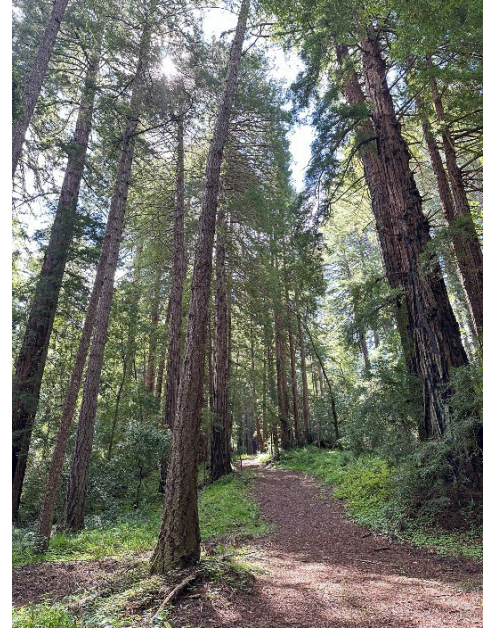
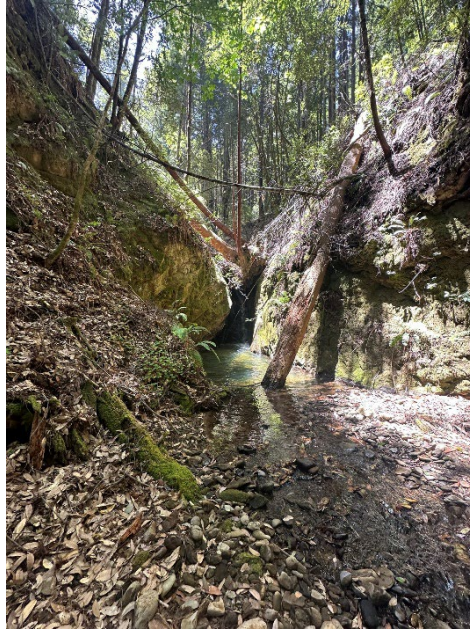
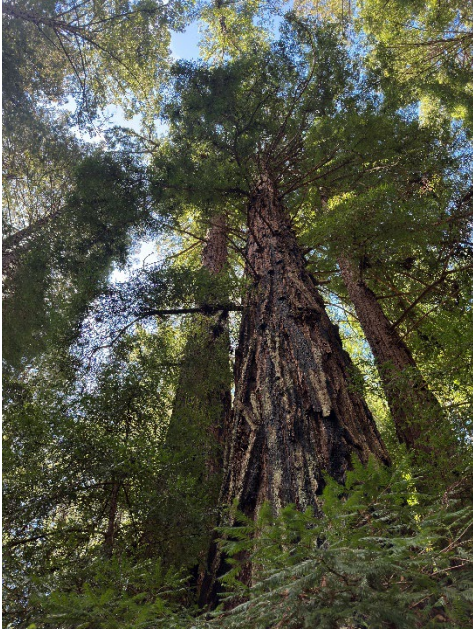


Project Specific Analysis and Addendum to the CalVTP PEIR
Pescadero Creek County Park Climate and Habitat
Resiliency Vegetation Treatment Project



Prepared for:

San Mateo County Parks



In collaboration with:

San Mateo Resource Conservation District



Pescadero Creek County Park Project-Specific Analysis

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Table of Contents

LIST OF ABBREVIATIONS	V
MISSION STATEMENT	VII
1. INTRODUCTION TO THE PROJECT-SPECIFIC ANALYSIS.....	1
1.1 CEQA Compliance	1
1.2 Proposed Project Revisions.....	3
1.3 Problem Statement	5
1.4 Goal Statement.....	6
1.5 Project Site.....	6
1.6 Project Location.....	7
1.7 Pescadero Creek County Park Ecosystem Conditions	8
2. PROJECT DESCRIPTION.....	9
2.1 Project Justification.....	10
2.2 Treatment Description.....	11
2.3 Treatment Types.....	11
2.4 Treatment Activities.....	14
2.5 Vegetation Treatment Prescriptions.....	22
2.6 Biomass Treatment.....	26
2.7 Treatment Maintenance.....	27
2.8 Guidance for Actions Following PSA Approval	29
3. ENVIRONMENTAL CHECKLIST.....	31
3.1 Evaluation of Environmental Impacts	37
4. PROJECT-SPECIFIC ANALYSIS/ADDENDUM	39
4.1 Aesthetics and Visual Resources	39
4.2 Agriculture and Forestry Resources.....	42
4.3 Air Quality.....	44
4.4 Archaeological, Historical, and Tribal Cultural Resources.....	49
4.5 Biological Resources.....	54
4.6 Geology, Soils, Paleontology, and Mineral Resources	89
4.7 Greenhouse Gas Emissions	92
4.8 Energy Resources.....	94
4.9 Hazardous Materials, Public Health and Safety	96
4.10 Hydrology and Water Quality.....	99
4.11 Land Use and Planning, Population and Housing.....	105
4.12 Noise	107
4.13 Recreation.....	109
4.14 Transportation.....	111
4.15 Public Services, Utilities and Service Systems	114
4.16 Wildfire	117
5. ATTACHMENT A - MITIGATION MONITORING AND REPORT PROGRAM FOR PESCADERO CREEK COUNTY PARK VEGETATION TREATMENT PROJECT	119
MITIGATION MONITORING AND REPORTING PROGRAM	120
5.1 Introduction.....	120

5.2 Purpose of Mitigation Monitoring and Reporting Program	120
5.3 Roles and Responsibilities	120
5.4 Mitigation Monitoring and Reporting Program Table.....	120
5.5 Qualifications Requirements for Biological and Cultural Resource Measures	121
6. ATTACHMENT B – PROJECT SPECIFIC CEQA FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS.....	191
6.1 Introduction	191
6.2 Statutory Requirements for Findings.....	191
6.3 Background and Project Description.....	192
6.4 Environmental Review Process.....	193
6.5 Record of Proceedings	194
6.6 Mitigation Monitoring and Reporting Program.....	195
6.7 Findings for Determinations of Less Than Significant	195
6.8 Significant Effects and Mitigation Measures	198
6.9 Statement of Overriding Considerations	207
7. ATTACHMENT C – PROJECT-SPECIFIC REVIEW AND SURVEY GUIDANCE FOR BIOLOGICAL RESOURCES	209
8. ATTACHMENT D – BIOLOGICAL RESOURCES – SENSITIVE SPECIES	214
9. ATTACHMENT E - AVOIDANCE MEASURE RECOMMENDATIONS FOR MAMU IN THE SANTA CRUZ MOUNTAINS FOLLOWING THE CZU LIGHTNING COMPLEX	237
10. LIST OF PREPARERS	266
11. REFERENCES	267

List of Abbreviations

ACB – Air Curtain Burner

ARC – Auten Resource Consulting

ASR – Archeological Survey Report

ATV – All Terrain Vehicle

BAAQMD – Bay Area Air Quality Management District

BBRSP – Big Basin Redwood State Park

BOF – The California Board 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

CHRP – Climate Habitat Resiliency Plan

CRM – Certified Rangeland Manager

CZU Fire – CZU Lightening Complex Fire

DPR – Department of Pesticide Regulation

DTSC – Department of Toxic Substances Control

EC – Environmental Checklist

EPA – Environmental Protection Agency

ESA – Federally Endangered Species

FMS – Forest Management Strategy

FRI – Fire Return Interval

FTP – Forest Trend Plot

GHG – Greenhouse Gas

GIS – Geographic Information System

MAMU – Marbled Murrelet

MM – Mitigation Measure

NOA – Naturally Occurring Asbestos

NOX – Nitrogen Oxides
OGRW – Old Growth Redwood
PBA – Prescribed Burn Association
PCA – Agricultural Pest Control Advisor
PCCP – Pescadero Creek County Park
PEIR – Programmatic Environmental Impact Report
PM -Particulate Matter
POST – Peninsula Open Space Trust
PPE – Personal Protective Equipment
PSA – Project Specific Analysis
PSI – Pounds per Square Inch
SENL – Single-Event Noise Levels
SMCP – San Mateo County Parks
SMP- Smoke Management Plan
SMRCD – San Mateo Resource Conservation District
SOD – Sudden Oak Death
SPR – Standard Project Requirement
SRA – State Responsibility Area
TMP – Traffic Management Plan
TPA – Trees Per Acre
UCWRIC - University of California Weed Research & Information Center
USFWS – United States Fish and Wildlife Service
VMT – Vehicle Miles Traveled
WLPZ – Watercourse and Lake Protection Zone
WUI – Wildland Urban Interface

Mission Statement

The San Mateo County Parks Department (“Department”) manages 24 parks throughout San Mateo County. Core to our mission – *through stewardship, the San Mateo County Parks Department preserves the County’s natural and cultural treasures, and provides safe, accessible parks, recreation, and learning opportunities to enhance the community’s quality of life* – a key priority of the Department is stewardship and management of our park natural resources.

