD-3**). See also, PD-3.5: Biological Resources, above and PD-3.10: Hydrology And Water Quality, below. If mechanical, prescribed herbivory, or prescribed burn treatments result in exposure of bare soil over 50 percent or more of the treatment area, measures will be taken to stabilize disturbed soil areas; EHRs in the project area are moderate or high, accordingly, at least 75 percent of the disturbed soil surface will be slash packed or mulched with chips, masticated material or clean straw (**SPR GEO-3**).

To further minimize erosion (and potential for landslides), treatments that utilize heavy equipment will restrict operations to slopes under 65% and to existing trails (not in need of reconstruction) or clearly flagged proposed trails in areas with slopes between 50-65% in Moderate EHR areas. In High and Extreme EHR areas and on slopes that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake, heavy equipment restrict operations to slopes under 50%. (**SPR GEO-7**).

The project proponents will take measures to minimize dust including limiting travel speeds on dirt roads to 15 MPH, limiting dust producing operations on windy days, and wetting project roads when and to the degree necessary to limit fugitive dust. Only Unit HR6 is adjacent to a public road (Fort Ross Road) and measures will be taken to remove visible dust, silt, or mud tracked-out on to Fort Ross Road where sufficient water supplies and access to water is available (**SPR AQ-4**).

The project proponents will require operators to install erosion control measures suitable to the level of exposure and proximity to sensitive areas (**SPR GEO-3**). The project proponents (or a contracted RPF) will conduct erosion monitoring prior to the rainy season and again after the first major hydrological event (≥ 1.5 inches in 24 hours) where mechanical, and prescribed herbivory treatments, and prescribed burns occur (**SPR GEO-4**). For projects utilizing heavy equipment, and that require an erosion control structure dependent on that

equipment (e.g. construction of waterbars), the project proponents (or a contracted RPF) will conduct erosion monitoring prior to the demobilization of that equipment.

Unstable Areas

Unstable areas in this part of Sonoma County are characterized by the mass movement of soil and an accompanying layer of vegetation. Specific soil types containing high concentrations of sand or gravel are defined as unstable in their characteristics. They can be identified in the field by observing hummocky (bumpy) topography, tension cracks, slope scarps, headwall scarps, lateral scarps, and irregular bowl-shaped slopes that indicate historical slope failures. Leaning or "J"-shaped trees are another indicator of active slope instability. Unstable soils combined with springs and seeps will create slope instability that can lead to landslides. The California Geological Survey (CGS) produced a series of maps showing landslides and relative slope stability based on soil type, topography, and aerial photographs. These maps are especially useful in determining the appropriateness of using heavy equipment in the project area. Field reviews are used to determine current conditions and suitability. The CGS Report 120 identifies potential landslides and land stability in parts of Sonoma County. Mapped unstable areas in the project area may be inactive or incompletely mapped. Most can be confirmed with Lidar imagery, and all will be confirmed, flagged and GPSed prior to operations. Field review prior to implementation will determine the occurrence of active or potential unstable areas in or adjacent to the proposed project area. If unstable areas are discovered, avoidance measures defined in the Standard Project Requirements will be implemented. Consultation with a DPR or CGS geologist may be needed to review avoidance measures.

CGS mapped the following unstable area: a portion of Unit SR1a, Seaview Ranch Road, has a dormant Earth Flow detected from imagery in 2015. The following Units are also known to have (verified in the field), or potentially have (viewed on lidar) unstable areas: portions of units SR1a, CC2a, BD3, BR4, BJ5, HR6, and MR7d.

The entire project has soils with an EHR of Moderate to Extreme, accordingly, for treatments with heavy equipment and/or in the mapped WUI, the project proponent will require an RPF to evaluate treatment areas with slopes greater than 50% to determine their stability. If deemed potentially unstable (active or historic) the RPF will flag that area for avoidance. If avoidance is not feasible the project proponents will consult with a licensed geologist to determine feasible limits to operations (**SPR GEO-8**). Several portions of the project are within the modeled WUI; units SR1b, BD3, BR4, BJ5, and HR6.

Impact GEO-1

See also, Discussion, above and PD-3.10: Hydrology and Water Quality, below.

To further prevent erosion or loss of topsoil, the project proponents will require the operator to suspend mechanical, prescribed herbivory, and herbicide treatment activities during heavy precipitation (**SPR GEO-1**), and/or saturated soil conditions (**SPR GEO-2**).

The project proponents will also require operators install water breaks on project roads and trails per the Ca Forest Practice Rules to meet the Moderate, High, or Extreme EHR required distances (depending on location) (**SPR GEO-5**).

During pile burn treatments, the project proponent will require operators to limit Burn Pile Size to meet both NoSoCo Air permit requirements and **SPR GEO-6**.

Impact GEO-2

See also, Discussion, above.

Wildfire, burn piles, or broadcast burning may affect soil nutrients, structure, and ultimately slope stability. If fires are too hot and/or have a long duration on the landscape (burning larger fuels), there is a potential for pyrolization of soil components to occur. Additionally, burning of waxy vegetation can lead to hydrophobic soils. Although erosion after wildfires mainly depends on the weather the year immediately following the fire, managers can utilize fire modeling to develop appropriate prescriptions to minimize damage to soils. The project proponents will work with CAL FIRE to create a burn plan with the proper prescription for use of fire including

pre-treatment of fuels, controlling the speed of the fire, controlling direction of heat travel, and consideration of soil moisture content during implementation (**SPR AQ-3**). Given the variable topography in some of the treatment areas, the remoteness of the area, steep terrain, and wet winter conditions, there is the potential for landslides in the project area. The potential for treatment activities to increase landslide risk was examined in the PEIR. This impact is within the scope of the PEIR because the extent of vegetation removal, intensity of prescribed burning, and characteristics of the geographical terrain are consistent with those analyzed in the PEIR.

New Geology, Soils, Paleontology, and Mineral Resource Impacts

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.7.1, "Environmental Setting," and Section 3.7.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR and revisions to SPRs constitute a revision to the Program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to geology and soils that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR.

3.7: 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, pp. 3.8-10 – 3.8-11	**YES**	**NA**	**NA**	**LTS**	**NO**	**YES**
Impact GHG-2: Generate GHG Emissions through Treatment Activities	PSU	Impact GHG-2, pp. 3.8-11 – 3.8-17	**YES**	**AQ-3**	**GHG-2**	**PSU**	**NO**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New GHG Emissions Impacts: Would the treatment result in other impacts to GHG emissions that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

Discussion

The treatments in this shaded fuel break project will generally off set CO_2 produced by the use of fire and equipment, and have a long-term positive effect on carbon sequestration by all of the following: increasing forest health by removing dead and dying trees, spacing out existing trees to increase growth rates, reducing ladder fuels which will help to prevent catastrophic wildfires, and creating space for new trees to be planted and other trees to sprout. The growth of this forest post-project will have a positive effect on greenhouse gasses as it proposes to store more carbon over time than it is currently releasing during a proposed operation.

Additionally, removing the dead and dying trees and ladder fuels will reduce the risk of catastrophic fire that would have a much higher contribution to greenhouse gasses. See also PD-3.3: Air Quality, above for information on limiting emissions from prescribed fire and mechanical operations treatments (**SPR AQ-3**).

In general, the mechanical, manual, prescription burning (broadcast and pile burns), prescribed herbivory, and herbicide treatments will all contribute to GHG emissions, however broadcast burning is 99% more emissive than even mechanical treatment. For this project, this treatment is planned for project maintenance in areas where the mitigation measures GHG-2 can be achieved. Broadcast burning is a historic and pre-historic component to the ecology of the area, and it is important to use this tool in measured and controlled ways.

Transportation is another obvious GHG emission source and is addressed in PD-3.3: Air Quality, above (e.g. **MM AQ-1**).

This project is not a registered offset project under California Assembly Bill 1504 California Forest Ecosystem and Harvested Wood Product Carbon Accounting.

Impact GHG-1

See also, Discussion and PD-3.3: Air Quality, above.

Initial and maintenance treatments include the use of mechanical equipment and prescribed burning, which would result in greenhouse gas (GHG) emissions. Consistency of treatments under the CalVTP with applicable plans, policies, and regulations aimed at reducing GHG emissions was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.8.3). **SPR GHG-1** is applicable to this project.

The California Forest Carbon Plan ("Forest Plan", CARB 2018) implements policies to meet the carbon reduction goals for forests as embodied in the California Climate Change Scoping Plan (2017). The Forest Plan would increase the rate of forest restoration and fuels reduction treatments by mechanical/manual thinning and by prescribed fire to ensure that the State's continuing timber operations contribute to the achievement of healthy and resilient forests that remain a net sink for carbon.

Projects that contribute smoke from pile burning and/or broadcast burning (also referred to as prescribed fire in the PEIR) are regulated by the NoSoCo Air and/or CAL FIRE via a Burn Plan and Smoke Management Plan. All necessary permits will be obtained prior to the start of operations and the project proponent will require operators to follow permit procedures to ensure the project complies with air quality protection standards (**SPRs AQ-2, AD-3, AQ-3**).

Impact GHG-2

See also, Discussion and PD-3.3: Air Quality, above.

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in GHG emissions. The potential for these treatments to generate GHG emissions were analyzed in the PEIR (CalVTP Final PEIR volume II Section 3.8.3, pages 11-17. This impact is within the scope of the PEIR because the proposed activities, as well as the associated equipment and duration of use, and the intent of the treatments to reduce wildfire risk and GHG emissions related to wildfire are consistent with those analyzed in the PEIR. **Mitigation Measure GHG-2** would be implemented and would reduce GHG emissions associated with the prescribed burning. However, emissions generated by the treatment would still contribute to the annual emissions generated by the CalVTP, and this impact would remain significant and unavoidable, consistent with, and for the same reasons described in, the PEIR. **SPR AQ-3** is also applicable to this treatment and will contain the description of feasible GHG reduction techniques implemented per **MM GHG-2**.

For pile burning, the project proponents will require operators adhere to the NoSoCo Air permit requirements, as they are partially designed to reduce GHG emissions (**SPR AQ-2, AD-3** and **MM GHG-2**).

For broadcast burning treatments, a Burn Plan and Smoke Management Plan will be created and will include the following measures to reduce GHG emissions during operations: 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. (For this project, broadcast burning will be a maintenance treatment and will occur after other initial treatment methods are used to remove fuels.); and schedule burns before new fuels appear (**SPRs AQ-2, AQ-3** and **MM GHG-2**).

New Impacts Related to GHG Emissions

Impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present would not give rise to any new significant impacts. Therefore, no new impact related to GHG emissions would occur.

3.8: 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, pp. 3.9-7 – 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. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New Energy Resource 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

Discussion

There is no access to grid-based power in the project area, so only fossil fuels are available for equipment use.

This is a short-term project that will be implemented during daylight hours in a moderately temperate climate, and accordingly, will not require artificial lighting or heating.

Impact ENG-1

Initial and maintenance treatments will require the consumption of energy through the use of chainsaws, mechanical equipment, other mechanized hand tools, and transporting personnel to and from the work site. The potential for impacts to result in wasteful, inefficient, or unnecessary consumption of energy and the use of fossil fuels was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.9.3, pages 7-8). The consumption of energy during implementation of the treatment project is within the scope of the PEIR because the types of activities, as well as the associated equipment and duration of proposed use, are consistent with those analyzed in the PEIR. There are no SPRs applicable to this impact.

The best way to conserve energy is to move equipment and operators around in an efficient manner; staging project progression so that the larger pieces of equipment can be hauled from one project section to the next closest section will save fuel and operator time.

Additionally, working with forest landowners in the community to coordinate project timing to coincide with other nearby forestry projects (specifically equipment haul-in and haul-out) could significantly reduce energy use, operator time, and project costs attributable to equipment hauling.

New Energy Resource Impacts

The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable regulatory and environmental setting conditions developed in the PEIR (CalVTP Final PEIR Volume II Section 3.9.1 and 3.9.2). The circumstances under which the proposed treatment project would be undertaken are also consistent with those considered in the PEIR. No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to energy use would occur that is not covered in the PEIR.

3.9: 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, pp. 3.10-14 – 3.10-15	**YES**	**HAZ-1**	**NA**	**LTS**	**NO**	**YES**
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2, pp. 3.10-15 – 3.10-18	**YES**	**HAZ-5 HAZ-6 HAZ-7 HAZ-8**	**NA**	**LTS**	**NO**	**YES**
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	PS	Impact HAZ-3, pp. 3.10-18 – 3.10-19	**YES**	**None**	**MM HAZ-3**	**PS**	**NO**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New Hazardous Materials, Public Health and Safety Impacts: Would the treatment result in other impacts related 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

Discussion

Proposed project actions include the use of chainsaws and motorized equipment for falling of dead and dying trees, slash treatment including mastication, pile-burning, conducting understory broadcast burning, and possibly the use of herbicides to control exotic/invasive or overstocked plant species. Potentially hazardous materials required for operations include the following: fluids such as motor vehicle and mechanical equipment fuels and fluids, oils and other lubricants, and herbicides. There will be no equipment maintenance (including refueling of equipment) within a WLPZ (see 3.10 Hydrology And Water Quality, below) (**SPR HYD-4**). Hazardous materials will be contained within vessels engineered for safe storage and there will not be large quantities of these materials stored at or transported to the project site. Spills or malfunction of a hydraulic system can be avoided with careful operation and proper equipment maintenance required by the project proponent.

Some landowners in or adjacent to the project area have the ability to apply "Dust Off" (Magnesium Chloride) or a similar product to mitigate fugitive dust from roads in the dry months, however this project will rely on water to control fugitive dust when needed.

According to the CalDTS's EnviroStor database, no hazardous materials sites (evaluated, mitigated or otherwise) were identified within 3 miles of the project area. No on-site storage facilities or other structures or industrial sites that could contain hazardous materials are located in the project area (**MM HAZ-3**).

There are no hospitals, clinics, schools or other spaces open to the public within a mile of the project.

The project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Post-project emergency access routes may be improved.

See also 3.16 Wildfire, below.

Impact HAZ-1

Initial and maintenance treatments would include the use of manual, mechanical, prescribed fire and targeted herbicide treatment activities, all of which require the use of hazardous material. These activities would require the transportation, use, and storage of petroleum products (fuels, oils, and lubricants).The potential for treatment activities to create a significant health hazard from the use of hazardous materials was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, pages 14-15). **SPRs HAZ-1 through HAZ-4** are all applicable to this project. All equipment associated with the proposed project will comply with **SPR HAZ-1** to ensure proper maintenance and minimize leaks. **SPR HAZ-2** requires mechanized hand tools to have spark arrestors and will be implemented to minimize the risk of potential ignitions. Based on the proper storage and transportation of fuels and oils, the use of PPE, and the implementation of the applicable SPRs, the potential for this project to result in significant health hazards from the use of hazardous materials is less-than-significant. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

To ensure community support and cooperation with this project, the project proponents seek to maintain a relatively unpolluted condition within the project area post-project. The project proponents will require the operators properly maintain all equipment and perform inspections for leaks prior to the start of a project and each day thereafter (**SPR HAZ-1**).

There will be no pile burning or ignition of a broadcast within the WLPZ (**SPR HYD-4**). See also 3.10 Hydrology and Water Quality, below).

Impact HAZ-2

There will be no herbicide use within 500 feet of public recreation areas, residential areas, schools, or any other public areas.

An herbicide applicator certified by the California Department of Pesticide Regulation (DPR) will supervise herbicide treatments; following all pesticide label directions as well as County, State and Federal regulations (**SPR HAZ-6**). Their duties will include creation of a Spill Prevention and Response Plan (SPRP) and employing a triple rinse of herbicide containers (**SPR HAZ-7**). 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 (**SPR HAZ-5**).