1. Introduction to the Project-Specific Analysis

Historically, many areas within the Santa Cruz Mountains have been affected by prolonged and extensive drought, intensive land use and development, wildfire suppression, forest pathogens, and climate change. Regional forest ecosystems, as a result, have developed impairments to their native conditions that often perpetuate a decline in forest health and resiliency. These impairments may involve excessive or overly dense conifer regeneration, the encroachment of invasive or competing vegetation, displacement of existing dominant vegetation, or overly dense post-wildfire regeneration. Through adaptive and careful management of these sensitive resources, recognizing the sources of their impaired existing conditions and potential future threats to forest health, natural systems within the Santa Cruz Mountains may be restored to promote ideal ecological habitat dynamics and maintain a resilient future in an era of unprecedented, large-scale disturbance regimes.

In the fall of 2020, the CZU Lightning Complex Fire (CZU Fire) burned 86,509 acres and decimated 1,490 buildings across the Santa Cruz Mountains. The fire displayed extreme behavior and consumed significant vegetation within Santa Cruz and San Mateo Counties. Pescadero Creek County Park (PCCP) experienced variable burn severities because the park was on the northern bounds of the fire while CZU Fire was pushed south by the strong prevailing Northwest winds. Old Haul Road, PCCP's main access road that bisects the park, served as the northern terminus of the CZU Fire for fire suppression resources. Fire intensity across the landscape was variable based on weather, slope, vegetation communities and suppression strategies. Parts of the fire footprint that experienced low to moderate severities retained vegetation that was either unconsumed or partially consumed. In areas burned at high severity, vegetation communities may require decades to recover to pre-fire conditions and biodiversity levels, or they may undergo significant changes, potentially resulting in vegetation type conversion.

In 2022, San Mateo County Parks (SMCP) in collaboration with Auten Resource Consulting developed a Climate Habitat Resiliency Plan¹ (CHRP) for PCCP. Within the CHRP, priority treatment units are identified to address the goals of landscape scale forest management to reduce the vertical and horizontal continuity of fuels, reduce dead, dying diseased and dense vegetation and introducing low intensity disturbance into these wildlands.

1.1 CEQA Compliance

The California Board of Forestry and Fire Protection (Board) certified the Program Environmental Impact Report (PEIR) for the California Vegetation Treatment Program (CalVTP) in December 2019. The PEIR evaluates the potential environmental effects of implementing vegetation treatments throughout the State Responsibility Area (SRA) in California. The document presented here is a Project-Specific Analysis (PSA) and addendum to the PEIR (PSA/Addendum). The PSA process was designed during PEIR preparation for use by many state, special district, and local agencies to help increase the pace and scale of vegetation treatments and allow for California Environmental Quality Act (CEQA) compliance.

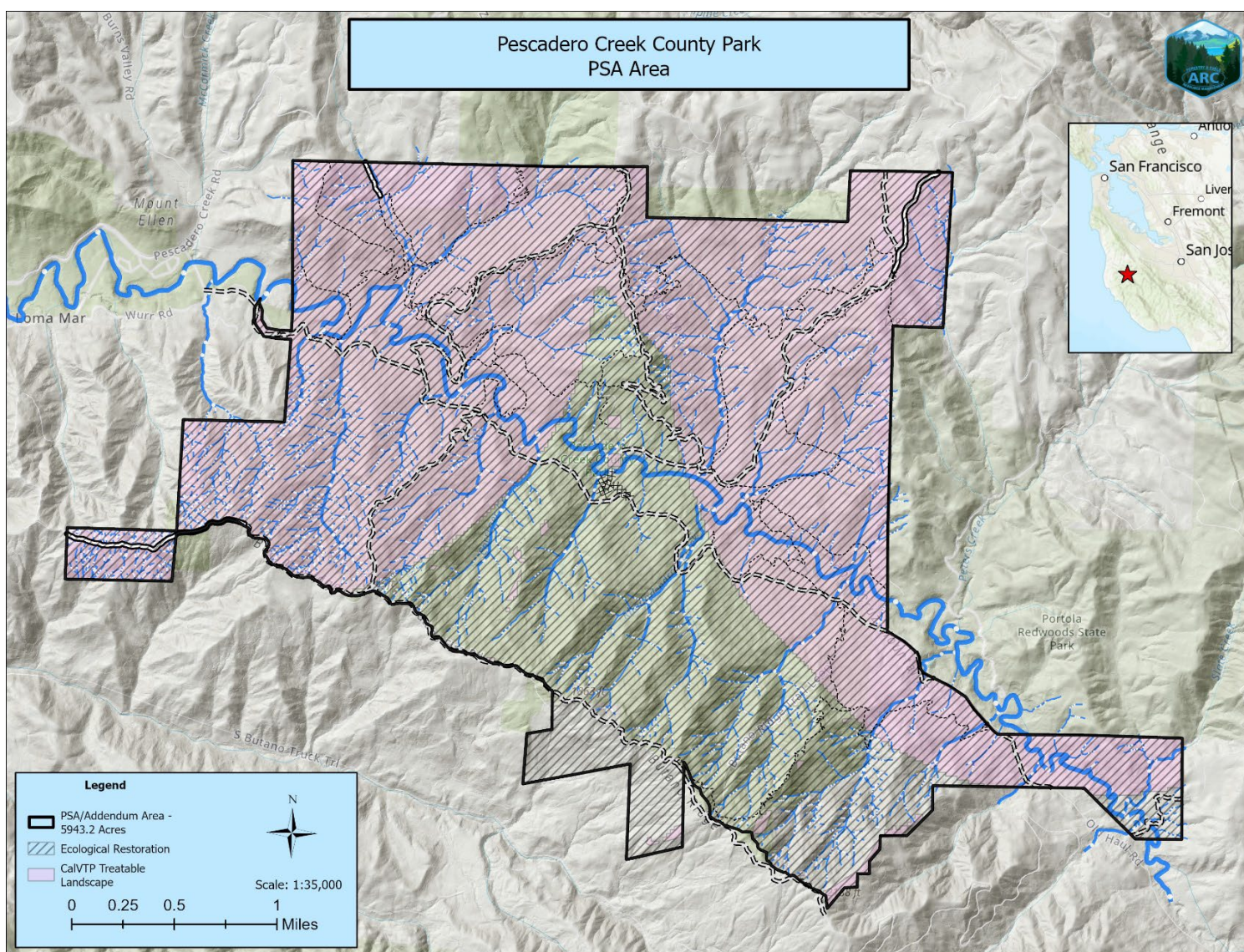
A portion of the proposed project treatment area extends outside of the CalVTP treatable landscape. In total, the area within the treatable landscape constitutes 3,956.2 acres out of a total 5,943.2 acres for the

¹ [Pescadero Creek Park Climate & Habitat Resiliency Plan \(2022\)](#)

entire project area. Areas within the project boundary that are located outside of the treatable landscape are 1,986.86 acres. Per the PEIR, if 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.

Table 1. PSA/Addendum Area Treatable Landscape Acreages

CalVTP Treatable Landscape Acreage by Treatment Area Footprint			
	Area Within the CalVTP Treatable Landscape	Area Outside of the CalVTP Treatable Landscape	Total Area
Treatment area Footprint	3956.4 Acres	1986.9 Acres	5943.2 Acres



CH 11/08/2024

Map 1: PSA/Addendum Area Location Map with Treatment Type (map figure not to scale)

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 SRA, vegetated landscapes dominated by tree, shrub, or grass plant communities, and applicable treatment types (WUI fuel reduction, fuel breaks, and ecological restoration). Due to the rudimentary nature of this process, high-resolution mapping was not achieved, resulting in the omission of landscapes from the treatable area that would have otherwise been included.

Following certification of an EIR, proposed project modifications or changes in surrounding conditions may necessitate an addendum to the EIR, consistent with CEQA Section 21166 and CEQA Guidelines Sections 15162, 15163, 15164, and 15168. This is valid if these changes or revisions would not result in any new or substantially more severe significant environmental impacts than were covered in the PEIR. This PSA covers areas outside of the CalVTP treatable landscape, which constitutes a project change or revision to the project, compared to the certified PEIR. Each impact analysis in the PSA includes additional specific justification for inclusion of areas outside of the treatable landscape, which supports an addendum to the CalVTP PEIR.