This impact is within the scope of the PEIR because the types and locations of treatments and associated equipment and types of hazardous materials that would be used are consistent with those analyzed in the PEIR. All equipment associated with the proposed project will comply with **SPR HAZ-1** to ensure proper maintenance and minimize leaks. **SPR HAZ-2** requires mechanized hand tools to have spark arrestors and will be implemented to minimize the risk of potential ignitions. Based on the proper storage and transportation of fuels and oils, the use of PPE, and the implementation of the applicable SPRs, the potential for this project to result in significant health hazards from the use of hazardous materials is less than significant. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Herbicide application will only occur on dry windless days, to minimize herbicide drift (**SPR HAZ-8**), and when no rain is forecast for 24 hours before or after treatment (**SPR HYD-5**).

Impact HAZ-3

Initial and maintenance treatments proposed under this project include mechanical and prescribed burning treatment activities, which have the potential to disturb soils and expose workers, the public, or the environment to hazardous material if a contaminated site is present within the project area. The potential for the treatment activities to disturb or encounter contaminated sites that could expose workers, the public, or the environment to hazardous materials was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, page 18-19). **No SPRs are applicable to this impact**. As directed by Mitigation Measure HAZ-3, database searches for hazardous materials were performed utilizing the Department of Toxic Substances Control (DTSC) Cortese List as well as DTSC EnviroStor web search. Based upon records searches, there are no known hazardous waste sites identified within the proposed project area. Therefore, this impact is reduced to less than significant.

See also Discussion. The project proponents have coordinated with landowners to determine previous land uses and the potential for hazardous wastes in the project area. There are no known hazardous waste sites in or adjacent to the project area (**MM HAZ-3**). The 100-foot equipment limitation buffer around buildings will also decrease the likelihood of disturbing unknown hazardous waste.

New Hazardous Materials, Public Health and Safety Impacts

For the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to hazardous materials, public health, or safety would occur.

3.10: 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, pp. 3.11-25 – 3.11-27	**YES**	**AQ-3 BIO-4 GEO-4 GEO-6 HYD-1 HYD-4**	**NA**	**LTS**	**NA**	**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, pp. 3.11-27 – 3.11-29		**HYD-1 HYD-4 GEO-1, GEO-2, GEO-3, GEO-4 GEO-7, GEO-8**	**NA**			

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-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, p. 3.11-29		**HYD-3**	**NA**			
Impact HYD-4: 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 Ground Application of Herbicides	LTS	Impact HYD-4, pp. 3.11-30 – 3.11-31		**BIO-4** **HAZ-5** **HAZ-7** **HYD-5**	**NA**			
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5, p. 3.11-31		**GEO-5** **HYD-1 through HYD-4** **HYD-6**	**NA**			

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

The project area is located in the following Hydrologic Areas (HA) and Calwater watersheds (as described by the watershed mapping system http://egis.fire.ca.gov/watershed_mapper/#): Gualala River HA: Upper Marshall Creek (1113850101), Upper South Fork Gualala River (1113850104); Lower Russian River HA: Ward Creek (1114120004); Russian Gulch HA: Black Mountain (1113900002). All of the watersheds in the project area drain into the Pacific Ocean and contain habitat for anadromous and other aquatic species.

The Gualala River HA and Russian River HA are currently listed under Section 303(d) of the Clean Water Act as too polluted to meet state water quality standards. The Russian Gulch HA has not been fully assessed. The 303(d) listing is regulated on the state level by the Water Quality Control Policy for developing California's Clean Water Act Section 303(d) Listing Policy. Forest health improvement projects that utilize heavy equipment or ground disturbing activities create an opportunity to release excess sediment. This project is designed to avoid unnecessary disturbance and further comply with applicable Water Quality waste discharge requirements in the Basin Plan for the North Coast (**SPR HYD-1**).

Water resources in and adjacent to the project consist of Class I, Class II-Large, Class II-Standard, numerous small Class III watercourses, at least 1 spring and some seeps. Class I watercourses (portions of South Fork Gualala,

Marshall Creek, Ward Creek, and Russian Gulch) are fish-bearing streams. Some Class II watercourses and tributaries (including Blue Jay Creek, and several unnamed tributaries) host aquatic species several months most years. Many of the Class II and III watercourses are dry for several months each year and are considered "flashy," as they primarily drain water during and shortly after storm events.

The project proponents will instruct an RPF to identify (in the field) and determine avoidance protection for a watercourses, springs and seeps in and adjacent to the project. (**SPR HYD-4**). The RPF will use the California Forest Practice Rule's Watercourse and Lake Protection Zones (WLPZ) requirements 14 CCR Section 916.5 [936.5, 956.5] (February 2019 version) will be used to protect watercourses, springs and seeps in and adjacent to the project. WLPZ areas for known watercourses have been preliminary mapped based on previously mapped conditions in the project area, however, they will be finalized and flagged in the field by a qualified forester with flagging prior to operations. All domestic springs and other springs and seeps with sensitive species present, will be flagged for avoidance (**SPR HYD-4**).

Treatments in riparian habitats have been designed under consultation with an RPF to avoid loss or degradation of riparian habitat function per **SPR BIO-4**. In general, a 30-foot no heavy equipment operations area (that allows for use of existing watercourse crossings) will be flagged in the field around all Class I, II, and III watercourses. Within that 30-foot buffer, work will be limited to pruning, cutting small trees which do not affect overstory canopy, and hand lopping; heavy equipment will be limited to existing roads. Project treatments should not lead to the loss of sensitive natural communities.

Erosion monitoring will be performed, during operations, prior to a forecast significant rain event (1/2" or greater), and of after the first large storm. Clean straw spread to 4" deep will be used to mitigate substantial sediment discharge discovered during monitoring (**SPR GEO-4**).

Several of the impacts below (i.e., HYD-1 through 4) evaluate compliance with water quality standards or waste discharge requirements. All include implementation of **SPR HYD-1**, which requires compliance with such water quality regulations. The State Water Resources Control Board is requiring all projects using the CalVTP PEIR to follow the requirements of their Vegetation Treatment General Order, which would meet the requirements of **SPR HYD-1**. Users of the CalVTP PSA process are automatically enrolled in the General Order and are required to implement all applicable SPRs and mitigation measures from the PEIR. In addition, the General Order requires project proponents to comply with any applicable Basin Plan prohibitions.

Impact HYD-1

The main concern for disturbance in this category is the use of broadcast burning (prescribed fire). The broadcast burn treatment will be used as a maintenance treatment. Riparian and other sensitive areas will be excluded from pile burning and any broadcast burns that are not considered "low intensity backing fires." See also Discussion above for other specific SPR considerations. A Burn Plan will be created for all broadcast burn treatments (**SPR AQ-3**). The project proponents have been working with local CAL FIRE RPFs for several years to understand feasibility and lay the groundwork for community-wide use of prescribed fire.

Pile burning for this project will be further permitted through, and adhere to the regulations of the Northern Sonoma County Air Pollution Control District (**SPR GEO-6**).

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also the same, as described above. SPRs applicable to this impact are **HYD-4, BIO-4, BIO- 5, GEO-4, GEO-6,** and **AQ-3**. As explained above, impacts on water quality resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute a new or substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-2

See also, Discussion, above and PD-3.6: Geology, Soils, Paleontology, and Mineral Resources, above.

To further protect water quality, the project proponents will require the operators to suspend disturbance during heavy precipitation (**SPR GEO-1**).

Initial treatment would include mechanical and manual treatments. Although most treatment areas would avoid streams and watercourses, WLPZs ranging from 50 to 150 feet will be implemented for any watercourses that are within treatment areas pursuant to **SPR HYD-4**. The potential for mechanical and manual treatment activities to violate water quality regulations or degrade water quality was examined in the PEIR. This impact is within the scope of the PEIR because the use of heavy equipment and hand-held tools to remove vegetation and associated impacts to water quality are consistent with those analyzed in the PEIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from manual and mechanical treatments is also the same, as described above. SPRs applicable to this impact are **HYD-1, HYD-4, HYD-5, GEO-1 through GEO-5, GEO- 7, GEO-8, BIO-1, HAZ-1,** and **HAZ-5**. This determination is consistent with the PEIR.

Impact HYD-3

See also, Discussion, above and PD-3.5: Biological Resources, above.

To further protect water quality, the project proponents will require the operator to apply additional water quality protections for prescribed herbivory (**SPR HYD-3**).

Impact HYD-4

See also, Discussion, above and PD-3.5: Biological Resources, above and PD-3.9: Hazardous Materials, Public Health and Safety, above.

To further protect water quality during herbicide treatments, the project proponents will identify (by map and in the field) WLPZs and sensitive sites for the Licensed Applicator to avoid, and will suspend the treatment if rain is forecast 24 hours before or after proposed treatment day or sustained winds at the site of application exceeds 7 miles per hour. The operator will only use approved products, mixing in areas devoid of vegetation (**SPR HYD-5**). The project proponents will require the Licensed Applicator provide a Spill Prevention and Response Plan specific to the project area (**SPR HAZ-5**)

Impact HYD-5

See also, Discussion, above and PD-3.6: Geology, Soils, Paleontology, and Mineral Resources, above.

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. The potential for treatment activities to substantially alter the existing drainage pattern of a project site was examined in the PEIR. This impact to site drainage is within the scope of the PEIR because the types of treatments and treatment intensity are consistent with those analyzed in the PEIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the impact related to alteration of site drainage patterns is also the same, as described above. SPRs applicable to this impact are **HYD-4, HYD-6,** and **GEO-5**. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

For mechanical, manual, and prescribed burn treatment activities, the project proponents will also require operators leave the main year-round use roads in good condition. There are a few existing trails that operators may use for access, and the operators will repair or install water breaks per the Ca Forest Practice Rules to meet the Moderate, High, or Extreme EHR required distances (depending on location). Clean straw mulch will be used in locations where drainage causes surface run-off to be concentrated on downslopes that lead directly to a watercourse or sensitive area (**SPR GEO-5**).

The project proponents will instruct operators to protect existing drainage systems and will coordinate with the operator and owner to assure operators repair damage that any occurs during implementation (**SPR HYD-6**).

The potential for mechanical treatments to substantially alter existing drainage patterns of the project site was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 30-31).

New Hydrology and Water Quality Impacts

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.11.1, "Environmental Setting," and Section 3.11.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR and revisions to SPRs constitute a revision to the Program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to hydrology and water quality that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. Impacts resulting from proposed revisions to SPRs and mitigation measures are consistent with the impacts analyzed in the program, as explained under relevant impacts above. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPRs and mitigation measures would not give rise to any new significant impacts. Therefore, no new impact related to hydrology and water quality would occur.

3.11: 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, pp. 3.12-13 – 3.12-14	**YES**	**AD-3**	**NA**	**LTS**	**NO**	**YES**
Impact LU-2: Induce Substantial Unplanned Population Growth	LTS	Impact LU-2, pp. 3.12-14 – 3.12-15	**YES**	**None**	**NA**	**LTS**	**NO**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

This shaded fuelbreak project is located on several multi-acre parcels zoned RRD (rural residential development), LEA (agricultural) or TP (timber production). These Sonoma County zonings all allow for commercial forestry activities. This project employs treatments similar to commercial forestry activities (**SPR AD-3**) and is designed to protect people, houses, and communities, from a destructive wildfire. The project will not physically divide an

established community, displace people or housing, or conflict with any local plans, policies, or ordinances. The project is not located in the Coastal Zone.

Impact LU-1

Treatment activities would occur within the project site, which is on a variety of private rangeland, remote residential, agricultural, and forest land designated lands in unincorporated Sonoma County. The potential for treatment activities to cause a significant environmental impact due to conflict with a land use plan, policy, or regulation was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.12.3, pages 13-14). SPRs AD 3 and AD-9 are applicable to this project. Several of the parcels involved have existing forest health management plans. No conflicts with a land use plan or policy would occur because the project would adhere to **SPR AD-3**.

Impact LU-2

There are annual commercial timber harvests in this potion of Sonoma County. Accordingly, there are multiple LTOs and other licensed and or bonded forestry crews available to implement this project. CAL FIRE's Region 1 Forest Practice office is located in the County as well (Santa Rosa). The project proponents worked with local CAL FIRE staff, LTOs and Forestry firms to ensure the treatments are feasible for implementation by existing qualified operators in this area. There is also little to no affordable housing or overnight lodging in the area, so this will discourage non-local contractors from bidding on this type of project and limit local contractor's ability to hire new employees from out of the area. The potential for initial and maintenance treatments to result in substantial population growth as a result of increases in demand for employees was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.12.3, pages 14-15). No SPRs are applicable to this impact.

Crews implementing the proposed project would typically range between 4- 10 personnel, and up to three crews would be working simultaneously to implement the proposed project. Impacts associated with short-term increases in the demand for workers during implementation of the proposed project are within the scope of the PEIR because the number of workers required for implementation of treatments is generally consistent with the crew size analyzed in the PEIR for the types of treatments proposed (i.e., two to 10 workers for mechanical treatments, and up to 10 workers for manual treatments. Employing local contractors will be encouraged where feasible to minimize the risk of impacting population and housing resources. Based on the consistency with the scope of the PEIR, this impact would remain less than significant.

New Land Use and Planning, Population and Housing Impacts

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.12.1 and 3.12.2). The Gold Ridge Fire Protection District and Coast Ridge Community Forest have also determined that the circumstances under which the proposed treatment project would be undertaken are also consistent with those considered in the PEIR. No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to land use and planning or population and housing would occur that is not covered in the PEIR.

Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing conditions that are pertinent to land use and planning, population and housing that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to land use and planning, population and housing would occur.

3.12: 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, pp. 3.13-9 – 3.13-12; Appendix NOI-1	**YES**	**AD-3 NOI-2 NOI-3 NOI-4 NOI-5**	**NA**	**LTS**	**NO**	**YES**
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	**YES**	**NOI-1**	**NA**	**LTS**	**NA**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

As discussed above, this project takes place entirely along private (association) roads on multi-acres parcels zoned RRD (rural residential development), LEA (agricultural) or TP (timber production) and the project treatments as planned are consistent with existing land and equipment uses in the area (**SPR AD-3**). See also 3.11 Land Use above. There are no nearby off-site noise-sensitive receptors (see also PD-3.3 Air Quality above) (**SPR NOI-6**).

In general operators are allowed to use noisy equipment during daylight hours (**SPR NOI-1**), however they will be encouraged (but not required) to limit noisy equipment use between the hours of 8AM and 6PM Monday-Saturday.

Operators are expected maintain and used equipment and power tools according to manufacturer specifications including using exhaust mufflers and engine shrouds (**SPR NOI-2, SPR NOI-3**). Equipment will be staged as far from habitable structures as is feasible and limit idle times (**SPR NOI-4, SPR NOI-5**).

Impact NOI-1

See also Discussion above. Vegetation alteration will not take place within 100 feet of habitable structures.

Initial and maintenance treatments proposed for this project including manual, mechanical, and prescribed fire treatment activities will require the use of heavy, noise-generating equipment. The potential for substantial short-term increase in ambient noise levels was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, pages 9-12). Manual, mechanical, and prescribed burning treatment activities as well as chipping/mastication and pile burning occurring adjacent to sensitive land uses could temporarily expose those receptors to noise levels that exceed local standards. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the PEIR. This impact is within the scope of the PEIR because the number and types of equipment proposed, and equipment use being temporary and sporadic, are consistent with the assumptions analyzed in the PEIR. The proposed treatments would not require the use of helicopters,

which was the loudest type of equipment evaluated in the PEIR. The project activities are not in conflict with the Sonoma County Noise ordinance or General Plan (right to farm ordinance).

Impact NOI-2

See Discussion and Impact NOI-1 above.