1.2 Proposed Project Revisions

A few Standard Project Requirements (SPRs) that are proposed for revision within this CalVTP PSA/Addendum project are: SPR CUL-4, SPR GEO-1, SPR HAZ-1, and SPR HYD-4.

SPR CUL-4 Revision

SPR CUL-4, as presented in the PEIR, requires an archaeological survey report for all treatment activities and treatment types, including treatments that do not result in ground disturbance or other risk of impact to archaeological or historical resources (e.g., manual treatments and herbicide application).

SMCP proposes to conduct archaeological surveys for only for ground disturbing treatment activities. As described in the CalVTP PEIR Section 2.5.2., manual treatments and application of herbicide would deploy less distributive ground treatments and are effectively used in sensitive areas and habitats. Thus, conducting an archaeological survey report for areas designated for manual treatments and herbicide applications would result in unnecessary loss of work time. This revision to SPR CUL-4 would help to prevent unnecessarily slowing down project implementation while maintaining the overall intent of SPR CUL-4 in areas where ground disturbance activities have a higher likelihood to affect archaeological artifacts.

Potential impacts resulting from revisions to SPR CUL-4 are discussed below under Section 4.4 "Archaeological, Historical, and Tribal Cultural Resources." As explained in these sections, the proposed revisions to SPR CUL-4 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. Impacts on other resources would not occur as a result of these revisions, because SPR CUL-4 is not required to reduce environmental effects on any other resources from implementation of the project. The proposed revisions to SPR CUL-4 are shown in underline and strikethrough in the Mitigation Monitoring and Reporting Program (MMRP) (Attachment A).

SPR GEO-1 Revision

SPR GEO-1, as presented in the PEIR, requires suspension of certain treatment activities, including mechanical treatments, herbicide application, and prescribed herbivory during heavy precipitation (i.e., if the National Weather Service forecast is a chance [30 percent or more] of rain within the next 24 hours). As described in the CalVTP PEIR, mechanical treatments, herbivory, and herbicide application conducted during precipitation events can result in soil disturbance, erosion, increased runoff, soil destabilization, and water quality impacts.

SMCP proposes to suspend mechanical treatments (1) if it is raining, (2) soils are saturated, or (3) soils are wet enough to be compacted by mechanical treatment activities and to suspend herbicide application if the National Weather Service forecast is a "chance" (30 percent or more averaged over each hour) of rain within the next operational day's 12-hour period between 6:00 a.m. and 6:00 p.m. This project does not propose the use of prescribed herbivory. In the coastal region of the project area, forecasts often include a chance of rain; however, precipitation sometimes does not materialize. Therefore, suspension of mechanical treatment activities in these cases could result in unnecessary loss of work time. Without this revision to SPR GEO-1, the project objectives may not be achieved. Additionally, defining the 12-hour window that will be used to calculate the next day's average precipitation potential will ensure a consistent methodology for the implementing entity.

Potential impacts resulting from revisions to SPR GEO-1 are discussed below under Section 4.5 "Biological Resources," Section 4.6 "Geology, Soils, Paleontology, and Mineral Resources," and Section 4.10 "Hydrology and Water Quality." As explained in these sections, the proposed revisions to SPR GEO-1 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. Impacts on other resources would not occur as a result of these revisions, because SPR GEO-1 is not required to reduce environmental effects on any other resources from implementation of the project. The proposed revisions to SPR GEO-1 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR HAZ-1 Revision

SPR HAZ-1, as presented in the PEIR, requires that the project proponent inspect all equipment for leaks prior to the start of treatment activities and everyday thereafter until equipment is removed from the site, and any equipment found leaking be promptly removed from the treatment area.

SMCP proposes to promptly stabilize any equipment found leaking and fix it on-site or remove the leaking equipment from the treatment area. This gives the project proponent the flexibility to fix equipment on-site if feasible and continue treatment rather than requiring all leaking equipment be removed. This would help to prevent unnecessarily slowing down project implementation while maintaining the overall intent of SPR HAZ-1 to minimize hazardous material releases in treatment areas from equipment use.

Potential impacts resulting from revisions to SPR HAZ-1 are discussed below under Section 4.3 "Air Quality," Section 4.9 "Hazardous Materials," and Section 4.10 "Hydrology and Water Quality." As explained in these sections, the proposed revisions to SPR HAZ-1 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. Impacts on other

resources would not occur as a result of these revisions, because SPR HAZ-1 is not required to reduce environmental effects to any other resources from implementation of the project. The proposed revisions to SPR HAZ-1 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR HYD-4 Revision

SPR HYD-4, as presented in the PEIR, requires that the project proponent establish Watercourse and Lake Protection Zones (WLPZs) on either side of Class I, Class II, Class III, and Class IV watercourses, as defined by 14 CCR Section 916 .5 of the California Forest Practice Rules.

SMCP proposes to establish the WLPZs for only the watercourses within 300 feet to the manual, mechanical, prescribed pile burning, and herbicide treatments. This would limit the amount of time spent by the project proponent identifying and delineating WLPZs, as well as limit the amount of high visible flagging used throughout the park. This would help ensure that all WLPZs within a treatment area are recently flagged, without unnecessarily slowing down project implementation to establish all WLPZs throughout the entire park, while maintaining overall intent of SPR HYD-4 to prevent degradation of watercourses during implementation of manual, mechanical, and prescribed pile burning.

Potential impacts resulting from revisions to SPR HYD-4 are discussed below under Section 4.5 "Biological Resources," Section 4.6 "Geology, Soils, Paleontology, and Mineral Resources," Section 4.9 "Hazardous Materials," and Section 4.10 "Hydrology and Water Quality." As explained in these sections, the proposed revisions to SPR HYD-4 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. Impacts on other resources would not occur as a result of these revisions, because SPR HYD-4 is not required to reduce environmental effects to any other resources from implementation of the project. The proposed revisions to SPR HYD-4 are shown in underline and strikethrough in the MMRP (Attachment A).

1.3 Problem Statement

During August of 2020, PCCP experienced the largest and most severe wildfire in its 50-year history and perceivably within the time of modern records. The high intensity nature of the CZU Fire produced significant mortality across the park. Nearly 2,839 acres of PCCP were affected, accounting for approximately half the property area. Primary causes of the high severity within PCCP relate to the extensive accumulation and continuity of horizontal and vertical vegetative fuels present within the park, as well as similar conditions present on adjacent landscapes that provided a catalyst for extreme fire behavior. These conditions are the product of frequent, low severity ecological disturbance regimes being virtually absent from the landscape including indigenous burning practices, an era of fire suppression, and a loss of large grazing undulates. In general, fires observed in well-spaced stands of moderate to large diameter trees typical of old growth, late seral stage redwood forests result in lower mortality rates and a much lower risk of destructive crown fire. Existing conditions at PCCP in areas dominated by overstocked second-growth redwood involve hazardous ladder fuels that are responsible for transporting fire up the boles of trees and ultimately into the crown, increasing the mobility and lethality of fire. Treatments under this plan are designed to reduce and rearrange accumulated vegetative fuels and dense understory components, enhancing the health and resilience of the residual stand while altering the way future fires move across the landscape at PCCP.

1.4 Goal Statement

Goals for implementing the CalVTP are to promote the presence and enhancement of native species, habitats and ecosystems across the landscape which are resilient in the face of disturbance and climate change. These goals were initially outlined in the CHRP for PCCP and include:

- Conserve and protect biodiversity, habitat, wildlife, fisheries, soil, and watershed resources.
- Increase resiliency to disturbance and climate change and reduce catastrophic wildfire in forest stands and associated ecosystems.
- Conduct innovative monitoring, research, demonstrations, and education. Provide an actionable Plan for the Parks Department.

The overarching goals outlined within the CHRP can be accomplished through the implementation of the vegetation related goals outlined below:

- Reduce downed and ladder fuels to reduce the threat of stand-replacing wildfire events and crown fires.
- Increase resiliency to disturbance and climate change and reduce catastrophic wildfire in forest stands and associated ecosystems.
- Maintain a resilient landscape mosaic of redwood, mixed conifer, and hardwood dominant stands, rich in biodiversity, habitat complexity, and proportionate levels of native regeneration.
- Create a mosaic with heterogeneity of stand age class and density, to provide a representation of varied and late seral stages in the forest stand.
- Promote carbon sequestration through stand thinning and promoting tree maturity and late seral stages.
- Promote the development of functional old growth habitat characteristics observed in late-successional stands.
 - Promote stand characteristics suitable for marbled murrelet (*Brachyramphus marmoratus*) nesting habitat.
- Reintroduce fire to the landscape to assist in promoting a healthy ecosystem and reducing fuel loads.
- Control and/or eradicate exotic invasive species by utilizing Integrated Pest Management (IPM) practices.