Vehicle traffic on area highways would not generate a noticeable increase in traffic-related noise. Haul truck trips on the local roadways would pass by residential receptors and the event of each truck passing by could increase the single event noise levels. The potential for a substantial short-term increase in single event noise levels was examined in the PEIR. This impact is within the scope of the PEIR because the number and types of equipment proposed are consistent with those analyzed in the PEIR. The haul trips associated with the treatment would occur during daytime hours, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours.

Initial and maintenance treatments would involve trucks hauling heavy equipment to the project area. Vehicle traffic on area highways would not generate a noticeable increase in traffic-related noise. Haul truck trips on the local roadways would pass by residential receptors and the event of each truck passing by could increase the single event noise levels. The potential for a substantial short-term increase in single event noise levels was examined in the PEIR. This impact is within the scope of the PEIR because the number and types of equipment proposed are consistent with those analyzed in the PEIR. The haul trips associated with the treatment would occur during daytime hours, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. **SPR NOI-1** is applicable to this treatment.

Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to noise that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to noise would occur.

New Noise Impacts

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.13.1, “Environmental Setting,” and Section 3.13.2, “Regulatory Setting,” in Volume II of the Final PEIR).

3.13: 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 pp. 3.14-6 – 3.14-7	**NA**	**None**	**NA**	**NA**	**NO**	**NA**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

As discussed above, this project takes place entirely along private (association) roads and there are no applicable plans, policies, or ordinances in place. A portion of the project in Muniz Ranches (Unit MR 7d) is within a mile of Sonoma State Beaches (Russian Gulch) and The Wildlands Conservancy's (Jenner Headlands Preserve), however there is no public access point (or public use) on the gated project road. Because of this, **SPR REC-1** does not apply to this project. Unit MR 7d is included in the Sonoma Land Trust Preserves Vegetation Treatment Project CalVTP PSA.

Impact REC-1

The initial and/or maintenance treatments proposed for this project may result in degradation of views and temporary decreased air quality to nearby recreation areas; but as treatment would be on private land, treatment activities would not directly impact recreation. The potential for treatment activities to disrupt recreational activities was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.14.3, pages 6-7). The temporary disruption of recreational activities during project implementation is within the scope of activities and impacts addressed in the PEIR because the treatments and associated equipment and duration of use is consistent with those analyzed in the PEIR, PSA Addendum – Impact REC-1. The project treatments as planned are consistent with existing land uses in the area; including those on Jenner Headlands Preserve and California State Parks. There should be no impact to recreation resources.

New Recreation Impacts

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.14.1, "Environmental Setting," and Section 3.14.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental conditions pertinent to recreation that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to recreation would occur.

3.14: 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	LTS	Section 3.15.2; Impact TRAN-1	**YES**	**TRAN-1**	**NA**	**LTS**	**NO**	**YES**

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?
Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures		pp. 3.15-9 – 3.15-10						
Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses	LTS	Impact TRAN-2 pp. 3.15-10 – 3.15-11	**YES**	**TRAN-1**	**NA**	**LTS**	**NO**	**YES**
Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP	PSU	Impact TRAN-3 pp. 3.15-11 – 3.15-13	**YES**	**None**	**AQ-1**	**PSU**	**NO**	**YES**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

As discussed above, this project takes place entirely along private (association) roads and there are no applicable plans, policies, or ordinances. There are also no existing transit stops or high-quality transit corridors withing a half mile. Most residents in and around the project have at least 2 routes available to exit the community (for example private roads connect the following County roads: Fort Ross Rd. to King Ridge Rd.; Bohan Dillon Rd. to King Ridge Rd.; Fort Ross Rd. to Hwy. 1). See also Project Description for the list of private roads in the project area. There will be no road alteration or new road construction (**SPR HYD-2**).

The project proponents will notify landowners and local emergency responders that utilize the project corridor road of the timing and effects of impending operations (start/end dates, potential delays, duration of operations, etc.) and recommend alternative routes for ingress and egress as needed. The project will not permanently block the road and/or lead to a delay of more than 8 hours (a workday). General wait times will likely be 20-30 minutes, and emergency workers and delivery companies will be immediately accommodated. At the end of each work day, the operator will clear the road for use by landowners overnight.

This project may cause a temporary increase in vehicular traffic along the following adjacent public roads: Fort Ross Road, Cazadero Highway, Meyers Grade/Seaview Ridge, and State Highway 1. However, the operators (as planned) are local residents and would be performing work (and subsequently using these same roads) regardless of existence of this project.

Impact TRAN-1

Initial and maintenance treatments have the potential to increase vehicular traffic due to hauling equipment and crew transportation to and from the project site. The potential for a temporary increase in traffic to conflict with a program, plan, or policy addressing roadways facilities or prolonged road closures was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, pages 9-10). **SPRs AD-3, HYD-2, TRAN-1** are all applicable to this project. The project affects private roads and a Traffic Management Plan is not necessary for this project. The operators will however provide signage and traffic control (as needed) during operational hours. This project should not contribute to smoke dispersion onto public roadways (**SPR TRAN-1**).

Impact TRAN-2

Description. The potential for smoke to affect visibility along roadways during implementation of treatment activities was examined in the PEIR (CalVTP Final PEIR volume II Section 3.15.3, pages 10-11). This impact is within the scope of the PEIR because the equipment and methods used for prescribed burning are consistent with those analyzed in the PEIR, PSA Addendum – Impact TRAN-2

Impact TRAN-3

Initial and maintenance treatments have the potential to increase vehicle miles traveled (VMT) above baseline conditions because the project area is in a remote location and would require vehicle trips to access treatment areas. The potential for net increase in VMT to occur was analyzed in the PEIR and was identified as potentially significant and unavoidable (CalVTP Final PEIR Volume II Section 3.15.3, pages 11-13). This project is expected to remain below the threshold of 110 trips per day, which is generally assumed to cause less-than-significant transportation impacts, as discussed in the PEIR and the Technical Advisory on Evaluation Transportation Impacts (OPR, 2018). The highest VMT would occur at the beginning and end of project activities and would likely occur on days where broadcast burning is likely to occur. Maximum daily VMT would consist of transportation of fire suppression equipment, hand crews, and heavy machinery to and from the project site, however, the number of trips would remain below 110. Furthermore, hiring local contractors will be encouraged where feasible to reduce the amount of VMT. Temporary increases in VMT are within the scope of the activities and impacts addressed in the PEIR because the number and duration of increased vehicle trips is consistent with those analyzed in the PEIR. Additionally, Mitigation Measure AQ-1 would encourage contractors to carpool or use public transportation when feasible as outline in the PEIR. This impact would remain potentially significant and unavoidable as determined in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, page 12-13). There will be unavoidable increases in miles traveled to prepare, implement and monitor the project, however they will be temporary and workers will be encouraged to carpool to each project (**MM AQ-1**).

New Transportation Impacts

The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the regulatory and environmental setting conditions presented in the PEIR (CalVTP Final PEIR Volume II 3.15.1 and 3.15.2).In summary, due to an intended decrease in the occurrence and severity of wildfires following achievement of the proposed treatment acreage targets under the CalVTP, implementation of the CalVTP could result in a net reduction in VMT in the long term because wildfire response travel could be reduced, resulting in a less-than-significant impact.

3.15: 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	Section 3.16.1 pp. 3.16-2 – 3.16-3; Impact UTIL-1 p. 3.16-9	**YES**	**None**	**NA**	**LTS**	**NO**	**YES**
Impact UTIL-2: Generate Solid Waste in Excess of State	PSU	Section 3.16.1 pp. 3.16-3 -3.16-	**NO**	**NA**	**NA**	**NA**	**NO**	**NA**

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?
Standards or Exceed Local Infrastructure Capacity		5; Impact UTIL-2 pp. 3.16-10 – 3.16-12						
Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	LTS	Section 3.16.2 pp. 3.16-6 – 3.16-7; Impact UTIL-2 p. 3.16-12	**NO**	**NA**	**NA**	**NA**	**NO**	**NA**

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New Public Services, Utilities and Service System 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

Discussion

Portions of the project area have electrical, telephone, and cable utilities infrastructure. There is no public gas, water, trash, or sewage utilities in the project area. There may be private waterlines and/or tanks in the project area and the project proponents have arranged identification and protection measures for these facilities with individual landowners. Landowners are not required to contribute water to this project.

Impact UTIL-1

Operators will be responsible for filling required water tenders and/or tanks; outside the project area. Initial and maintenance treatments for this project would include prescribed burning, which may require on-site water supply for fire suppression during burn activities as well as dust control during vegetation removal. If needed, water would be supplied from water trucks, water trailers, or fire engines. The potential increased demand for water was examined in the PEIR (CalVTP Final EIR Volume II Section 3.16.1, page 9).

Impact UTIL-2

There will be no off-site disposal of slash material for this project. Initial and maintenance treatments would generate biomass as a result of vegetation removal activities within the treatment area. Biomass generated by manual and mechanical treatments will be disposed of primarily through burning on site, chipping, masticating, incineration, or lop and scatter.

Impact UTIL-3

There will be no off-site disposal of slash material for this project.

New Impacts to Public Services, Utilities and Service Systems

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The site- specific characteristics of the proposed treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.16.1, “Environmental Setting,” and Section 3.16.2, “Regulatory Setting,” in Volume II of the Final PEIR). Therefore, no new impact related to public services, utilities, or service systems would occur.

3.16: 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	Section 3.17.1; Impact WIL-1 pp. 3.17-14 – 3.17-15	**YES**	**HAZ-2 HAZ-3 HAZ-4**	**NA**	**LTS**	**NO**	**YES**
Impact WIL-2: Expose People or Structures to Substantial Risks Related to Post-Fire Flooding or Landslides	LTS	Section 3.17.1; Impact WIL-2 pp. 3.17-15 – 3.17-16	**YES**	**GEO-3 GEO-4 GEO-5 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. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

Discussion

Reducing the risk of catastrophic wildfire is one of the main drivers for implementing this shaded fuelbreak project. The post-project condition in will provide increased access for fire suppression efforts by removing dead trees and ladder fuels that could block or limit the use of roads during a wildfire event.

Proposed vegetation treatment activities are mechanical, manual and prescribed burn treatments. Vegetation treatment involving motorized equipment could pose a risk of accidental ignition. Temporary increases in risk associated with uncontrolled fire from prescribed burns could also occur. As discussed in Section 3.17.1, "Environmental Setting," in Volume II of the Final PEIR, under "Prescribed Burn Planning and Implementation," implementing a prescribed burn requires extensive planning, including the preparation of prescription burn plans, smoke management plans, site-specific weather forecasting, public notifications, safety considerations, and ultimately favorable weather conditions so a burn can occur on a given day. Prior to implementing a broadcast burn, fire containment lines would be established by clearing vegetation surrounding the designated burn area to help prevent the accidental escape of fire. Water containers and safety equipment would be staged on site as necessary.

The potential increase in exposure to wildfire during implementation of treatments was examined in the PEIR. Increased wildfire risk associated with the use of heavy equipment in vegetated areas and with prescribed burns is within the scope of the PEIR because the types of equipment and treatment duration and the types of prescribed burn methods proposed as part of the project are consistent with those analyzed in the PEIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the wildfire risk is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. SPRs applicable to this impact are **AD-3, AQ-3, HAZ-2, HAZ-3,** and **HAZ-4**. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact WIL-1

The finished project will not in and of itself exacerbate wildfire risks; however, use of powered equipment, prescribed fire, and burn piles do carry a risk of spark and/or escape that could lead to the creation of pollutants that may affect neighboring properties. The Licensed Operators implementing this project will used mechanized hand tools that have federal and/or state-approved spark arrestors (**SPR HAZ-2**). Crews will be equipped with standard LTO firefighting equipment to control potential uncontrolled spread of a wildfire during operations (**SPR HAZ-3**). Crews will be instructed to limit smoking to areas of bare ground (likely the road prism) and to remove extinguished cigarette buts (**SPR HAZ-4**).

Impact WIL-2

See also, Discussion, above and PD-3.6: Geology, Soils, Paleontology, and Mineral Resources.

Project design, including burn plans (**SPR AQ-3**) and slash treatment objectives for this project, will limit large areas of bare mineral soil on slopes that may exacerbate erosion and lead to land sliding events. Grazing, broadcast and pile burning will take place on slopes under 50%. To stabilize potential areas of disturbed soil, mastication and chipping (where feasible) will create a layer of erosion resistant material that covers at least 50-75% of the surface depending on the local erosion hazard rating (See also PD-3.6: Geology, above). In steeper areas blowing chips off the roadside and loping and scatter treatments should reduce potential erosion. In areas that lead directly to watercourses where native mulch material is not available, clean straw spread to 4" deep will be used for stabilization (**SPR GEO-3**). Erosion monitoring will be performed, during operations, prior to a forecast significant rain event (1/2" or greater), and of after the first large storm. Clean straw spread to 4" deep will be used to mitigate substantial sediment discharge discovered during monitoring (**SPR GEO-4**).

See also PD-3.6: Geology and PD-3.10: Hydrology above for general heavy equipment limitations. Where heavy equipment is used on existing trails, water breaks will be upgraded or installed to drain stormwater where feasible. (**SPR GEO-5**). In the WUI there will be no use of heavy equipment on steep slopes and known unstable areas will be identified for avoidance with a well flagged buffer determined an RPF or licensed geologist (**SPR GEO-8**).

New Impacts to Wildfire

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.17.1, "Environmental Setting," and Section 3.17.2, "Regulatory Setting," in Volume II of the Final PEIR). No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to wildfire would occur that is not covered in the PEIR.

Within the boundary of the project area, the existing environmental and regulatory conditions pertinent to wildfire that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to wildfire would occur that is not covered in the PEIR.

4: ATTACHMENTS

Attachment A – Standard Project Requirements and Mitigation Measures Checklist

Introduction

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) 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 because the Project-Specific Analysis/Addendum (PSA/Addendum) to the California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (PEIR) identifies potential significant adverse impacts and all feasible mitigation measures have been adopted. Standard project requirements (SPRs), which are part of the project description, have been incorporated to avoid or minimize adverse effects. Where potentially significant impacts remain after application of SPRs, mitigation measures have been identified to further reduce and/or compensate for those impacts. While only mitigation measures are required to be covered in an MMRP, both SPRs and mitigation are included in this MMRP to assist in implementation of all environmental protection features of later activities consistent with the CalVTP PEIR.

Purpose of Mitigation Monitoring and Reporting Program

This MMRP has been prepared to facilitate the implementation of SPRs and mitigation measures. The attached table presents the text of each SPR and mitigation measure from the CalVTP PEIR that is applicable to the project, the timing of its planned implementation, the implementing entity, and the entity with monitoring responsibility. The numbering of SPRs and mitigation measures follows the numbering used in the PEIR. SPRs and mitigation measures that are referenced more than once in the PSA/Addendum are not duplicated in the MMRP. Instructions for project-specific implementation of certain SPRs and Mitigation Measures has been added to tailor the specific impact avoidance and minimization actions relevant to the proposed treatments, agency standard practices, and the conditions and resources present within each treatment site. In addition, non-substantive clarifying edits to mitigation measures in the PEIR are shown. In all cases, the additional project-specific implementation instruction and clarifying edits to mitigation measures maintain the SPRs and mitigation measures as equivalent or more effective than those presented in the PEIR.

Roles and Responsibilities

This PSA was developed for the Gold Ridge Fire Protection District (GRFD) and the Coast Ridge Community Forest (CRCF) in collaboration with Matt Greene Forestry & Biological Consulting. The GRFD is the project proponent of the PSA and the lead agency of the PSA/Addendum under CEQA and is responsible for approving and submitting the PSA for inclusion under the CalVTP PEIR, the overall administration of this project specific MMRP, and for ensuring that implementation of the mitigation measures and SPRs occurs in accordance with this MMRP.