These goals will be achieved through disturbance regimes that are ecologically appropriate within each site-specific plant community. Treatment activities providing disturbance include mechanical mastication, manual treatments, prescribed fire, prescribed herbivory, and in instances, herbicide.

1.5 Project Site

PCCP in San Mateo County, California is a publicly accessible, 5,943-acre park located in the north-central region of the Santa Cruz Mountains. PCCP is used for general recreational purposes throughout the year such as hiking, camping, backpacking, horseback riding, cycling, and wildlife viewing. Historically, Pescadero Creek and its coastal tidal estuary served as a key source of food for geographically affiliated indigenous groups. As European settlers and post-gold rush developments emerged in the area by the early 1860s, the town of Pescadero became a major town and transportation hub, ultimately perpetuating impacts to nearby resources. As the lumber industry grew and demand for building materials continued to

increase into the 20th century, the forestlands within and surrounding the Pescadero-Butano Watershed were subject to intensive logging practices that drastically reduced old growth forest characteristics along the coast. PCCP is bisected by Pescadero Creek which, from a resource management standpoint, has traditionally divided the park into two subsets – the north and south side of the property. Today, the park is widely made up of second-growth redwood, which refers to redwood communities that have developed as resprouts from former old growth stands. Most old growth redwood remaining in the park is north of Pescadero Creek where past logging has chiefly been limited to selection harvests in more recent decades conducted by prior landowners. Douglas-fir, non-forested openings, and hardwood dominant stands are intermixed throughout the park and provide opportunities to maintain an ecological mosaic across the property.

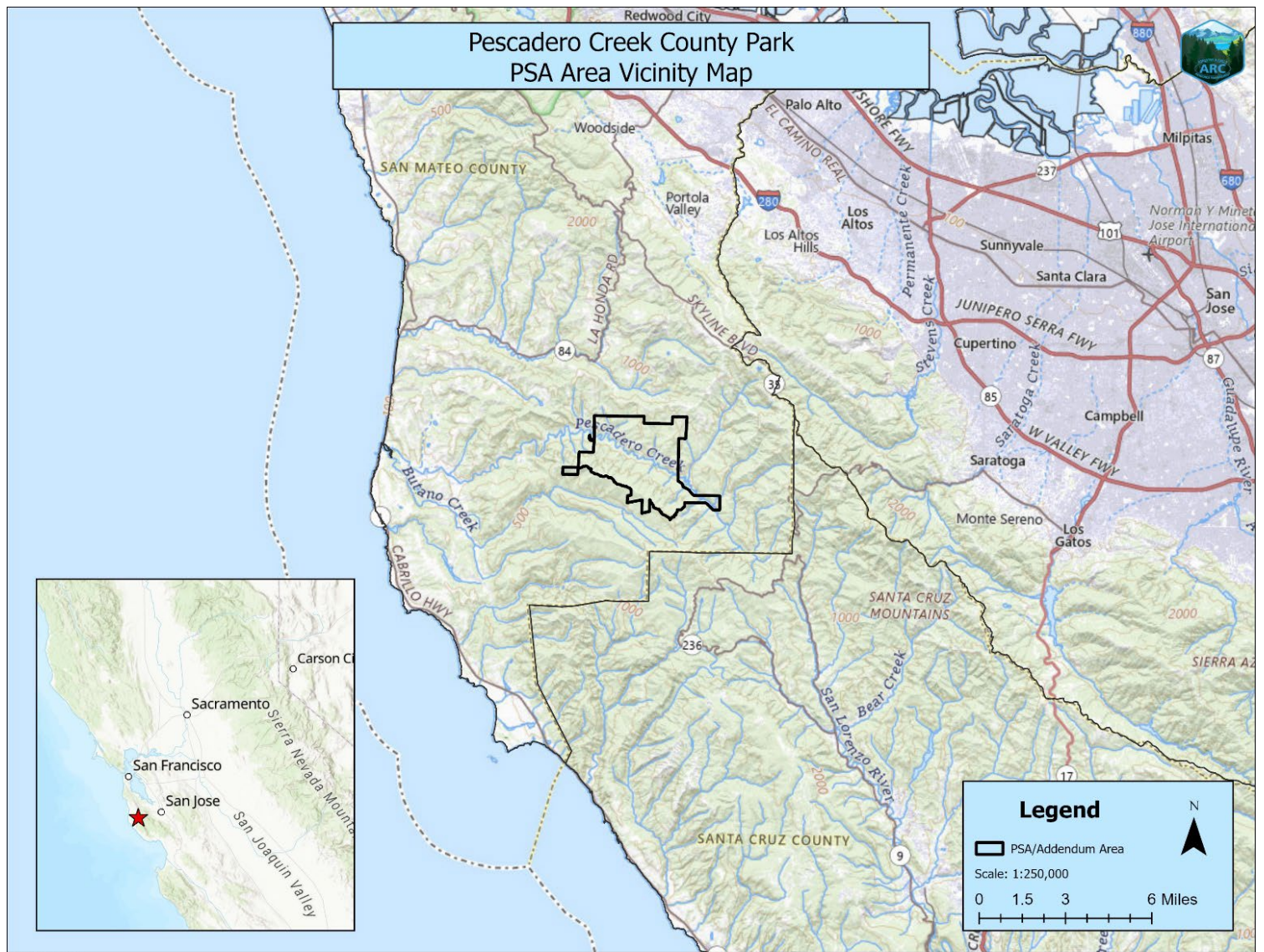
1.6 Project Location

PCCP is a relatively remote property nestled in the Santa Cruz Mountains between Highway 84 and Highway 9 in San Mateo County, California. It lies about 2 miles east of Loma Mar and approximately 10 miles inland from State Route 1 (HWY 1). The park's western entrance on Wurr Road is accessible by traveling about 7.5 miles east from the town of Pescadero along Pescadero Creek Road. The northeastern access point, near Camp Pomponio Road, is reachable from Alpine Road, approximately 6 miles south of La Honda. From Loma Mar, visitors can enter the park by following Pescadero Creek Road to Wurr Road, where the Hoffman Creek trailhead connects to Old Haul Road, the park's primary route running parallel to Pescadero Creek. Additionally, the park can be accessed from Camp Pomponio Road at the Tarwater Trailhead, also located off Pescadero Creek Road.

Public lands adjacent or in proximity to the park include Sam MacDonald Park, Memorial County Park, Portola Redwoods State Park, Butano State Park, and Big Basin State Park. Private lands are interspersed to the north and comprise most of the bordering lands to the southwest. The coordinates for the approximate centroid of the park are 37.2605°N, 122.2471°W.

PCCP is owned, managed, and maintained by the San Mateo County Parks Department (SMCP). Forested lands adjacent to PCCP are owned and managed by various public and non-governmental entities including, but not limited to, California State Parks, Midpeninsula Regional Open Space District, Peninsula Open Space Trust, Big Creek Lumber, and Redtree Properties LP.

The total project area evaluated in the CalVTP PSA encompasses the entire 5,943.2 acres of PCCP.



CH 10/30/24

Map 2: PCCP Project Vicinity Map (map figure not to scale)

1.7 Pescadero Creek County Park Ecosystem Conditions

Dense second-growth redwood stands occupy much of the south portion of the property, predominantly at lower elevations within the various drainages that exist in this area of the park as tributaries to Pescadero Creek. Extensive land use practices, namely intensive logging that occurred within the park during the late 1800s through the mid-20th century along with fire exclusion, have resulted in overly dense tree and shrub regeneration that prevent light penetration to the forest floor and promote high levels of competition. In conjunction with climatic and social changes to historic natural fire regimes and cultural burning practices, the absence of frequent, low-intensity disturbance regimes has encouraged unhealthy forest conditions, horizontal and vertical fuel loading, and public safety hazards where dead, dying, or diseased trees pose a threat to park visitors and staff. The forestlands throughout PCCP have been largely unmanaged in recent years apart from general maintenance around campsites and existing road infrastructure. The 2020 CZU Fire, while promoting beneficial ecological disturbance in certain areas, primarily burned at low to

moderate severity across the lower elevations of the park. This did result in high tree mortality in some locations, leaving behind standing dead trees and dead vegetation.