Reporting:

The Coast Ridge Community Forest (**CRCF**), with support from Matt Greene Forestry & Biological Consulting (**MGF&BC**), shall document and describe the compliance of project treatment work with the required SPRs and Mitigation Measures either by adapting the project-specific MMRP table below or preparing a separate post-project implementation report pursuant to the requirements of **SPR AD-7**.

Standard Project Requirements

Administrative Standard Project Requirements

SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE will meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE will also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF**	**CRCF**

SPR AD-4 Public Notifications for Prescribed Burning: At least 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**At least three days prior to broadcast burn activities**	**CRCF**	**CRCF**

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 treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**At least three days prior to broadcast burn activities**	**CRCF**	**CRCF**

SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism.
This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to, during, and following treatment**	**CRCF**	**CRCF**

SPR AD-8 Request Access for Post-Treatment Assessment. For CAL FIRE projects, during contract development, CAL FIRE will include access to the treated area over a prescribed period (usually up to three years) to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance, as a contract term for consideration by the landowner. For public landowners, access to the treated area over a prescribed period will be a requirement of the executed contract. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y/N	**Post-treatment, depending on funding source.**	**CRCF**	**CRCF**

Aesthetic and Visual Resource Standard Project Requirements

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to broadcast burn treatment**	**CRCF**	**CRCF**

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, 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to broadcast burn treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During treatment**	**CRCF**	**CRCF**

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 prescribed burning treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**During broadcast burn treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Records Search complete until 7/26/2028.**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Local Government Tribal Consultation List and Sacred Lands File & Native American Contacts List for the project area from the Native American Heritage Commission (NAHC) received 8/2024. Complete at least 30 days prior to operations. Communication with the pertinent tribe began in 2023.**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Complete until 7/26/2028 when a new Records Search is required.**	**MGF&BC**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment. Complete for Unit HR6 and Unit CC3a and CC3b**	**MGF&BC Pacific Legacy, INC.**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment (if sites are found and cannot be avoided). Complete for Unit HR6 and Unit CC3a and CC3b**	**MGF&BC and Pacific Legacy, INC.**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: N	**Prior to initial treatment (if sites are found and cannot be avoided). Complete for Unit HR6 and Unit CC3a and CC3b**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: N	**Complete**	**MGF&BC and Pacific Legacy, INC.**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

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 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).

   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)~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024).

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

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 applies to all treatment activities and treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

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; 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF**	**CRCF**

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.
- 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF**	**CRCF**

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~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024) 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~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024). 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~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024) 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to treatment**	**MGF&BC**	**CRCF**

SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). If temporary fencing is required for prescribed herbivory treatment, a wildlife-friendly fencing design will be used. The project proponent will require a qualified RPF or biologist to review and approve the design before installation to minimize the risk of wildlife entanglement. The fencing design will meet the following standards:

- Minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale or snag a leaping animal; and, if feasible, keeping electric netting-type fencing electrified at all times or laid down while not in use.
- Charge temporary electric fencing with intermittent pulse energizers; continuous output fence chargers will not be permitted.
- Allow wildlife to jump over easily without injury by installing fencing that can flex as animals pass over it and installing the top wire low enough (no more than approximately 40 inches high on flat ground) to allow adult ungulates to jump over it. The determination of appropriate fence height will consider slope, as steep slopes are more difficult for wildlife to pass.
- Be highly visible to birds and mammals by using high-visibility tape or wire, flagging, or other markers.

This SPR applies only to prescribed herbivory and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to prescribed herbivory treatment**	**CRCF**	**CRCF**

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 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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During mechanical, prescribed herbivory, and herbicide treatments**	**MGF&BC and/or CRCF**	**CRCF**

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 exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During mechanical treatment**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During and after mechanical, prescribed herbivory, and broadcast burn treatment**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During and after mechanical, prescribed herbivory, and broadcast burn treatment**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During mechanical, manual, and broadcast burn treatment**	**MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During mechanical, manual, and broadcast burn treatment**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**MGF&BC**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during mechanical treatment and WUI fuel reduction treatment**	**MGF&BC or a Licensed Geologist**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF and/or MGF&BC**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**During manual treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF and/or MGF&BC**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during herbicide treatment**	**CRCF and/or MGF&BC**	**CRCF**

SPR HAZ-6 Comply with Herbicide Application Regulations: The project proponent will coordinate pesticide use with the applicable County Agricultural Commissioner(s), and all required licenses and permits will be obtained prior to herbicide application. The project proponent will prepare all herbicide applications to do the following:

- Be implemented consistent with recommendations prepared annually by a licensed PCA.
- Comply with all appropriate laws and regulations pertaining to the use of pesticides and safety standards for employees and the public, as governed by the EPA, DPR, and applicable local jurisdictions.
- Adhere to label directions for application rates and methods, storage, transportation, mixing, container disposal, and weather limitations to application such as wind speed, humidity, temperature, and precipitation.
- Be applied by an applicator appropriately licensed by the State.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during herbicide treatment**	**CRCF**	**CRCF**

SPR HAZ-7 Triple Rinse Herbicide Containers: The project proponent will triple rinse all herbicide and adjuvant containers with clean water at an approved site, and dispose of rinsate by placing it in the batch tank for application per 3 CCR Section 6684. The project proponent will puncture used containers on the top and bottom to render them unusable, unless said containers are part of a manufacturer's container recycling program, in which case the manufacturer's instructions will be followed. Disposal of non-recyclable containers will be at legal dumpsites. Equipment will not be cleaned, and personnel will not be washed in a manner that would allow contaminated water to directly enter any body of water within the treatment area or adjacent watersheds. Disposal of all herbicides will follow label requirements and waste disposal regulations.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during herbicide treatment**	**CRCF**	**CRCF**

SPR HAZ-8 Minimize Herbicide Drift to Public Areas: The project proponent will employ the following herbicide application parameters during herbicide application to minimize drift into public areas:

- application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative);
- spray nozzles will be configured to produce the largest appropriate droplet size to minimize drift;
- low nozzle pressures (30-70 pounds per square inch) will be utilized to minimize drift; and
- spray nozzles will be kept within 24 inches of vegetation during spraying.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during herbicide treatment**	**CRCF**	**CRCF**

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. 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during treatment**	**CRCF**	**CRCF**

SPR HYD-3 Water Quality Protections for Prescribed Herbivory: The project proponent will include the following water quality protections for all prescribed herbivory treatments:

- Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas will be identified in the treatment prescription and excluded from prescribed herbivory project areas using temporary fencing or active herding. A buffer of approximately 50 feet will be maintained between sensitive and actively grazed areas.
- Water will be provided for grazing animals in the form of an on-site stock pond or a portable water source located outside of environmentally sensitive areas.
- Treatment prescriptions will be designed to protect soil stability. Grazing animals will be herded out of an area if accelerated soil erosion is observed.

This SPR applies to prescribed herbivory treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during prescribed herbivory treatment**	**CRCF**	**CRCF**

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.

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 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.

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

Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during operations**	**MGF&BC and/or CRCF**	**CRCF**

SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: The project proponent will implement the following measures when applying herbicides:

- Locate herbicide mixing sites in areas devoid of vegetation and where there is no potential of a spill reaching non-target vegetation or a waterway.
- Use only herbicides labeled for use in aquatic environments when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides will be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry.
- No terrestrial or aquatic herbicides will be applied within WLPZs of Class I and II watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ provided that the project proponent notifies the applicable regional water quality control board no fewer than 15 days prior to herbicide application. The feasibility of avoiding herbicide application within WLPZ of Class I and II watercourses will be determined by the project proponent and may be based on whether doing so will preclude achieving CalVTP program objectives, including, but not limited to, protection of vulnerable communities. The reasons for infeasibility will be documented in the PSA.
- No herbicides will be applied within a 50-foot buffer of ESA or CESA listed plant species or within 50 feet of dry vernal pools.
- For spray applications in and adjacent to habitats suitable for special-status species, use herbicides containing dye (registered for aquatic use by DPR, if warranted) to prevent overspray.
- Application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative);
- No herbicide will be applied during precipitation events or if precipitation is forecast 24 hours before or after project activities.

This SPR applies to herbicide treatment activities and all treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during herbicide operations**	**MGF&BC and/or CRCF**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during operations**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during operations**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	Prior to and during operations	MGF&BC and/or CRCF	CRCF

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	During mechanical treatment operations	MGF&BC and/or CRCF	CRCF

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), to the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	Prior to and during operations	MGF&BC and/or CRCF	CRCF

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/ Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	During mechanical treatment operations	MGF&BC and/or CRCF	CRCF

Mitigation Measures

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	Prior to and during potentially ground disturbing activities	MGF&BC and qualified archaeologist	CRCF

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 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 (nor use of associated 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially ground disturbing activities**	**MGF&BC**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially ground disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Possibly, Not Likely **Treatment Maintenance: Possibly, Not likely**	**Prior to and during potentially ground disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024) (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following.

Avoid Mortality, Injury, or Disturbance of Individuals

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-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.

Maintain Habitat Function

- 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024) (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following.

Avoid Mortality, Injury, or Disturbance of Individuals

- 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 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.

Maintain Habitat Function

- 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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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 (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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Possibly, not likely **Treatment Maintenance: Possibly, not likely**	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities)

If special-status bumble bees are identified as occurring during review and surveys under SPR BIO-1 and confirmed during ~~protocol-level surveys per SPR BIO-10~~ the survey format accepted during Consultation with CDFW and USFWS (July 2024), or if suitable habitat for special-status bumble bees is identified during review and surveys under SPR BIO-1 (e.g., wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species), then the project proponent will implement the following measures, as feasible:

- Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season.
- Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.
- Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area).
- Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September).

CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, 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 bumble bees (in the event the Candidate listing is confirmed) or degradation of occupied (or assumed to be occupied) habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

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 bumble bees would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status bumble bees or degradation of occupied (or assumed to be 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 bumble bee species would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or

disturbed during treatment activities. For a treatment to be considered beneficial to special-status bumble bee 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), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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:

- 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 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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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 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 (nor use of associated accelerants) will occur within the wetland buffer

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during potentially habitat disturbing activities**	**MGF&BC and/or CRCF**	**CRCF**

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.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: N Treatment Maintenance: Y	**Prior to and during prescribed burn activities**	**MGF&BC and/or CRCF**	**CRCF**

Hazardous Materials, Public Health and Safety

Mitigation Measure HAZ-3: Identify and Avoid Known Hazardous Waste Sites

Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials. If it is determined that hazardous materials sites could be located within the boundary of a treatment site, the project proponent will conduct a DTSC EnviroStor web search (https://www.envirostor.dtsc.ca.gov/public/) and consult DTSC's Cortese List to identify any known contamination sites within the project site. If a proposed mechanical treatment or prescribed burn is located on a site included on the DTSC Cortese List as containing potential soil contamination that has not been cleaned up and deemed closed by DTSC, the area will be marked and no prescribed burning or soil disturbing treatment activities will occur within 100 feet of the site boundaries. If it is determined through coordination with landowners or after review of the Cortese List that no potential or known contamination is located on a project site, the project may proceed as planned.

Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Initial Treatment: Y Treatment Maintenance: Y	**Prior to and during mechanical or prescribed burning treatment activities A 2024 EnviroStor search yielded no such facilities within several miles of the project.**	**MGF&BC**	**CRCF**

Attachment B – Biological Resources

GENERAL HABITAT QUALITY DESCRIPTION

This project is in a mostly forested environment with some grassy openings beginning to be colonized by Douglas-fir and other pioneer species (native and non-native). The forests in this area have been repeatedly logged and/or cleared for ranching and farming up to the present day. The Sonoma County zoning on the parcels comprising the project allow for farming, ranching, timber harvests, and home building. The project lies within 100 feet of ingress and egress roads used daily by dozens of residents and multiple delivery drivers. The roads are improved dirt that create dust and noise. The disturbance level from existing traffic, while periodic, occurs daily and year-round. These roads have seen increasing use since the 1980s.

Table 4B-1: CWHR Mapped Habitat In the Treatment Areas

CWHR Mapped Habitat	Cal VTP Treatable Acres	Adjacent Acres (in project)	Total
Annual Grasslands	7	6	**13**
Coastal Oak Woodland	9	<1	**9**
Coastal Scrub	2	<1	**2**
Douglas-fir	29	9	**38**
Montaine Hardwood	12	3	**15**
Montaine Hardwood-Conifer	36	15	**51**
Montaine Riparian	<1	<1	**1**
Redwood	29	7	**36**
Total	***125***	***40***	***165***

Sensitive Natural Communities

Table 4B-2: Mapped Sensitive Natural Communities with Potential to Occur in Treatment Areas

Sensitive Natural Community/ SVM Unit	CNPS Name	CWHR Type	Rarity Ranks	Known Occurrence	Protection and/or Restoration Potential
Acer macrophyllum Alliance	Bigleaf maple forest and woodland	Montane hardwood-conifer	G4 S3	No pure stands exists; however, a large number are located in a riparian area in Unit MR 7d.	Likely individual trees near a seasonal water resource protected with WLPZs buffers.
Nassella spp. – *Melica spp*./ California Annual and Perennial Grassland	Needle grass - Melic grass grassland	Perennial grassland	G3 S3	Existing "grasslands" are mainly the result of forest conversion to pasture. Possibly in isolated patches in openings and likely mixed with non-native grasses; especially Bohan-Dillon Road. Presence/absence of sensitive grass species requires plant specific field review.	Protected with heavy equipment, herbicide, and pile burning restrictions. May be restored with a Broadcast Burning treatment.

Sensitive Natural Community/ SVM Unit	CNPS Name	CWHR Type	Rarity Ranks	Known Occurrence	Protection and/or Restoration Potential
Quercus garryana	Oregon white oak woodland and forest	Montane hardwood Montane hardwood-conifer	G4 S3	Mostly individual trees in mixed-hardwood/conifer forests. Pure stands have been invaded with Douglas-fir due to lack of fire.	Retain all live *Quercus* Spp. and remove encroaching fir and brush where possible. May also be restored with a Broadcast Burning treatment.
Quercus lobata Alliance	Valley oak woodland and forest	Not mapped in or adjacent to the project.	G3 S3	Not known to be in or adjacent to the project area. Likely miss-typed white oak.	See *Quercus garryana*, above.
Sequoia sempervirens Alliance	Redwood forest and woodland	Redwood	G3 S3	Second and third growth stands with Douglas-fir and hardwoods throughout the project area. No late-seral stage stands in or adjacent to the project.	This Community may be enhanced by reducing the ratio of Douglas-fir, hardwoods, and brush.
Umbellularia californica Alliance	California bay forest and woodland	Montane hardwood	G4 S3	No pure stands in or adjacent to the project area. Likely individual or small groups of trees near a seasonal water resource.	Protected with WLPZs buffers.
Fraxinus latifolia/ Vancouverian Riparian *Salix lucida ssp. Lasiandra/* Deciduous Forest Group	Oregon ash groves and/or Shining willow groves	Montane riparian	G4 S3.2	No pure stands in or adjacent to the project area. Likely individual trees/shrubs near a seasonal water resource.	Protected with WLPZs buffers.

Special-Status Plant Species With Habitat In (and adjacent to) the Project Area

The following table lists the species on the CNDDB 9-Quad search (May 2024) of the following USGS Quads: Arched Roack, Cazadero, and Fort Ross. Potential habitat in the project area includes the following: north coast coniferous forest, broadleafed upland forest, cismontane woodland, valley and foothill grassland, meadows and seeps, and vernal pools. See table below.

Table 4B-3: Listed and Special-Status Plants With Potential Habitat on the CNDDB 9-Quad Search-May 2024

Scientific Name	Common Name	Federal Status	State Status	CA Rare Plant Rank	Relevant Habitat In and Adjacent to the Project	Typical Ecological Site	Potential for Occurrence	Avoidance/ Protection Measures
Eastwoodiella californica	**swamp harebell**	**None**	**None**	**1B.2**	Meadows and seeps, north coast coniferous forest.	Bogs and marshes in a variety of habitats; uncommon where it occurs.	**Yes**	WLPZ and spring protection. Dormant or 25' no mechanical operations.
Amorpha californica var. napensis	**Napa false indigo**	**None**	**None**	**1B.2**	Broadleafed upland forest, cismontane woodland.	Openings in forest or woodland or in chaparral.	**Yes**	25' no mechanical operations.
Piperia candida	**white-flowered rein orchid**	**None**	**None**	**1B.2**	North Coast coniferous forest, broadleafed upland forest.	Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg.	**Yes**	Dormant or 25' no mechanical operations.
Limnanthes vinculans	**Sebastopol meadowfoam**	**Endangered**	**Endangered**	**1B.1**	Meadows and seeps, vernal pools, valley and foothill grassland.	Swales, wet meadows and marshy areas in valley oak savanna; on poorly drained soils of clays and sandy loam.	**Possibly**	WLPZ and spring protection. Dormant or 25' buffer.
Pleuropogon hooverianus	**North Coast semaphore grass**	**None**	**Threatened**	**1B.1**	Broadleafed upland forest, meadows and seeps, north coast coniferous forest.	Wet grassy, usually shady areas, sometimes freshwater marsh; associated with forest environments.	**Possibly**	WLPZ and spring protection. Dormant or 25' buffer.
Delphinium bakeri	**Bakers larkspur**	**Endangered**	**Endangered**	**1B.1**	Broadleafed upland forest, valley and foothill grassland.	Only site occurs on NW-facing slope, on decomposed shale.	**Possibly Unit MR 7d**	Dormant or 25' no mechanical operations.
Hemizonia congesta ssp. congesta	**congested-headed hayfield tarplant**	**None**	**None**	**1B.2**	Valley and foothill grassland.	Grassy valleys and hills, often in fallow fields; sometimes along roadsides.	**Possibly**	Dormant or 25' no mechanical operations.

Scientific Name	Common Name	Federal Status	State Status	CA Rare Plant Rank	Relevant Habitat In and Adjacent to the Project	Typical Ecological Site	Potential for Occurrence	Avoidance/ Protection Measures
Dirca occidentalis	**western leatherwood**	**None**	**None**	**1B.2**	Broadleafed upland forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland.	On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. North/northeast slopes.	**Possibly**	WLPZ and spring protection
Fissidens pauperculus	**minute pocket moss**	**None**	**None**	**1B.2**	North coast coniferous forest.	Moss growing on damp soil along the coast. In dry streambeds and on the banks of streams.	**Possibly**	WLPZ and spring protection
Carex comosa	**bristly sedge**	**None**	**None**	**2B.1**	Valley and foothill grassland.	Lake margins, wet places.	**Not likely**	WLPZ and spring protection
Ramalina thrausta	**angels hair lichen**	**None**	**None**	**2B.1**	North coast coniferous forest.	On dead twigs and other lichens.	**Possibly**	Protect trees with lichen growth on 3 sides.
Lathyrus palustris	**marsh pea**	**None**	**None**	**2B.2**	North coast coniferous forest.	Moist coastal areas.	**Possibly Unit MR 7d**	WLPZ and spring protection
Kopsiopsis hookeri	**small groundcone**	**None**	**None**	**2B.3**	North coast coniferous forest.	Open woods, shrubby places, generally with Gaultheria shallon (salal).	**Possibly**	Dormant or 25' no mechanical operations
Trifolium amoenum	**two-fork clover**	**Endangered**	**None**	**1B.1**	Valley and foothill grassland.	Moist, heavy soils, disturbed areas. Sometimes on serpentine soil, open sunny sites, swales. Most recently identified on roadside and eroding cliff face.	**Possibly after initial treatment**	WLPZ and spring protection
Trifolium buckwestiorum	**Santa Cruz clover**	**None**	**None**	**1B.1**	Broadleafed upland forest, cismontane woodland.	Moist grassland. Gravelly margins. Grassy or disturbed areas.	**Possibly after initial treatment**	Dormant or 25' no mechanical operations

Special-Status Animal Species With Habitat In (and adjacent to) the Project Area
USFWS & CDFG Consultation

The following (box in) information was provided to the CDFW and/or USFWS in a Consultation Request Memo from the project proponents. Some information and maps have been redacted (as required by State law) to protect sensitive species. The CDFW and USFWS Consultation Memos differed slightly due to different protection requirements and language. Notations in **RED BOLD TEXT** are provided for clarification (or redactions). The project's general description and location maps (similar to those in Section 2) were also provided to the agencies, but removed for brevity.

Provided to CDFW:

Pursuant to **Mitigation Measure BIO-2a** of the CalVTP, the Project Proponents are required to consult with CDFW for species that may occur in the project area and are **listed as threatened, endangered, or candidates for listing under the California Endangered Species Act or fully protected under California Fish and Game Code**. For this project, those species are:

Common Name	Scientific Name	Listing Status
bald eagle	*Haliaeetus leucocephalus*	state endangered
golden eagle	*Aquila chrysaetos*	fully protected
Northern spotted owl	*Strix occidentalis caurina*	federally threatened, state threatened
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	federally threatened, state endangered
white-tailed kite	*Elanus leucurus*	fully protected
Coho salmon California coast ESU	*Oncorhynchus kisutch* pop. 4	federally endangered, state endangered
northern California ringtail	*Bassariscus astutus raptor*	fully protected
western bumble bee	*Bombus occidentalis*	state candidate

The project area is not in the range of or does not have habitat for the following species that are listed on the CNDDB 9-quad search (12 quads total) in June 2024: California tiger salamander - Sonoma County DPS (*Ambystoma californiense* pop. 3), marbled murrelet (*Brachyramphus marmoratus*), tricolored blackbird (*Agelaius tricolor*), bank swallow (*Riparia riparia*), California freshwater shrimp (*Syncaris pacifica*), longfin smelt (*Spirinchus thaleichthys*), and southern sea otter (*Enhydra lutris nereis*).

According to the CNDDB viewer in June 2024, one of the species listed above has been observed within 1 mile of the project area: Northern spotted owl (*Strix occidentalis caurina*).

Provided to USFWS:

Pursuant to **Mitigation Measure BIO-2a** of the CalVTP, the Project Proponents are required to consult with USFWS for species that may occur in the project area and are **listed as threatened, endangered, or candidates for listing under the federal Endangered Species Act**. According to the USFWS IPaC, Official Species List for Project code: 2024-0089219 (dated 05/13/2024), listed and/or candidate species with habitat in the project area are the following:

Common Name	Scientific Name	Listing Status
Northern spotted owl	*Strix occidentalis caurina*	federally threatened, state threatened
California red-legged frog	*Rana draytonii*	federally threatened
Coho salmon California coast ESU	*Oncorhynchus kisutch* pop. 4	federally endangered, state endangered
Chinook salmon - California Coastal ESU	*Oncorhynchus tshawytscha* pop. 17	federally threatened

steelhead - central California coast DPS	*Oncorhynchus mykiss irideus* pop. 8	federally threatened
steelhead - northern California DPS winter-run	*Oncorhynchus mykiss irideus* pop. 49	federally threatened
western pond turtle	*Emys marmorata*	Federally proposed threatened

According to the IPaC Official Species List, the project is also in the range of the following listed species that do not have habitat in the project area: Marbled Murrelet (*Brachyramphus marmoratus*), Western Snowy Plover (*Charadrius nivosus nivosus*), Green Sea Turtle (*Chelonia mydas*), Tidewater Goby (*Eucyclogobius newberryi*), Behren's Silverspot Butterfly (*Speyeria zerene behrensii*), and Monarch Butterfly (*Danaus Plexippus*). There are no Critical Habitat areas within 1 mile of the project area.

According to the CNDDB in June 2024, the following two species (listed as threatened, endangered, or candidates for listing under the federal Endangered Species Act) have been observed within 1 mile of the project area: Northern spotted owl (*Strix occidentalis caurina*) and steelhead - northern California DPS winter-run (*Oncorhynchus mykiss irideus* pop. 49).

Provided to Both Agencies:

General avoidance mitigation measures:

For all nesting birds: Focused surveys will occur up to three weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, typically one day for most proposed treatment units. The survey will be conducted during the day, as most birds are diurnal. The survey will include walking throughout the proposed treatment unit and visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., whitewash, feathers or pellets at the base of trees; birds delivering food). If the nest of a listed species is observed within or adjacent to the treatment unit, the RPF will determine the appropriate buffer and/or, consider alternative operation timelines, and/or consult with CDFW (more on this in Mitigation Measure BIO-2a, below.)

Fallers/operators will always survey a tree for sweep, loose limbs, and other hazards. At this time, the faller will also look for nests and cavities. If a faller/operator discovers a cavity or nest of a bald eagle, golden eagle or other fully protected species is suspected, the operator will contact the supervising RPF and/or the Project Proponents. A qualified biologist may be required to evaluate the site. Operations within 300' will be halted until the biologist can make a recommendation.

For all amphibians: There will be no mechanical, burning, or herbicide treatments during rainy weather and no operations for at least 72 hours following any rain of more than 1/2".

For nocturnal animals: For the entire project area: there will be no nighttime operations.

Mitigation Measure BIO-2a, requires GRFD and CRCF to consult with CDFW regarding the Project Proponent's determination that habitat function for these species would be maintained after implementation of the project. This section is intended to provide the CDFW with 1) the necessary analysis and mitigation measures that the Project Proponents have developed for the protection of the species listed above and 2) to help facilitate a consultation meeting between the Project Proponents and CDFW staff if one is requested by CDFW, pursuant to **Mitigation Measure BIO-2a** of the CalVTP.

The following is an excerpt from Mitigation Measure BIO-2a regarding **impact avoidance**, which is provided for context.

The project proponent will implement one of the following two 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-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.*

The following is an excerpt from Mitigation Measure BIO-2a regarding **habitat function,** which is provided for context:

The project proponent will design treatment activities to maintain the habitat function, by implementing the following:

1. *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.*
2. *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.*
3. *A qualified RPF or biologist of the lead agency 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 that 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 the lead agency determines after consultation that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c (Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable).*

This section has been merged (CDFW & USFW) for clarity:

BALD EAGLES, GOLDEN EAGLES, OTHER RAPTORS AND MIGRATORY BIRDS

Bald eagles (*Haliaeetus leucocephalus*) were delisted federally but are fully protected species in California. The majority of bald eagles in California breed near reservoirs (Detrich 1986). Although their preference to nest in the project area is unlikely, they may be seen foraging adjacent to it; especially within 1 mile of the ocean.

There are no CNDDB occurrences for bald eagles within the 9-quad search surrounding the project area. The closest CNDDB observation is about 20 miles north (Anderson Valley) and 40 miles east (Lake Hennessey). The closest observations known to this author is Willow Creek and the Gualala River Estuary.

Habitat function for bald eagles will be maintained and improved throughout the duration of the project. Treatment activities would focus on removing ladder fuels less than 12 inches DBH. Trees greater than 16 inches DBH are the most likely features to be used by bald eagles as a high hunting perch or as a nest site. Thinning smaller trees has also been shown to promote residual tree growth (Zald et al, 2022), and encouraging the growth of larger trees across the project area will increase the number of viable nesting trees.

Golden eagles (*Aquila chrysaetos*) are a fully protected species in California. They occupy a variety of habitats including forests, canyons, shrub lands, grasslands, and oak woodlands. Golden eagles nest in open and semi-open habitat, but also may nest at lower densities in coniferous habitat when open space is available, (e. g. fire breaks, clear-cuts, burned areas, pasture-land, etc.). Golden eagles avoid nesting near urban habitat and do not generally nest in densely forested habitat. Nests are constructed on platforms on steep cliffs or in large trees. Although their preference to nest in the project area is unlikely, they may be seen foraging near the project area. Golden eagles also require open terrain for hunting including grasslands and early successional stages of forest and shrub habitats. Dense forest stands reduce prey visibility and opportunities for low level hunting flights, the eagle's dominant foraging mode (Hunt, 1995). Golden eagles also frequent large trees on edges of open areas for cover and as a perch where they may occasionally search from and fly directly to prey (Carnie, 1954).

There are no CNDDB occurrences for golden eagles within the 9-quad search surrounding the project area, The closest CNDDB observation is about 40 miles to the northwest on the border of Lake and Napa counties.

Habitat function for golden eagles will be improved because thinning in the project area will reduce conifer encroachment and promote an open habitat that allows for hunting. Additionally, treatment activities will focus on removing trees less than 12 inches DBH. Trees greater than 16 inches DBH are most likely to be used by golden eagles for high hunting perches. Thinning smaller trees has also been shown to promote residual tree growth (Zald et al, 2022), and encouraging the growth of larger trees across the project area will increase the number of viable nesting trees.

The Project Proponents are required to consider migrating birds by the FESA. The following provisions are designed to protect all raptors and migrating birds while active nesting may occur:

- The status of potential nesting sites will be evaluated during a focused survey (see For all nesting birds, above).
- If the nest of a bald eagle, golden eagle or other fully protected species is suspected, the Project Proponents will notify CDFW and implement species appropriate avoidance protection measures.

No additional surveys or protection measures are warranted at this time. Habitat for all raptors and migrating birds will be protected by CalVTP SPR BIO-1: Review And Survey For Project-Specific Biological Resources and as described above. Implementation of SPR HYD-4 will protect watercourses and ensure that the bald eagle's prey base is protected.

NORTHERN SPOTTED OWL

Northern Spotted Owls (NSO) have been found in a wide variety of forest types, and generally use older structurally complex forest types for nesting, roosting and foraging activities. Throughout their range and across all seasons, spotted owls consistently concentrated their foraging and roosting in old-growth or mixed-age stands of mature and old-growth trees. Exceptions were found, but even they tend to support the usual observations that spotted owls nest in stands with structures characteristic of older forests. Structural components that distinguish superior spotted owl habitat include: a multilayered, multispecies canopy dominated by large (>30 inches DBH) conifer overstory trees, and an understory of shade-tolerant conifers or hardwoods; a moderate to high (60-80 percent) canopy closure; substantial decadence in the form of large, live

coniferous trees with deformities such as cavities, broken tops, and dwarf mistletoe infections; numerous large snags; ground cover characterized by large accumulations of logs and other woody debris; and a canopy that is open enough to allow owls to fly within and beneath it.

Foraging habitat may contain the typical older forest components of nesting and roosting habitat, but may also include younger forests and hardwood stands, as well as more open areas. Overall, foraging habitat consists of areas where prey species occur and are available for capture by owls. Northern spotted owls often forage near transitions between early- and late-seral stage forest stands in northern California, likely where prey species are more abundant or more readily available.

There are 79 NSO ACs on the CNDDB within the 9-quad search surrounding the project area. Observations were made from 1980 -2023. Known owls within 1 mile to the project area are SON0047 and SON0102 as well and an unnumbered NSO which was first recorded in 2022 in **redacted**. Other NSO in the .7 Mile Assessment Area Report are **redacted** (see SPR BIO-10: Survey for Special-Status Wildlife and Nursey Sites, below.)

See also, Revision of USFWS protocol-level survey protocols for northern spotted owls (*Strix occidentalis caurina;* threatened), below for survey plans for this species.