Over the next 3 to 5 years, these materials are expected to fall, contributing to an accumulation of dense surface fuels, which could influence future fire behavior. Needle drop from scorched lower canopies following the fire has added fine fuel composition to the forest floor in many parts of the burn area, which would facilitate a low lying, low intensity fire band within a more adequately spaced forest. However, above ground-level vegetation should be selectively treated prior to prescribed fire activities and/or to promote a more resilient environment prior to future natural fire patterns.

Out of the vast majority of PCCP acreage, approximately 96% is forested. The 2020 CZU Fire caused high levels of mortality on the southern side of Pescadero Creek, predominantly at higher elevations along Butano Ridge and its lateral ridges that divide the tributaries on the north-facing aspect of the park. Within the basin of the Class II drainages, where a large portion of the dense second-growth redwood stands occur, mortality is chiefly limited to understory trees and shrubs. While the consumption of some small diameter trees helped to reduce the number of trees per acre, many dead and dying trees of all sizes, predominately tanoak, remain, adding to similar vertical and horizontal fuel arrangements in the future without treatment.

Small grassland and shrub communities exist in the northeast portion of the park where encroachment by predominately Douglas-fir has been observed. Douglas-fir seeds are carried by wind to occupy areas of the forest floor and forest edge to regenerate. Seedlings are shade intolerant, resulting in poor Douglas-fir regeneration within forests that exhibit dense understories and more successful regeneration occurring in light gaps or along the forest edge, or vegetative transition zone. Douglas-fir regeneration is often prolific in vegetative transition zones between forests and grasslands or shrublands, where seedlings have ample light and reduced competition to support growth. Seedlings established in grasslands and shrublands continue to grow and overtop the existing vegetation expanding the forest footprint. Without treatment to kill off Douglas-fir seedlings, the succession process repeats itself, furthering the encroachment of conifers into grassland and shrubland communities. Douglas-fir encroachment poses the threat of the loss of oak woodland, grassland, and shrubland communities and their associated ecosystem services over the landscape.

2. Project Description

The project intends to enhance the health and vitality of plant communities throughout PCCP by implementing ecologically restorative forest health treatments. These efforts aim to reduce competition among plant species, enhance biodiversity by introducing moderated sunlight through treatments, support mixed-species regeneration, and strengthen climate resilience, all while reducing the severity and risk of wildfires. Additionally, the spread of invasive species within the park will be addressed through treatment activities that align with the CalVTP PEIR.

PCCP's southern region was significantly affected by the CZU Fire, where suppression efforts successfully stopped the fire's advance along Old Haul Road. Four years later, downed woody debris of various sizes has accumulated, posing a potential risk for increased fire intensity. In contrast, the northern portion of the park has seen limited management, leading to the growth of dense understory brush and thick duff layers on the forest floor.

Across the park's 5,943 acres of dynamic forest types, some stands have been altered by recent disturbances, while others remain relatively untouched. This variability highlights the need for targeted ecological restoration treatments to improve forest health across the diverse landscape. The proposed treatments will not only enhance forest health and vigor but also reduce the spread and intensity of potential wildfires, particularly along access roads. By creating opportunities for access, these treatments will aid suppression crews in utilizing backburns or other fire management techniques at critical points.

Treated areas will also help slow or increase the potential to mitigate the spread of fires, protecting the park's forest resources and infrastructure. Additionally, these efforts will create continuity with other treated areas across neighboring properties. With nearby campgrounds in PCCP, Memorial County Park, Sam McDonald County Park, and Portola Redwoods State Park serving as potential ignition points for wildfires due to various park uses and activities, reducing fire risks in these areas is paramount.

The CalVTP PSA CEQA process ensures that forest health treatments and ongoing maintenance within the park boundaries comply with the PEIR, allowing for sustained, long-term management without a sunset date unless forested conditions change significantly. The primary objective of this restorative project is to remove dead and diseased trees, manage the underlying brush, and increase the spacing of trees. These efforts will improve forest health, increase climate resilience, and reduce wildfire risk. All work will be conducted using a science-based, environmentally sensitive approach to protect the natural environment.

Initial treatments will involve both mechanical and manual activities, potentially opening opportunities for the future use of prescribed fire. The use of prescribed burning techniques would responsibly reintroduce an important ecological component to the forest, promoting a comprehensive balance across the landscape. While the first phase of the project is well-defined, future maintenance will be dynamic, adapting to evolving ground conditions to ensure long-term forest health.

2.1 Project Justification

The need for implementing this project is grounded in the objectives of the CHRP, reinforced by observations around PCCP, including post-fire Forest Trend Plot (FTP) monitoring. Additionally extensive FTP monitoring data from California State Parks Forest Management Strategy² (FMS) largely focused in the neighboring Big Basin Redwoods State Park (BBRSP) that also burned in the 2020 CZU Fire. Together, these sources emphasize the importance of vegetation management for enhancing resilience to disturbance, mitigating climate change impacts, and reducing the risk of catastrophic wildfire within forest stands and their associated ecosystems.

Observations from the CHRP's *Forest Stand Structure and Fire History* section indicate that open-structured old-growth redwood (OGRW) stands are more conducive to low to moderate-severity fires due to the separation of tree crowns. In contrast, dense forest stands are more prone to high-severity fires because of fuel connectivity on the forest floor, close tree spacing, and accumulation of dead material that contributes to fuel loads.

Regional data from the FMS underscores these findings and provides additional key insights:

- Larger-diameter trees with fewer trees per acre (TPA) suggests increased resilience to wildfire.

² [Forest Management Strategy: Big Basin, Año Nuevo, and Butano State Parks \(2024\)](#)

- High TPA among smaller-diameter trees (≤ 12 inches) suggests increased susceptibility to fire mortality, including mortality in a component of larger trees within the stand.
- Higher severity burns experience increased tree mortality across all forest types and all diameters. These areas, among other burn severities, include a significant regenerative basal sprouting response from coastal coppice sprouting species.

The FMS findings further show that high fire severity, slope position, and ladder fuel connectivity are correlated with increased mortality within OGRW areas. Without intervention, similar stands within PCCP could experience parallel outcomes. However, targeted vegetation treatments that reduce TPA in smaller diameter classes and maintain spatial separation between trees could mitigate these risks and improve overall forest resilience.

2.2 Treatment Description

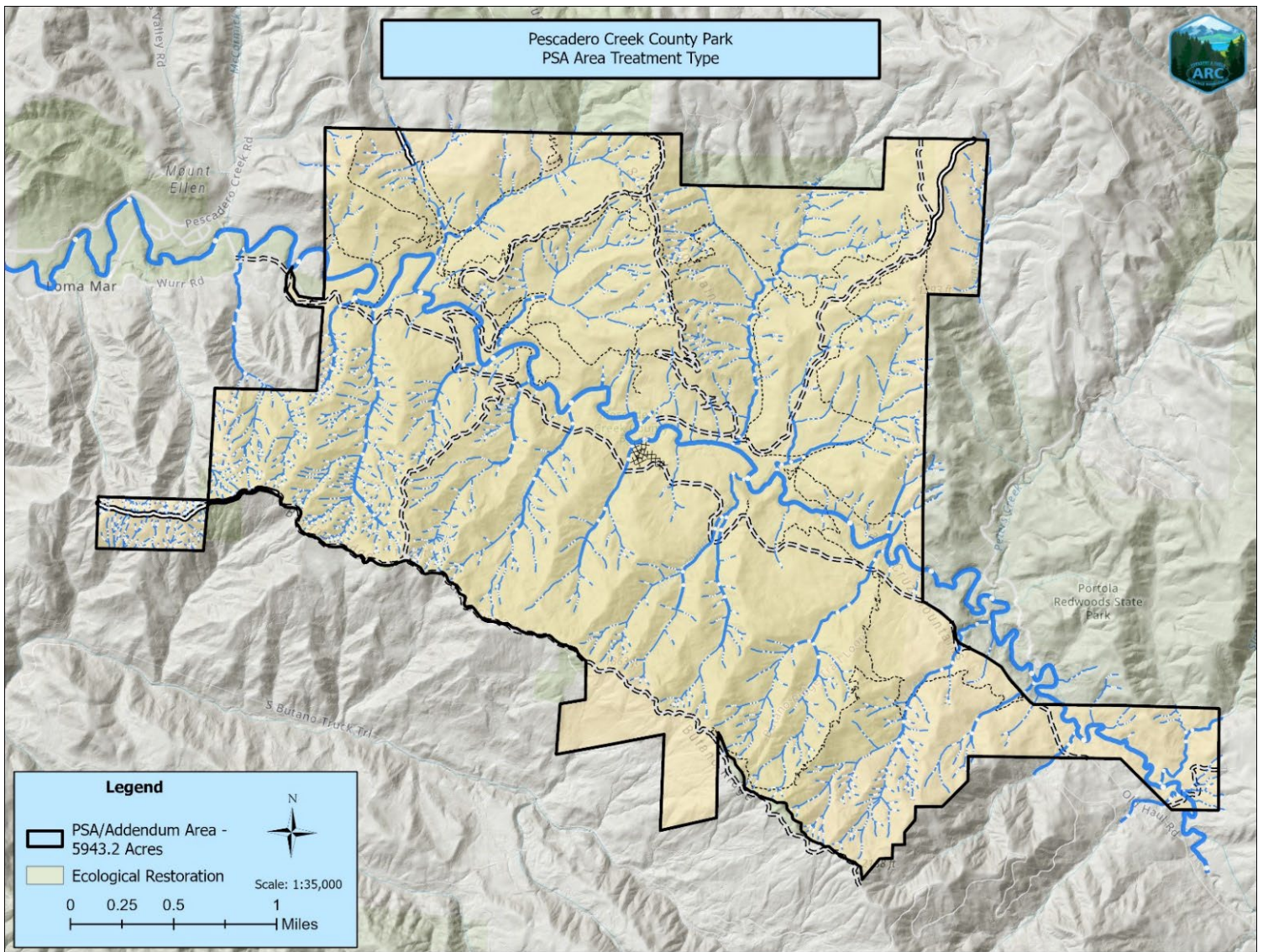
The following section outlines the landscape-level ecological treatment approach to attaining the project goals and objectives, and descriptions of the associated treatment activities being considered under this PSA. Treatment activities will be implemented on a site-specific basis, as needed, to achieve the ecologically restorative intent of this project. It can be expected that not every acre on PCCP would be treated. Instead, treatments are strategically placed across the landscape where they can generate positive return to ecological restoration, recognizing that it is simply not viable to conduct treatments across the entire landscape relative to resource sensitivity and other operational factors. Each treatment activity may be implemented exclusively or in combination with other activities. Maintaining mobility and treatment options is imperative to achieving the long-term objectives and adaptive management methodologies associated with this project.

2.3 Treatment Types

Table 2. Proposed CalVTP Treatment Activities

CalVTP Treatment Type	CalVTP Treatment Activities	Treatment Size (acres)	Timing of CalVTP Treatments*
Ecological Restoration	Manual, mechanical (i.e., cutting, mastication, crushing, mowing, and piling), prescribed burning (i.e., broadcast burn, pile burn, and air curtain burn), herbicide, and prescribed herbivory	5943.2	Year-round

*SMCP would only implement prescribed burning during the burn window (typically fall through spring) when environmental conditions (windspeed, weather forecast, fuel moisture) are conducive. Herbicides are also limited to use relative to non-native or invasive species.



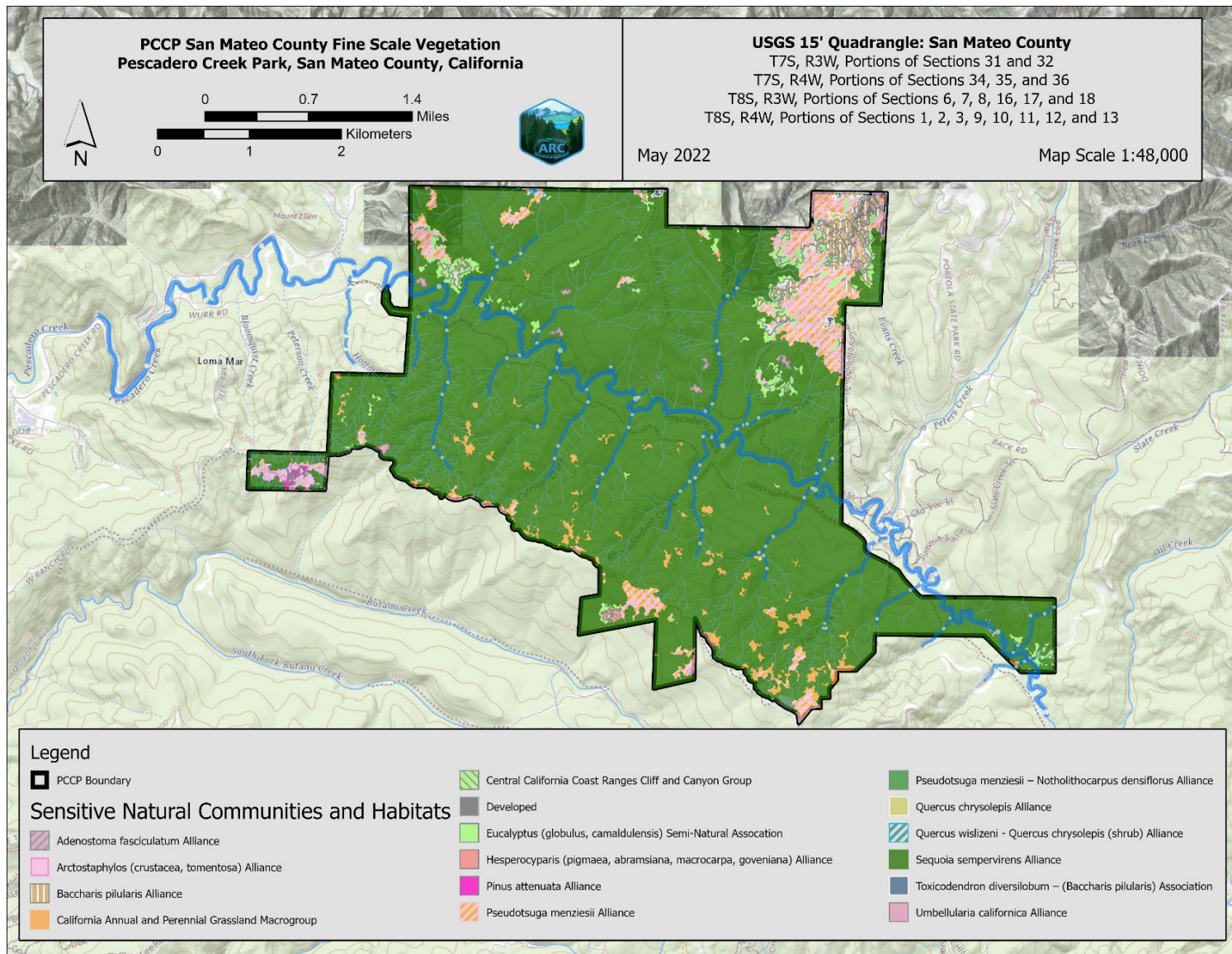
CH 11/08/2024

Map 3: PSA/ Addendum Treatment Type Map (map figure not to scale)

2.3.1 Ecological Restoration

The project proposed an Ecological Restoration treatment type to restore ecosystem processes native stand conditions, and ecosystem resilience through the removal of dead, dying diseased and overstocked trees, and dense understory fuels in areas generally outside of the Wildland-Urban Interface (WUI), or areas integrated into WUI fuel reductions, as defined by the CalVTP PEIR (CalVTP Final PEIR Volume II Section 2.5.1, pages 7 & 15-17). Mechanical and manual treatments, along with pile and broadcast burning, will modify existing fuels to reduce the risk of stand-replacing fire events, while also supporting habitat quality and natural, low-intensity fire regimes. In addition, thinning small to medium diameter trees can increase the amount of space and resources such as water, nutrients and available sunlight to residual trees. Promoting growth of larger trees separates the continuity of fuels within the forest, increases individuals that are resistant to disturbance (i.e., fire, pests, drought), and promotes diversity within the understory. Additionally, the landscape across the Santa Cruz Mountains has deviated away from the historic fire regime that took place during precolonial indigenous times. A study conducted in the

northeastern Santa Cruz Mountains found that the fire return interval (FRI) to the redwood forest type in this area ranges from approximately 10 to 16 years (Stephens & Fry, 2005). The CZU Fire offers an opportunity to restore the park's historic disturbance frequency through prescribed broadcast burning or by using mechanized and hand treatments to prepare the landscape for more predictable prescribed fire management.



Map 4. PSA/Addendum Vegetation Type Map (map figure not to scale)

2.4 Treatment Activities

Treatment activities within the project are mechanical treatments, manual treatments, prescribed burning, herbicide application, and prescribed herbivory. These treatments are described in further detail below, remaining consistent with the CalVTP.