Measures to Avoid and Reduce Impacts
As described for SPR BIO-10 below, GRFD and **CRCF** are proposing a modified survey consisting of a single Daytime Stand Search (DTS) conducted during the breeding season (February 1 to July 31). If a NSO occupied site is detected during the DTS survey, a 0.25-mile seasonal restriction on treatments (except for road use after July 9th) will apply to every NSO activity center during the breeding season, unless it is determined via a site monitoring visit "activity center search" (Revised 2011 NSO Survey Protocol), that NSO are not nesting, or nesting failure has occurred. If it cannot be determined whether NSO are nesting, or nesting failure cannot be determined, the 0.25-mile seasonal restriction will stay in effect for treatments until after July 31st. For additional protection measures, refer to USFWS NSO-Take Avoidance Analysis 'Attachment A' 11/1/2019. Treatments will not reduce suitable habitat or degrade it from a higher habitat classification to a lower one (e.g., nest/roost habitat will not be reduced below basal area ≥100² feet per acre of trees ≥11" DBH, ≥60% canopy closure of trees that are ≥11" DBH). Treatment activities will focus on removing/thinning live trees (for spacing) up to 10 inches DBH. Potential spotted owl nest trees e.g., large trees with blown out tops or cavities, will not be targeted by treatments. If present, these trees will be identified and protected pursuant to *Mitigation Measure BIO-2a (Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species),* which requires that these habitat features are marked and that treatments are designed to minimize or avoid their loss or degradation during treatments.

Maintenance of Habitat Function
Habitat function for northern spotted owl will be maintained through the retention of forest structural attributes (e.g., high canopy cover, understory structure, high average tree DBH, downed woody debris) required for spotted owl foraging, nesting, and roosting activities. The proposed treatments – reducing ladder fuels and applying low-intensity prescribed fire- are designed to result in conditions that northern spotted owl evolved with before fire suppression and logging – dynamic ecological processes, complex, mature forests, and ecotone foraging habitats. Large scale, high severity fire is a major threat to northern spotted owls (Wan et al. 2018). Low-intensity prescribed fire treatments are intended to restore natural fire regimes and reduce the probability of uncharacteristically severe fire effects.

WESTERN YELLOW-BILLED CUCKOO

The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is federally listed threatened and state listed endangered. They are associated with forest and shrub habitat that is close to a water source, including riparian and other areas that have dense vegetation such as willows and cottonwoods. There is not likely habitat for this species in the project area.

There are no CNDDB occurrences for western yellow-billed cuckoo within the 9-quad search surrounding the project area. This species has been identified in Sonoma County (Sebastopol and Santa Rosa) and along the Russian River in recent years. This kind of habitat is not present within the project area.

There are no protocol surveys for this species. No surveys or additional protection measures are warranted. Habitat for this species will be protected by SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones and SPR-BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. See also Listed Salmonids, below.

WHITE-TAILED KITE

White-tailed kites (*Elanus leucurus*) are a fully protected species in California. This non-migrating bird tends to occupy dense deciduous forests in valley lowlands and utilize agricultural areas for foraging. Although their preference to nest in the project area is unlikely, they could potentially forage in agricultural plots near the project area, however annual crop-style agriculture is not extensive in this part of Sonoma County.

There are no CNDDB occurrences for white-tailed kite within the 9-quad search surrounding the project area. The closest observation is 11 miles east in the Santa Rosa area.

There are no protocol surveys for this species. No species-specific surveys or additional protection measures are warranted. Habitat for this species will be protected by CalVTP SPR BIO-1: Review And Survey For Project-Specific Biological Resources and by the provisions described for bald eagles, golden eagles, other raptors and migratory birds, above.

CALIFORNIA RED-LEGGED FROG

California red-legged frog (CRLF) (*Rana draytonii*), is an amphibian species federally listed as threatened and a state SSC. CRLF utilize riparian habitats with permanent pools (greater than 2 1/3-foot deep), still or slow-moving water, and well-vegetated terrestrial areas within the riparian corridor for breeding. Breeding begins after the first large storm in the fall or winter and generally runs from November through May. Adults have been identified up to 100 meters from water in adjacent dense riparian vegetation during summer hibernation and are most vulnerable when traveling cross-country to breading habitat during rainy nights in the fall.

There are Class I watercourses in the project area; located in units SR1a (McKenzie Creek) and BJ5 (Wark Creek). These watercourses have open canopies and are currently lacking in dense riparian vegetation. Most sections dry up most years, however, they may offer required breading pool depth for this species in wetter years. There are no ponds, artificial water features, wetlands or other habitat types that support CRLF breeding in the project area.

There are 15 recorded CNDDB occurrences within a 9-quad search of the project area, the closest being 3 miles south in Sheephouse Creek. There are no known observations within 1 mile of the project area or within the planning watersheds of the project areas.

No surveys or additional protection measures are warranted (See Revision of protocol-level survey requirements for California Red-legged Frog (*Rana draytonii*), below). Breading habitat for this species will be protected by SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones and SPR-BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. See also Listed Salmonids, below. Additionally, disturbance to this species is mitigated by the following measures:

- Under the 2008 USFWS Guidelines there are a series of questions to assess take. To provide that info, there are no recorded observations within the planning watersheds of this project area.
- For a unit that is pending treatment: potential breading habitat for this species will be assessed in the field, within 300 feet of each treatment unit, and within 3 weeks of the start of mechanical or burning operations.
- If during the assessment CRLF suitable breeding habitat is observed: there will be no operations within 300 feet watercourses adjacent to the project area following ¼" of rain after October 15th.

- For the entire project area: there will be no nighttime operations and no operations for at least 72 hours following any rain of more than 1/2".

LISTED SALMONIDS

Listed salmonids that potentially occur in the project area include the Coho salmon California coast ESU, Chinook salmon - California Coastal ESU, steelhead - central California coast DPS, and steelhead - northern California DPS winter-run. Steelhead - central California coast DPS is the only confirmed salmonid in or adjacent to the project area (per, CDFW-BIOS).

Salmonids require cool, clean water, and beds of loose, silt-free, coarse gravel for spawning. The species also needs adequate cover and sufficient dissolved oxygen. Suitable habitat exists for salmonid species in multiple locations:

McKenzie Creek

In Unit SR1a, a 200-foot section of McKenzie Creek intersects the project area and approximately 1-mile of McKenzie Creek and 250-feet of an unnamed tributary flows adjacent to the project area. These sections of Class I watercourses will be given 100 to 150-foot WLPZ buffers (depending on slope) that include a 30-foot no treatment buffer immediately adjacent to the watercourses. No burning or herbicide treatments will occur within 150 feet of these watercourses. Mechanical operations will only occur on existing roads (Seaview Ranch Road).

Ward Creek

In Unit BJ5, a 200-foot section of Ward Creek intersects the project area and approximately 500-feet of Ward Creek flows adjacent to the project area. These sections of Class I watercourses will be given 75 to 150-foot WLPZ buffers (depending on slope) that include a 30-foot no treatment buffer immediately adjacent to the watercourses. No burning or herbicide treatments will occur within 150 feet of these watercourses. Mechanical operations will only occur on existing roads (Blue Jay Ridge Road).

In Unit HR 6, multiple 200-foot sections of non-fish bearing Class II and Class III tributaries to Ward Creek intersect the project area. They will be given 30 to 50-foot WLPZ buffers (depending on slope) that include a 30-foot no treatment buffer immediately adjacent to the watercourses. No burning or herbicide treatments will occur within 150 feet of these watercourses. Mechanical operations will only occur on existing roads (Hazel's Road).

Russian Gulch and East Fork Russian Gulch and Tributaries

In Unit MR 7d, a 200-foot section of East Fork Russian Gulch intersects the project area, and approximately a 1,500-foot section of Russian Gulch runs adjacent to the unit. These sections of Class I and Class IIL watercourses will be given 150-foot WLPZ buffer that includes a 30-foot no treatment buffer immediately adjacent to the watercourses. No burning or herbicide treatments will occur within 150 feet of these watercourses. Mechanical operations will only occur on existing roads (Muniz Ranch Road).

In Unit MR 7b, a 400-foot section of an unnamed tributary to the East Fork Russian Gulch runs adjacent to the project area. There is no salmonid habitat in this portion of the watercourse, however this section of Class II watercourse will be given 100-foot WLPZ buffer that include a 30-foot no treatment buffer immediately adjacent to the watercourses. No burning or herbicide treatments will occur within 150 feet of these watercourses. Mechanical operations will only occur on existing roads (Muniz Ranch Road).

Class III Tributaries Leading to Fish Bearing Watercourses

There are approximately 35 flashy Class III tributaries that lead to fish bearing watercourses. They will be given 30 to 50-foot WLPZ buffers (depending on slope) that include a 30-foot no treatment buffer immediately adjacent to the watercourses. No burning or herbicide treatments will occur within 30 feet of these watercourses. Mechanical operations will only occur on existing roads.

Additional Measures to Avoid and Reduce Impacts

No surveys or additional protection measures are warranted. Habitat for listed salmonids will be protected by *SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones* and *SPR-BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Functio*n. The project proponent will establish Watercourse and Lake Protection Zones on either side of watercourses as defined in the table below.

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

Water Class	Class I	Class II	Class III	Class IV
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.	Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.
WLPZ Width (ft) - Distance from top of bank to the edge of the protection zone				
< 30 % Slope	75	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	150	100		

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

SPR HYD-4 (Identify and Protect Watercourse and Lake Protection Zones and *SPR-BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function)* will apply to all treatments.

1. *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. 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).*
2. *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.*
3. *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.*
4. *WLPZs will be kept free of slash, debris, and other material that harm the beneficial uses of water. Accidental deposits will be removed immediately.*
5. *Burn piles will be located outside of WLPZs.*
6. *No fire ignition (nor use of associated accelerants) will occur within WLPZs, however low intensity backing fires may be allowed to spread into WLPZs.*
7. *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.*
8. *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.

9. *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.*
10. *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.*

Fuels reduction treatments within WPLZ will be limited to the following, according to SPR-BIO-4 (Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function).

1. *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.*
2. *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.*
3. *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; 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.*
4. *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).*
5. *Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided.*
6. *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.*

Maintenance of Habitat Function

Habitat function for listed salmonids will be maintained because treatments would not occur within the stream bed or bank and treatments within WLPZs would be limited pursuant to *SPR HYD-4: Identify and Protect*

Watercourse and Lake Protection Zones and *SPR BIO-4: Design treatment to Avoid Loss or Degradation of Riparian Habitat Function.* This project will aid in reducing habitat loss by reducing the potential impacts of high-severity megafires.

NORTHWESTERN POND TURTLE

Pond turtles are mostly aquatic but will leave water to travel to surrounding upland habitats to nest, overwinter, bask and aestivate. Eggs are laid in excavated nests beneath leaves or soil up to 400 meters (0.25 miles) from water. Habitat suitability is defined by the presence of water, in addition to deep pools and slow-moving water. Basking sites, aquatic refugia, streamside refugia, and upland nesting areas are also associated with pond turtle habitat (USGS 2006a). Aquatic habitats are occupied from May-August. September - April is spent overwintering in riparian areas or the uplands. Nesting occurs in the summer (mid-June to mid-July) and hatchlings overwinter in the nest and emerge the following spring (March). Western Pond Turtles can be encountered in upland habitats at any time of year (Reese and Welsh 1997).

There are 22 CNDDB occurrences for *Emys marmorata (Actinemys marmorata)* 9-quad search of the project area, the closest being about 3.5 miles to the southeast in the Russian River estuary and 3 miles east in Austin Creek. There are no ponds within or adjacent to the project area. The streams within the project area lack slow moving water, deep pools, and year-round flow most years, making them marginal habitat. Western Pond Turtles are unlikely to occur in the project area. Unit SR1a (McKenzie Creek), BJ5 (on Ward Creek potentially have habitat.

Fuels reduction and prescribed burning will reduce the probability of high-intensity, high-severity wildfires that would 1) greatly reduce riparian canopy closure and raise water temperatures, and 2) increase sediment deposition from debris torrents (Ice et al., 2004). Research has shown that thinning and prescribed fire treatments can have no effect or mildly increase water quantity and quality, benefiting aquatic species (Roche et al., 2020, Robles et al., 2014).

No surveys are warranted as aquatic habitat for this species is already protected by existing watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). The existing survey protocol for Western Pond Turtle is designed to determine presence/absence. Nesting sites are cryptic and no survey methodology exists to identify them, therefore, no seasonal restrictions are warranted. Habitat function for special-status amphibians will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process.

NORTHERN CALIFORNIA RINGTAIL

The northern California ringtail (*Bassariscus astutus raptor*) is fully protected in California. This species uses a variety of habitats such as dry, rocky, brush-covered hillsides, or riparian areas, typically not far from an open water source. Dens most often in rock crevices, boulder piles, or talus, but also tree hollows, root cavities, woodrat nests, and rural buildings. Rarely use same den for more than a few days. Females with litters change dens within 10 days of birth and almost daily after 20 days. There is no rocky areas in or adjacent to the project area. There is limited riparian habitat and/or potential perennial water in Units SR1a.

There are no observations of any *Bassariscus* species in the CNDDB database.

There are no protocol surveys for this species. No surveys or additional protection measures are warranted. Available habitat for this species will be protected by SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones and SPR-BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function.

WESTERN BUMBLE BEE

The western bumble bee (*Bombus occidentalis*) is state proposed endangered. It has been in decline in California since the early 1900s and has more recently been identified in higher elevations (Xerces Society Listing Petition, 2018). See map, below. This species occupies meadows and grasslands and prefers abundant flowering resources. Nest sites are primarily under ground in cavities such as squirrel burrows but have also been found above ground in logs Bumble bee colonies obtain all of their nutrition from pollen and nectar, and need a

continuous supply of flowers during the entirety of the colony's life (spring through fall). Open meadows and other wet areas are considered the most important habitat type. The project is primarily in forestland and there are a limited number of year-round flowering plants in and adjacent to the project area. Most of the grass and forbs in the area have died back by late summer due to the Mediterranean climate coupled with the lack of historic fog regime. See Map of evolving range for this species in Removal of protocol-level survey requirements for western bumble bee (Bombus occidentalis occidentalis), below.

Observations *Bombus occidentalis* in Sonoma County are mostly from the 1940s-1070s; the closest known observation is 2.5 miles south on coastal bluffs near Jenner.

No focused-level surveys are warranted as western bumble bees are not expected to occur within the project area because it is outside the updated range of this species as determined by the Xerces Society. (See SPR BIO-10: Survey for Special-Status Wildlife and Nursey Sites, below.)

Habitat for this species (and other bees) will be protected by Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities) described in more detail below.

Herbicide use will only be applied by direct injection to non-native and/or overstocked trees. The project does not include application of herbicides to control non-tree plants (including invasive plants). Burn piles will be limited in size and positioned in areas that are not occupied by host plants for *Bombus* species. Broadcast burning will be limited in scale and cover a portion of each project unit; generally, around 3 acres in fall and winter as weather conditions allow.

Additional measures to Avoid and Reduce Impacts
Pursuant to Mitigation Measure BIO-2b of the CalVTP, the Project Proponents may consult with CDFW concerning special-status bumble bees that may occur in the project area. Based on the evidence provided above, the Project Proponents are seeking CDFW's concurrence that 1) the western bumble bee is unlikely to occur in the project area; 2) that protocol-level surveys are not required (see SPR BIO-10 below); and 3) that the proposed revised mitigation measures are satisfactory. The relevant excerpt of Mitigation Measure BIO-2g is included below:

If special-status bumble bees are identified as occurring during review and surveys under SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, or if suitable habitat for special-status bumble bees is identified during review and surveys under SPR BIO-1 (e.g., wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species), then the project proponent will implement the following measures, as feasible:

1. *Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season.*
2. *Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.*
3. *Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area).*
4. *Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September).*

Maintenance of Habitat Function

The habitat function for all bumble bee species would be enhanced and maintained because treatment activities will create a more open understory in the forested area, making it more suitable for recruitment of flowering plants (CAL FIRE 2022).