Table 3. Proposed CalVTP Treatment Activities

CalVTP Treatment Activity	Equipment Used for Treatments	Typical Duration of Treatments	Maximum Treatment Size (acres)
Manual Treatment	Chainsaws, hand saws, brush cutters, pole saws, hand lopping tools, shovels, weed wrenches, weed whips, machetes, pruning shears, other hand tools and hand-operated power tools, and passenger vehicle(s)/all-terrain vehicle(s).	1 week to 6 months	Up to 5943.2
Mechanical Treatment	Tracked or wheeled masticators (i.e., skid steers or excavators with masticating heads), feller bunchers, tracked and tow behind chippers, bull dozer or tractor with brush rake or ball and chain crushing apparatus, loader with bucket and thumb attachments to pile material for burns or chipping, wheeled skidders, fire suppression vehicles and equipment (i.e., water apparatus, hand tools, etc.), and passenger vehicle(s)/all-terrain vehicle(s), and other mechanized equipment.	1 week to 1 year	Up to 5943.2
Prescription Burning – Broadcast Burning*	Drip torch/ terra torch, aerial ignition devices, water tender, excavator, fire suppression vehicles and equipment (i.e., water apparatus, fire engines, bull dozers, tractors, skidders, mowers, loader, excavator, hand tools, etc.), and passenger vehicle(s)/all-terrain vehicle(s).	1 day to 2 weeks	Up to 5943.2
Prescription Burning – Pile Burning	Drip torch/ terra torch, aerial ignition devices, water tender, excavator, fire suppression vehicles and equipment (i.e., water apparatus, fire engines, bull dozers, tractors, skidders, mowers, loader, excavator, hand tools, etc.), air curtain burner, carbonizer, and passenger vehicle(s)/all-terrain vehicle(s).	1 day to 1 month	Up to 5943.2
Herbicide Application	Batch truck, application devices (i.e., backpack sprayer, manual brush applicator), and passenger vehicle(s)/all-terrain vehicle(s).	1 day to 2 weeks	Up to 268
Prescribed Herbivory	Electric fencing, 10 to 500 head of livestock, water trailer, herding animals (i.e., dogs), and passenger vehicle(s)/all-terrain vehicle(s).	1 day to 1 week	Up to 5943.2

2. 4. 1 Mechanical Vegetation Treatment

Mechanical vegetation treatment involves the use of motorized equipment to remove dense stands of understory vegetation and ladder fuels, including small diameter trees, to maintain a healthy overstory. This treatment activity is considered within the scope of the PEIR. Equipment used includes, but is not limited to, tractors, skidders, feller bunchers, chippers, and masticators. Up to two crews of approximately two to 25 members may operate at the same time across the project area, with treatments typically requiring seven days to several months to complete. In ecological restoration treatments, equipment operates on slopes less than 50%.

Mechanical treatments target live trees up to 16 inches in diameter including, dead, dying, and diseased. Understory vegetation, brush, and shrubs under the drip lines of trees may be cut and masticated, leaving root systems intact for resprouting and maintaining fungal assemblages as much as possible. Understory debris is chipped and scattered on-site within the treated areas or hauled off-site, following SPR UTIL-1 and best management practices for reducing the spread of invasive species, pests, and disease.

Mechanized treatment involves using motorized equipment instead of hand tools. These machines include wheeled tractors, crawler-type tractors, or specially designed vehicles with attached implements designed to cut, compact, or mulch target vegetation. Equipment can range in weight from 15,000 to 60,000 pounds, with the weight evenly distributed through the large surface area of the equipment tracks or large tires, resulting in 4-8 pounds per square inch (PSI). For reference, a human produces approximately 8 PSI, a mountain bike tire produces 30 PSI, and a car runs about 35 PSI.

The selection of mechanical treatment and associated equipment is based on factors such as vegetation characteristics, seedbed preparation and revegetation needs, topography and terrain, soil characteristics, climatic conditions, and a comparison of the improvement cost to the expected increase in productivity or public and/or private benefit. Mechanical treatments can be used to create a desired stand structure and composition without using prescribed burning or in areas where there are risks and uncertainties with prescribed burning. Mechanical treatment methods include mowing, masticating, grubbing, and chipping. For projects in forested landscapes, mechanical treatments can create and maintain a desired forest understory condition. This method is effective for removing dense stands of vegetation and is typically used in shrub and tree fuel types. Some mechanical equipment can masticate (mulch) or lop and scatter vegetative debris concurrently with vegetation removal. Mastication involves using a large, mechanized device for chopping, used in areas with shrubs and trees to break the fuel pattern and decrease combustibility by placing fuels on the ground. Mechanical treatment may be the best tool to restore forest overstory over time (Collins, et al., 2014). Mechanical treatments are appropriate where a high level of control over vegetation removal is needed, such as near residential areas, communities, or in sensitive habitats, and are often used instead of prescribed burning or herbicide applications.

To implement mechanical treatments, one hand crew of approximately five to 20 workers may aid equipment operators in achieving treatment specifications. The duration of mechanized treatments varies greatly depending on treatment area conditions (i.e. density of tree and shrub fuel types or slope) and the acreage to be treated. Under this project, mechanical treatments could be implemented over as little as a

1-week to 18-month time period. Costs for mechanical treatments vary depending on the preexisting vegetation conditions. Prices per acre can cost between 2,500 dollars to 5,000 dollars to the acre.



Figure 1. Butano State Park in San Mateo County, CA. Before and after mechanical and manual vegetation treatments (photo credit – David Cowman – San Mateo Resource Conservation District)

2. 4. 2 Manual Vegetation Treatment

Manual vegetation treatment involves using hand tools and hand-operated power tools to manage herbaceous and woody plants. This includes activities such as thinning trees with chainsaws, loppers, or pruners; selectively removing brush to favor desired species; and pulling, grubbing, or digging out unwanted plants to prevent regrowth. Masticated biomass or chips can also be placed around desired vegetation to suppress competition.

Accumulations of vegetation debris created by manual treatments may be disposed of by mechanical applications such as chipping or mulching, prescribed pile or broadcast burning, or lopped and left in place to promote wildlife refugia and maintain vegetative complexity on the forest floor. Manual treatments are particularly well-suited for working around sensitive habitats such as riparian zones, wetlands, and archaeological resources, or areas where prescribed fire or herbicides are not appropriate. They are also favored around structures, for creating fire control lines inaccessible to machinery, and in areas difficult to reach with vehicles or equipment.

Manual vegetation treatments follow the same general prescriptions as mechanized treatments and may utilize chainsaws, loppers, and pruners as described in the CalVTP PEIR. Manual treatments can occur on steeper slopes than mechanical treatments. They are effective for removing dense stands of understory vegetation and ladder fuels to maintain a healthy overstory component. Manual treatments can also focus on reducing the density of second-growth redwoods to support the health and resiliency of the forest. Crews commonly use manual treatments to create fire lines, facilitating future prescribed broadcast burns. To implement manual treatments, one or two crews of approximately three to 20 members would use hand tools and hand-operated power tools to cut, clear, and/or prune trees, herbaceous vegetation, and woody shrubs. The duration of manual treatments varies greatly depending on treatment area conditions (i.e. density of tree and shrub fuel types or slope), the acreage to be treated, and the size of the hand crew. Under this project, manual treatments could be implemented over as little as a 1-week to an 18-month time period. Costs can range from \$8,000 to \$18,000 per acre. Despite these challenges, manual treatments

remain a crucial tool in vegetation management, particularly in areas where other methods are not feasible.



Figure 2. UC Santa Barbara, Kenneth S. Norris Rancho Marino Reserve, Cambria, CA. Handwork in a shaded fuel break.

2. 4. 3 Prescribed Burning

Prescribed burning involves intentionally setting fire to vegetation under specific conditions of fuel, weather, and other variables to achieve resource management objectives within a predetermined area. There are two main types of prescribed fires: broadcast burning and pile burning.

Broadcast Burning

Broadcast burning spreads fire continuously through a fuel bed, which consists of slash, surface litter, duff, or other biomass. The boundaries of a broadcast burn are often defined by existing roads, trails, control lines, or distinct environmental changes. This method is utilized to reduce biomass and fuel loading while promoting the ecological benefits of native flora. Broadcast burns are applicable to grasslands, woodlands, and forest vegetation types.

Prescribed low to moderate intensity surface fires can control vegetation by enhancing the growth, reproduction, or vigor of certain species. They also manage fuel loads and maintain targeted vegetation communities. Extensive or mature shrubs may be trimmed or removed manually by hand crews or mechanical equipment before burning. Vegetation may also be pretreated with herbicides to kill the aboveground portions and allow them to dry before burning.