The proposed shaded fuelbreaks and follow-up use of broadcast burning for maintenance (in limited areas) is expected to benefit bumble bee (and other) species. Prescribed burns have been shown to reduce negative impacts from exotic plant species and increase native plant establishment and performance (Alba et al., 2015). Research results support the use of low-intensity prescribed fire for enriching floral resources for bumble bees and suggest that prescribed fire has net neutral or positive short-term effect on bumble bees (Gelles et al. 2023, Tai et al. 2022).

Without treatment, conifer encroachment of the oak woodlands and annual grasslands will continue unabated. Not implementing the project would not only result in continued habitat degradation, but also render the habitat susceptible to catastrophic, large scale, and high intensity fires due to increases in fuel loads, tree density, and fire intolerant species (Huntzinger 2003). Catastrophic, large scale, and high intensity fires may be particularly harmful to already vulnerable populations of bumble bees (Xerces Society Listing Petition, 2018).

The following was also provided to CDFW:

MITIGATION MEASURE BIO-2B: AVOID MORTALITY, INJURY, OR DISTURBANCE AND MAINTAIN HABITAT FUNCTION FOR OTHER SPECIAL-STATUS WILDLIFE SPECIES

Pursuant to **Mitigation Measure BIO-2b** of the CalVTP, the Project Proponents are required to consult with CDFW for non-listed special status species that may occur in the project area. For this project, those species are:

Common Name	Scientific Name	CNDDB Observation Within 1 Mile?
osprey	***Pandion haliaetus***	**Yes**
sharp-shinned hawk	*Accipiter striatus*	No
olive-sided flycatcher	*Contopus cooperi*	No
purple martin	*Progne subis*	No
yellow-breasted chat	*Icteria virens*	No
Pacific lamprey	*Entosphenus tridentatus*	No
western brook lamprey	*Lampetra richardsoni*	No
chinook salmon - California coastal ESU	*Oncorhynchus tshawytscha* pop. 17	No
steelhead - central California coast DPS	*Oncorhynchus mykiss irideus* pop. 8	No
steelhead - northern California DPS winter-run	***Oncorhynchus mykiss irideus* pop. 49**	**Yes**
Gualala roach	*Hesperoleucus parvipinnis*	No
northern coastal roach	*Hesperoleucus venustus navarroensis*	No
hardhead	*Mylopharodon conocephalus*	No
Russian River tule perch	*Hysterocarpus traskii pomo*	No
western red bat	*Lasiurus frantzii*	No
Sonoma tree vole	***Arborimus pomo***	**Yes**
American badger	***Taxidea taxus***	**Yes**
western pond turtle	*Emys marmorata*	No
red-bellied newt	***Taricha rivularis***	**Yes**
California giant salamander	***Dicamptodon ensatus***	**Yes**
California red-legged frog	*Rana draytonii*	No
foothill yellow-legged frog - north coast DPS	***Rana boylii* pop. 1**	**Yes**

The CNDDB 9-quad search for Arched Rock, Fort Ross and Cazadero (12 quads total) includes 4 quads with coastal habitats. Most species that are coastal bluff or ocean dwelling do not have habitat in the project area. Accordingly, the project area is not in the range of or does not have habitat for the following species that are listed as SSC on the CNDDB 9-quad search in June 2024: western snowy plover (*Charadrius nivosus nivosus*), Cassins auklet (*Ptychoramphus aleuticus*), tufted puffin (*Fratercula cirrhata*), burrowing owl (*Athene cunicularia*), eulachon (*Thaleichthys pacificus*), Sacramento hitch (*Lavinia exilicauda exilicauda*), central California roach (*Hesperoleucus symmetricus symmetricus*), Russian River tule perch (*Hysterocarpus traskii pomo*), tidewater goby (*Eucyclogobius newberryi*),

There is no cliff and/or outbuilding, and/or tree hollow, and/or riparian habitat for the following species: Townsends big-eared bat (*Corynorhinus townsendii*), and pallid bat (*Antrozous pallidus*), yellow warbler (*Setophaga petechia*).

According to the CNDDB viewer in June 2024, 6 of the SSC species listed above has been observed within 1 mile of the project area (see bold entries in table above).

The California Red-legged frog, Western pond turtle, and Listed Salmonids are described above.

See also, General avoidance mitigation measures, above.

Mitigation Measure BIO-2b provides the Project Proponents the opportunity to consult with CDFW regarding their determination that habitat function for non-listed special status species is reasonably expected to improve with implementation of the treatment. MM BIO-2b provides that, if the project proponent can demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment, an exception to the MM BIO-2b mitigation approach as written may be made.

Following is the relevant excerpt from Mitigation Measure BIO-2b, which is provided for context.

Avoid Mortality, Injury, or Disturbance of Individuals

The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals:

1. *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).*
    a. ***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 activities that could result in mortality, injury or disturbance to special-status species.*

b. ***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.*

Species Identified as SSC With Habitat (in or adjacent to) the Project Area

This section is intended to provide CDFW with the necessary analysis and mitigation measures to justify the Project Proponent's determination that habitat function for non-listed special status species is reasonably expected to improve with implementation of the treatment. This section is also intended to help facilitate a consultation meeting between the Project Proponents and CDFW staff if one is requested by CDFW.

OSPREY

Osprey (*Pandion haliaetus*) can be found along ocean shores, bays, freshwater lakes, and larger streams. They build large nests in tree-tops or human-made structures (e.g., power poles, radio towers, etc.) within 15 miles of good fish-producing bodies of water (the Pacific Ocean in this area).

There are 5 CNDDB occurrences for osprey within the 9-quad search surrounding the project area, the closest being about 3 miles to the west in Stockoff Creek (Stillwater Cove). It is possible that there are unrecorded osprey nests present along other Class I watercourses in the area.

During the focused survey (see For all nesting birds, above) the surveyor will pay particular attention to large snags and dead-topped trees, as these are the preferred nesting sites for osprey. Osprey nests are large, exposed nests made of sticks and lined with bark, sod, grasses, vines, and/or algae. If an active nest is found, for all treatment activities other than prescribed burning, a buffer zone of at least 5 acres in size around the nest tree shall be established. All nest trees containing active nests, and all designated perch trees, screening trees, and replacement trees, shall be left standing and unharmed.

For mechanical treatments and/or prescribed burning maintenance, the project proponent is proposing to NOT limit treatments to exclusively outside the sensitive period of the species' life history. The sensitive period for the osprey is March 1 to April 15 for active nests. This period is extended from April 15 until August 1 for occupied nests. For prescribed burning the project proponent WILL implement a 5-acre buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside the sensitive period for all 14 non-listed special status species. The project proponent is proposing to NOT limit prescribed fire treatments to outside the sensitive period because habitat function for osprey is reasonably expected to improve with implementation of the treatment.

Treatments will improve habitat for osprey as treatments are designed to reduce ladder fuels and promote the retention and recruitment of large trees, which are critical for osprey nesting habitat. The proposed treatment activities will focus on thinning trees less than 16" DBH, which has been shown in studies to promote residual tree growth (Zald et al, 2022). In northern California, osprey nest trees ranged from 30 to 81 inches DBH and nest heights averaged 135 feet (Airola and Shubert 1981). In addition, osprey also need tall, open-branched "pilot trees" nearby for landing before approaching the nest, and for use by young for flight practice (Airola and Shubert 1981). Promoting forest stands capable of large tree growth will improve osprey habitat over time.

SHARP-SHINNED HAWK

Sharp-shinned hawk (*Accipiter striatus*) is both a common migrant and a winter resident hawk typically nesting in dense well-shaded north-facing slopes adjacent to a perennial water source. It is known to breed April through August; however, it is the least common breeding accipiter in California. This species roosts in intermediate to high-canopy forests and often forages in openings at edges of woodlands, hedgerows, brushy

pastures, and shorelines, especially where migrating birds are found. It may be seen foraging adjacent to the project area during the winter or migrating season.

There are no CNDDB occurrences for sharp-shinned hawk within the 9-quad search surrounding the project area (or in Sonoma County), the closest observation is about 3o miles to the east near a reservoir in Napa county.

Focused surveys will occur up to three weeks before treatment (see For all nesting birds, above). No other surveys are warranted as this species may be seen foraging adjacent to the project area, but does not likely breed in this area due to the lack of preferred nesting habitat.

OLIVE-SIDED FLYCATCHER

The olive-sided flycatcher (*Contopus cooperi*) is a migratory bird that nests in open-canopy conifer forest near edge openings, usually breading at higher elevations (Shuford and Gardali 2008; Altman and Sallabanks 2000). In this area, it is primarily a summer resident and migrant mainly from mid-April through early October. The breeding season in California extends from early May to late August (Bent 1942, Altman and Sallabanks 2000, Sequoia Audubon Society 2001, MVZ egg data). In Douglas-fir forests in northwestern California, the species is detected more often at forest edges than in forest interiors (Rosenberg and Raphael 1986).

There are no CNDDB occurrences for this species.

Focused surveys will occur up to three weeks before treatment (see For all nesting birds, above). No other surveys are warranted as this species may be seen foraging adjacent to the project area, but does not likely breed in this area. Suitable snags will be retained to benefit this and other species that depend on them for habitat.

PURPLE MARTIN

The purple martin (*Progne subis*) is an uncommon migratory bird species in this area (Sonoma County) however it utilized Douglas-fir, redwood and other forest types on other parts of Northern California. It nests in cavities from April into August in hollowed snags. During migration and foraging, it can occupy grasslands and other open areas, and is usually near water, accordingly, this species may be seen foraging adjacent to the project area.

There are no CNDDB occurrences for purple martin within the 9-quad search surrounding the project area. The closest observations are about 30 miles to the east (east of Napa valley) where large wildfires have created conifer snags and openings.

Focused surveys will occur up to three weeks before treatment (see For all nesting birds, above). No other surveys are warranted as this species may be seen foraging adjacent to the project area during migration, but does not likely breed in this area. Suitable snags will be retained to benefit this and other species that depend on cavities for breeding habitat.

YELLOW-BREASTED CHAT

The Yellow-breasted chat (*Icteria virens*) is a migratory bird species that is a summer resident primarily from late March to late September (Garrett and Dunn 1981, Unitt 2004). Although there are no observations in Sonoma County on the CNDDB, it is known to breed in riparian areas around Sonoma and Santa Rosa (Grinnell and Miller 1944, MVZ specimens or egg sets). Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers and seldom forms extensive tracts. Blackberry (Rubus spp.), wild grape (Vitis spp.), willow, and other plants that form dense thickets and tangles are frequently selected as nesting strata (Grinnell and Miller 1944). There may be habitat for this species in units SR1a.

There are no CNDDB occurrences for yellow-breasted chat within the 9-quad search surrounding the project area (or in Sonoma County), the closest observation is about 6o miles to the east (Solano County) and 60 miles north; both in riparian areas.

Focused surveys will occur up to three weeks before treatment (see For all nesting birds, above). No other surveys are warranted as aquatic habitat for this species is already protected by existing watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function).

SALMONIDS, LAMPREY, ROACH AND OTHER FRESHWATER AQUATIC SPECIES

See also Listed Salmonids, above. There are several anadromous, catadromous, and freshwater aquatic species that could have habitat in the project area. While habitable temperatures differ between species, all depend on the flowing water that Class I watercourses in the and/or adjacent to the project area generally provide.

Below is a list of the aquatic SSC that are on the 9-quad search (12 quads total) and their observation status on CNDDB as of June 2024:

Species	CNDDB Observations in 9-Quad Search Area	Closest Observation
Pacific lamprey (*Entosphenus tridentatus*)	none	Humboldt County, Shasta County
western brook lamprey (*Lampetra richardsoni*)	none	Humboldt County
chinook salmon - California coastal ESU (*Oncorhynchus tshawytscha* pop. 17)	none	Humboldt County
steelhead - central California coast DPS (*Oncorhynchus mykiss irideus* pop. 8)	5	Austin Creek
steelhead - northern California DPS winter-run (*Oncorhynchus mykiss irideus* pop. 49)	5	McKenzie Creek
Gualala roach (*Hesperoleucus parvipinnis*)	2	Austin Creek
northern coastal roach (*Hesperoleucus venustus navarroensis*)	none	Russian River at Healdsburg
hardhead (*Mylopharodon conocephalus*)	none	Tributary to Russian River at Anderson Valley
Russian River tule perch (*Hysterocarpus traskii pomo*)	2	Russian River at Healdsburg

Federally listed species that potentially occur in the project area include Coho salmon California coast ESU, Chinook salmon - California Coastal ESU, steelhead - central California coast DPS, and steelhead - northern California DPS winter-run. The USFWS has also been contacted for consultation for these species.

See relevant salmonid habitat information and protection in Listed Salmonids, above. Generally, those habitat information and protection measures that apply to salmonids also apply to and protect lamprey, roach and other potential aquatic species in the project area (GRWC, 2016).

WESTERN RED BAT

The western red bat (*Lasiurus frantzii*) is distinguished from most other California taxa by its foliage roosting habits and thus its apparent reliance on riparian forests for both roosting and foraging. Pierson et al. (2006) describes western red bats as strongly associated with riparian habitats, and roosting primarily in mature hardwood trees (with no conifers being used). Observations document this the preference of this species to roosts in the canopy foliage of the largest trees, at an average height of 50 feet. Mating occurs in August and September. Births range from late May through early July. Lactation lasts 4-6 weeks, and the young are capable of flight between 3-6 weeks of age.

There is 1 CNDDB occurrences for this species within the 9-quad search of the project area, it is located approximately 12 miles to the southeast within the Russian River riparian corridor (between Forestville and Guerneville). There may be potential suitable habitat along the creeks within unit BJ5.

No surveys are warranted as the riparian hardwood trees this species primarily occupy are protected by WLPZ buffers (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). A small amount

of encroaching Douglas-fir trees may be removed from the WLPZ to reduce ladder fuels, but no hardwood trees will be affected.

Habitat for the western red bat can be reasonably expected to improve because removing encroaching conifers will maintain the existing hardwood dominance in the riparian areas. Riparian hardwood forest is an essential habitat characteristic for this species.

SONOMA TREE VOLE

Because of their exclusive diet of conifer needles, Sonoma tree voles (*Arborimus pomo*) are restricted to conifer forests. Though they use a variety of tree species, they principally feed on Douglas-fir needles and nest in Douglas-fir trees. Although tree voles occur and nest in younger, second-growth forests, they tend to be more abundant in, and strongly select for, older forests. Nests tend to be found in the larger-diameter trees within a stand. Tree voles live in tree tops and rarely come to the forest floor. Tree voles strip away the resin ducts and eat the remaining portion of the conifer needle. Piles of these resin ducts on the ground may be seen under trees where tree voles have foraged. Nests are constructed of branchlets, discarded resin ducts, and other materials, ultimately shaped into a sphere with interior tunnels. The Sonoma red tree vole breeds year-round.

Suitable habitat for *Arborimus pomo* is present within the project area and there are 26 recorded CNDDB occurrences within a 9-quad search of the project area, the closest being about 1 mile to the north in McKenzie Creek.

Focused surveys will include observation of any nests or resin ducts. Any tree or trees associated with the observations will be flagged and will be avoided during treatments. A no-disturbance buffer or seasonal restriction is not warranted because most tree voles occupy the largest trees, which are not the focus of the fuels reduction treatments (trees up to 10” DBH are the target). Low-intensity prescribed burning is unlikely to affect the canopy of large Douglas-fir in the project area, therefore, tree voles do not require additional protection measures.

The proposed treatments should maintain and/or improve habitat function for Sonoma tree vole, as they are expected to promote late successional forest characteristics that are preferred by this species.

AMERICAN BADGER

Habitat for the American badger (*Taxidea taxus*) is most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. The project area contains potential suitable habitat in the small grassy openings, though better suitable habitat exists outside the project area in the larger, more contiguous grasslands.

There are 6 CNDDB occurrence for this species within the 9-quad search, all are in grazed grassland habitat within Jenner Preserve, the closest being about 2 miles to the southeast of the project area. This author has observed badgers at the Muniz Ranch Road and Highway 1 junction.

Focused surveys for badgers will be conducted up to three weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect occupied sites (dens), typically one day for most proposed treatment activities. The survey for dens will be conducted during the day. The survey will include walking throughout the scheduled treatment unit and visually searching for badger dens. The surveyor will pay particular attention to the ground in open grassland areas, as badger reproductive dens are found on the ground, typically in dry, often sandy, soil, and usually in an area with sparse overstory cover. ff an active den is found, for all treatment activities other than prescribed burning, a buffer zone of at least 100’ around the occupied site shall be established.

For prescribed burning, the project proponent is proposing to not limit treatments to exclusively outside the sensitive period of the species’ life history. The sensitive period for the American badger is March to September. Badger young are born in March or April, and the young stay with the female for five to six months. For prescribed burning the project proponent will implement a 100’ buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive

sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside the sensitive period for all 14 non-listed special status species. These modified disturbance mitigation measures are justified because habitat function for American badgers is reasonably expected to improve with implementation of the treatment.

Treatments will improve habitat for American badgers because treatments are designed to improve the native grassland habitat. Badgers prefer to burrow and den in open grasslands and are less likely to burrow and den in the overly dense forest that currently covers a majority of the project area (Huck, 2010; Quinn, 2008). The proposed treatment activities will focus on thinning encroaching conifers from the existing grassland and replanting the grassland with native grass seed in the spring following prescribed fires. Maintaining open, xeric, grassland habitat across California will be critical to maintaining habitat for this special status species.

RED-BELLIED NEWT

The red-bellied newt (*Taricha rivularis*) ranges within Sonoma, Mendocino, Humboldt and Lake counties. It primarily inhabits redwood forest, but can also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Red-bellied newts are primarily active at night and migrate to streams during autumn rains, returning to terrestrial habitat in the spring. They may migrate a mile or more to and from the breeding stream. Migratory movements stimulated primarily by rain, but in heavy amounts rain inhibits movement toward the stream. Rapid streams with rocky substrate are required for breeding and egg-laying. Aestivation in terrestrial habitat takes place during the summer months, where red-bellied newts spend the dry season underground within root channels (Thomson et al. 2016).

Suitable habitat for red-bellied newt is present within the project area and there are 37 recorded CNDDB occurrences within a 9-quad search of the project area, the closest being about 1 mile to the west in South Fork Gualala River.

No surveys are warranted as the aquatic habitat where this species primarily lives and reproduces is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Mechanical operations and burning treatments will not occur during rainy weather when red-bellied newts migrate, therefore, no seasonal restrictions are warranted.

CALIFORNIA GIANT SALAMANDER

The California giant salamander (*Dicamptodon ensatus*) is a large amphibian that ranges within several north and south counties including Sonoma. In this area it primarily inhabits mesic coastal forests (oak woodland and coniferous forests. Very little is known about terrestrial habitat use by adults and metamorphs, although adults are occasionally found surface active or under cover objects in wet conditions (Petranka 1998). Breeding and larval development occurs in cold permanent and semipermanent streams (Petranka 1998). Adults return to streams to breed during the fall rainy season (Kessel and Kessel 1943) and in the spring (Stebbins 2003). The larval stage lasts approximately 18 months and they metamorphose in late summer (Kessel and Kessel 1943 and 1944). Suitable habitat for this species is present within the project area.

There are 54 recorded CNDDB occurrences within a 9-quad search of the project area, the closest being within a mile in Ward Creek, Pole Mountain Creek, and the South Fork Gualala River.

No surveys are warranted as there is no species-specific terrestrial habitat to protect, and the aquatic habitat where this species reproduces is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Additionally, mechanical operations, burning and herbicide treatments will not occur during rainy weather when salamanders may be more likely to be moving across terrestrial landscape to breeding areas.

FOOTHILL YELLOW-LEGGED FROG - NORTH COAST DPS

The foothill yellow-legged frog (*Rana boylii*) occurs in the Coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles Co. The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including partly-shaded, shallow streams & riffles with a rocky substrate. In all habitats, the

species is seldom found far from permanent streams with banks that can provide sunning sites. Normal home ranges are less than 33 feet in the longest dimension (Thomson et al. 2016). Occasional long-distance movements 165 feet may occur during periods with high water conditions.

There are over 70 CNDDB occurrences for this species in the Class I and II watercourses around the project area, the closest being about 1 mile to the west in South Fork Gualala River, adjacent to the project area in Ward Creek (Russian River) and adjacent to the project area in Russian Gulch.

No surveys are warranted as the aquatic habitat where this species primarily lives and breeds is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Broadcast burning is unlikely to occur during the conditions when yellow-legged frogs are dispersing outside the riparian areas (high water conditions) therefore, no seasonal restrictions are warranted. Habitat function for special-status amphibians will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process.

Provided to CDFW and USFWS:

SPR BIO-10: SURVEY FOR SPECIAL-STATUS WILDLIFE AND NURSEY SITES
Revision of protocol-level survey protocols for northern spotted owl

Based on the information provided below, The Project Proponents are proposing the use of a Daytime Stand Search as opposed to a protocol-level survey for Northern spotted owl (*Strix occidentalis caurina*).

Northern Spotted Owl Worksheet
Submitted to Facilitate Review

CalVTP Project Name: *Evacuation Route and Hazardous Fuels Reduction Project.*

CalVTP Project Number: pending

NSO activity centers within 0.7 miles of the Plan:

Known activity centers inside project area:	None
Known activity centers within 500 feet:	None
Known activity centers within 1000 feet:	None
Known activity centers within 0.25 miles:	Yes
Known activity centers within 0.7 miles:	1

NSO activity centers within 0.25 miles of Appurtenant Permanent Roads: 1

NSO activity centers within 0.25 miles of Appurtenant Seasonal Roads: None

A. Documentation

NSO documentation includes:

1. NSO CNDDB/BIOS database print-out. Report Generation Date: 6/17/2024
2. NSO Habitat Map
3. NSO Assessment Area within 0.7 miles of treatment area
4. Habitat acreage tables (pre- and post-treatment)
5. Definitions of nesting-roosting and foraging habitat
6. Description of size and shape of habitat patches

B. Project Evaluation

Would the proposed plan significantly disrupt, impair or adversely modify the following:

a. Prey Base (within 0.7 miles of NSO): **No**
b. Foraging Habitat/Behavior: **No**
c. Roosting Structure/Behavior: **No**
d. Nesting Structure/Behavior: **No**
e. Other (predation, exposure, etc.): **No**

f. Will treatments associated with this plan isolate any NSO activity center by more than 0.5 miles from areas of suitable habitat: **No**

g. Are the habitat retention standards, according to USFWS "Final (3/15/2011) Attachment A Take Avoidance Analysis – Coast" being met? **Yes**

h. Are treatments proposed within the 100-acre core habitat polygon of any known NSO activity center: **No**

Item 1. Northern Spotted Owl Database - Run Date: 6/17/2024
This Confidential document was provided to CDFW and USFWS.

Item 2 : Habitat Maps for Plan Area out to 0.7 miles
These Confidential documents were provided to CDFW and USFWS.

Item 3: Habitat Acreage for Plan Area out to 0.7 miles
NSO Habitat Types – 0.7 Mile Assessment Area (11,785 Acres)
Nest/Roost: 7,079 Acres
Forage: 1,636 Acres
Non-Habitat: 3,070 Acres

NSO Habitat Types – Treatment Area (165 Acres)
Nest/Roost: 114 Acres
Forage: 25 Acres
Non-Habitat: 26 Acres

Items 4 and 5: Habitat Descriptions and Typing
The 165-acre project area is comprised of native and non-native forests (both conifer and hardwood), edges of developed and active agricultural lands, some native and non-native shrubs, and abandoned pasture and grassland vegetation types. The vegetation types are most similar to the Montane Hardwood Conifer (MHC) and Annual Grassland (AG) California Wildlife Habitat Relationship (CWHR) classifications. Much of what is classified as grassland and shrubland is actually forestland that was converted to pasture and is slowly returning back to forestland. Surrounding the project area, and as soil types allow, there remain isolated native grasslands within the native forestlands.

Native forest in the project area are primarily conifer (redwood and/or Douglas-fir) with a hardwood component including tanoak and madrone, and some understory shrubs including huckleberry and poison oak. The entire area has been logged at least once. Accordingly, trees range in age from seedlings to approximately 50 years old (with a few scattered older defect trees). There are some stands that are hardwood dominant including tanoak, madrone, live oaks, and true oaks.

Pre-European contact, tribes in this area burned to maintain meadows and forestlands. Post-contact settlers harvested timber and used burning to increase pasture for livestock. Once grazing was ceased, fire suppression increased and resulted in Douglas-fir encroachment of the oak woodlands and repopulation of pioneer forbs and brush species.

Most of the forest habitats (conifer or hardwood) that contains ≥60% canopy cover qualify as nest/roost habitat. This includes some of the non-native pine forest habitats.

Most of the forest habitats (conifer or hardwood) that contains ≥40% canopy cover qualify as foraging habitat. This includes some of the non-native pine and areas identified as brush on the FRAP and Sonoma Veg maps but have actually grown over with trees.

There are developed areas (rural homesteads), edges of active farmland (mostly vineyards), shrublands, grasslands, bodies of water, and forests with less than 40% canopy. These areas qualify as non-habitat.

The landscape surrounding the treatment area within the 0.7-mile NSO assessment area is a mosaic of forested and grassland habitats typical of western Sonoma County. The forested areas consist primarily of nest/roost

habitat. There are no known activity centers inside the project area or within .25 miles of the project. There is 1 known activity center (moused in 2001) within 0.7 miles of the project area.

Treatments proposed in the Evacuation Route and Hazardous Fuels Reduction Project will not degrade NSO suitable habitat. Treatments will target the removal of uncharacteristic fuel loads, 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 vegetation types characteristic of the region. This includes hand removal trees and shrubs, invasive plant removal, selective thinning, and removal of Douglas-fir encroaching into grasslands. Other treatments include pile burning, low-intensity prescribed fire and small areas of direct injection herbicide use. All of the above treatments will maintain suitable habitat for northern spotted owls as well as reduce potential for damage from high-severity wildfires.

Considering 1) the location of the project area (100 feet off an existing road with year-round use), 2) that treatments will not degrade NSO suitable habitat, 3) the lack of known activity centers within .25 miles and the limited number of known activity centers (1) within the 0.7-mile NSO assessment area, and 4) the available nest roost/habitat within the project area and the adjacent forestlands, **a modified survey consisting of a single Daytime Stand Search (DTS) of the Evacuation Route and Hazardous Fuels Reduction Project. project area conducted during the breeding season (February 1 to July 31) would be sufficient to avoid 'take' of NSO.** The nest/roost habitat for each unit could be covered easily in a single visit, and will likely be accomplished when the project boundaries are flagged. Potential NSO nest trees e.g., large trees with blown out tops or cavities, will not be targeted by treatments. If treatments are scheduled for outside the breeding season, then surveys would not be warranted.

Habitat Definitions:
Northern spotted owl (NSO) habitat is defined per 14 CCR 895.1 and as modified by the USFWS Attachment A 'Coastal' NSO Habitat Description. NSO Habitats are defined as:

Nesting/Roosting: Habitat with ≥60% canopy cover of trees that are ≥11 inches DBH and have a basal area of ≥100 feet²/acre of trees ≥11 inches DBH. Trees may be conifer or hardwood. Additionally, trees within this habitat type may have crown deformities such as large limbs, dense branch whorls, broken tops and other features that could be used as nesting platforms or sheltered roosting sites.

Foraging: Habitat with ≥40% canopy cover of trees that are ≥11 inches DBH and have a basal area of ≥75 feet²/acre of trees ≥11 inches DBH. Trees may be conifer or hardwoods.

Non-Habitat: Areas of that do not meet the minimum requirements of the Nesting/Roosting or Foraging definitions. This includes recent clearcuts or similar high-intensity silviculture, homesites/urban centers, meadows, grasslands and other habitats with relatively low tree cover. The edges of these areas may provide some foraging areas but don't significantly contribute to NSO habitat.

In the event that an NSO activity center is identified within 0.7 miles of the treatment area, specific protection measures following the most current USFWS Take Avoidance Analysis-Attachment A shall be implemented on the site.

Resources used to analysis habitat types included aerial imagery and site visits of the plan area by the staff biologist, the RPF & designees. It should be noted that to maintain consistency in habitat typing for our habitat assessments, NSO habitats as shown were typed based on the definitions and not in consideration of edge effects. The majority of suitable NSO habitat acreage is not derived from narrow strips of WLPZ edge habitats or small "stands" (<6 acres) or Nest/Roost habitat, where edge effects are most likely to occur.

Revision of protocol-level survey requirements for California Red-legged Frog

The Project Proponents are proposing a revision of the protocol-level survey requirements for the California Red-legged Frog (*Rana draytonii*) due to the relatively small amount of suitable breeding habitat in and adjacent to the project area coupled with the existing protections measures in place for avoidance of breeding habitat and migrating adults and the fact that there are no known CRLF's within the planning watersheds of the project. See California Red-legged Frog (*Rana draytonii*), above for specific information about available habitat for this species.

Potential breading habitat for this species will be assessed protected by SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function.

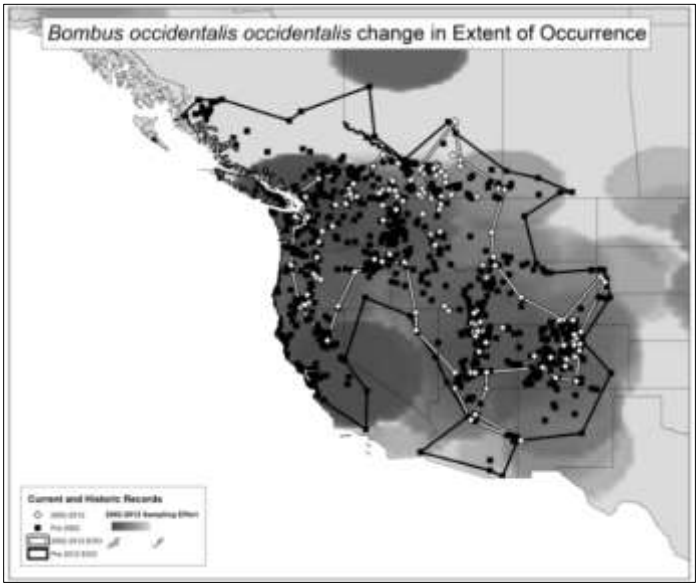
Additionally, disturbance to this species is mitigated by the following measures:

- For a unit that is pending treatment: potential breading habitat for this species will be assessed in the field, within 300 feet of each treatment unit (per, USFWS), and within 3 weeks of the start of operations.
- If CRLF suitable breeding habitat is observed during the assessment: there will be no operations within 300 feet of watercourses adjacent to the treatment unit following ¼" of rain after October 15th (per, USFWS).
- For the entire project area: there will be no nighttime operations and no operations for at least 72 hours following any rain of more than 1/2" (per, CDFW protection of multiple nocturnal amphibians)

Provided to CDFW:

Removal of protocol-level survey requirements for western bumble bee

The Project Proponents are proposing to remove protocol-level survey requirements for the western bumble bee (*Bombus occidentalis occidentalis*), because the species are not expected to occur within the project area and because the project is outside the current range according to the Xerces Society 2018 Listing Petition. See map, right. See western bumble bee (*Bombus occidentalis occidentalis*) above for general protection measure for bees.



Current and historical range map for *Bombus occidentalis occidentalis* (Xerces Society Listing Petition, 2018)

5: LIST OF PREPARERS

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