Several factors are considered when designing and implementing a prescribed burn: risk to structures and property, land use, environmental impacts, weather conditions, soil stability, slope and aspect, soil type, vegetation types and density, fuel moisture content, time of year, fire return interval, and the efficacy of alternative methods. Historic fire return intervals (FRI) vary considerably across California. For example,

studies in the geographic region of the Santa Cruz Mountains indicate an FRI of 12 years based on data from old-growth redwood forests like those north of Pescadero Creek (Stephens & Fry, 2005).



Figure 3. Mount Madonna Center, Watsonville, CA. Broadcast burn following preliminary treatment.

Burning can occur year-round but is typically done in late spring when the ground is still wet, or in fall or winter when precipitation is imminent, and plants have completed their yearly growth cycle, and moisture content has declined. Timing considerations include public safety, animal and plant reproduction cycles, the natural fire return interval for the ecosystem, and the drying of annual grasses in May. In brush or chaparral communities, fall burning may not be desirable due to the potential for high fire intensities. Some chaparral species benefit from spring burns for seed germination, while others benefit from fall sprouting (Beyers & Wakeman, 1997).

Broadcast burning can be implemented through several methods. One approach is to conduct burns through a Prescribed Burn Association (PBA), which is primarily volunteer-based and rely on strong community participation. When working with a PBA, CAL FIRE is often involved, typically providing a tanker and crew on-site. CAL FIRE also offers “no-cost” contracts for prescribed burns, covering liability in these cases. Working with CAL FIRE tends to be the most cost effective. Finally, broadcast burns can be conducted by private contract crews, which handle all aspects of the burn process, including developing burn plans, obtaining air quality permits, prepping plots, managing ignition, and performing mop-up operations. While private crews offer a convenient, comprehensive service, they are generally a costly option for broadcast burns.

Prescribed broadcast burns typically last approximately 1 day up to 1 week where the average number of workers on a prescribed burn is approximately 45. Equipment used for a prescribed burn include between 2 and 10 engines, up to two bulldozers and bulldozer transports, helitorch, masticators or track chippers (to create fuel break perimeter prior to broadcast burns), and an onsite water truck for fire suppression. While other treatment costs are often calculated per acre, broadcast burn costs vary significantly based on

ecosystem conditions. For example, burns in grasslands or oak savannas would be less expensive than in dense redwood forests due to differences in preparation requirements, fuel complexity, and burn duration.

Pile Burning

Pile burning involves burning biomass that has been manually gathered into piles by hand crews or equipment such as skid steers, tractors, bulldozers, or excavators. This method is used in forested understory or in areas with little to no live overstory, including areas that have experienced previous wildfire or other thinning treatments. Pile burning reduces the amount of surface and ladder fuels following treatment activities. Piles are created and burned in areas with adequate canopy clearance, at least 20 feet from Class III watercourses and outside of watercourse and lake protection zones (WLPZ) for Class I and Class II watercourses.



Figure 4. Soquel Demonstration State Forest, Santa Cruz County, CA. Prescribed Pile Burning in process.

Pile burning may occur over a 1-week to a 1-month period where the number of people onsite can range from 5-30. Equipment used for pile burning fluctuates on the conditions of the forest, specifically the moisture content of the vegetation and saturation of the soil. Equipment could include 2-5 type 6 engines and an onsite water truck for fire suppression, to all-terrain vehicles (ATVs) and quads built out with water tanks and suppression tools. Depending on the pre-existing conditions of the forest, treated previously or untreated. Pile burning can range from 2,500 dollars to 15,000 dollars to the acre which includes preparing the burn plan, piles, ignitions and mop-up.

2. 4. 4 Herbicide Application

Herbicides will be used sparingly following initial and maintenance treatments to address invasive or noxious plant species. These species are likely to include French broom (*Genista monspessulana*) and Cape Ivy (*Delairea odorata*). Additional species may be targeted throughout the duration of the project and maintenance activities as needed. The primary focus of herbicide use will be used to minimize the ecological impact of invasive plant populations and prevent the spread and growth of these species within

the treatment area. Treatment may occur on up to 268 acres of PCCP but only about 1% of that infested area will be treated during one time due to the precision nature of spot treatment.

Following the guidelines outlined in the CalVTP PEIR (Volume II, Section 2, Pages 27-28), herbicide application will be conducted exclusively at ground level through spot application. Vehicles, such as all-terrain vehicles and tractors, may be used to mobilize herbicide or equipment into treatment units. Herbicide application methods, directed by a licensed Agricultural Pest Control Advisor (PCA), may include using a backpack hand-applicator or spray bottle, wick (painted or wiped on), hand wand (sprayed on), or hand-applied pellets to the ground surface.



Figure 5. Mount Madonna County Park, Watsonville, CA. Herbicide treatment applied directly to blue gum eucalyptus stump to prevent re-sprouting.

Herbicides may also be applied to trees around the circumference of the trunk on the intact bark (basal bark), to cuts in the trunk or stem (frill or "hack and squirt"), to cut stems and stumps (paint on cut stumps), or injected into the inner bark with a hypo-hatchet. All herbicide applications must comply with the standards set by the U.S. Environmental Protection Agency (EPA), the California Environmental Protection Agency, and the Department of Pesticide Regulation (DPR).

Typically, herbicide application would be carried out by two to four workers and would comply 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. Aligning with SMCP routine maintenance and IPM practices, the project proponent will comply with all relevant laws and regulations governing the use of herbicides to ensure safe and effective treatment. Herbicide application under this project is likely to occur within a 1-week time period. Costs Typically range from 500-1,000 dollars per acre.

2. 4. 5 Prescribed Herbivory

Prescribed herbivory is the utilization of domestic livestock to accomplish specific and measurable vegetation management objectives. These objectives include removing biomass (fine fuel loads), reducing the populations of specific plant species, slowing the re-establishment of shrubs on burned or mechanically thinned sites, and improving the plant community structure for wildlife habitat values. This

method is often used for hazardous fuel reduction in wildlands and to enhance the condition of forests, rangelands, and watersheds.

Cattle, sheep, and goats are the most common animals used for this type of treatment due to their prevalence and ease of management. These animals consume smaller diameter vegetation, commonly herbaceous and small woody species, which range from 1/4th to 1 inch in diameter (known as 1- and 10-hour fire fuels). The type of vegetation targeted should align with the animals' feeding habits. Goats are generalists and consume vegetation up to woody shrubs, sheep graze selectively on both herbaceous and woody vegetation, while cattle are best suited for grasslands and generally avoid woody species.

Prescribed grazing can enhance wildlife habitat in addition to controlling fire fuel loads. For example, cattle and sheep grazing in the spring and early summer can thin understory forbs and grasses, reducing competition for light, nutrients, and water, thereby promoting the growth of desirable shrub species. This, in turn, increases vegetative output for winter browsing by deer and other wildlife.



Figure 6. Santa Barbara County, CA. Prescribed herbivory utilizing sheep.

When implementing prescribed herbivory, the needs of the livestock and other multiple-use objectives for the area must be considered. A herder, fencing, mineral blocks, and watering sites may be required to keep the animals within the desired area. Portable electric fencing is typically used for this purpose. It's important to note that many weed species are less palatable than desired vegetation, which can lead to overgrazing of the latter. Additionally, some weeds may be toxic to certain livestock, influencing the choice of treatment.

Proper management of livestock is crucial for the success of prescribed herbivory. Consulting with a Certified Rangeland Manager (CRM) is advised, as they have expertise in factors affecting treatment effectiveness. These include the palatability of plant species to the available animals, the influence of terrain, water availability, and environmental conditions on animal behavior, and other complicating factors such as predators, public access, and the logistics of managing animals on-site.

Prescribed herbivory offers benefits that other vegetation treatments cannot. Herbivores act as self-replicating processors that transform abundant plant matter into their sustenance, yielding a multitude of environmental benefits. These benefits include reduced fire risk, improved soil health, control of invasive species, and the creation of thriving habitats for other wildlife. In essence, they function as self-sustaining masticators, maintaining a balanced environment. Compared to other treatments, noise produced from prescribed herbivory is less than other treatments that are reliant on engines which can be an added benefit when treating near public facilities or other noise sensitive spaces. Additionally, grazing animals are able to consume vegetation on slopes steeper than what mechanized equipment can operate or gain access through.

Costs for prescribed herbivory are dependent on the size of the treatment area, the amount of herd mobilization needed between grazing units, and the size of the herd of animals; With a larger area comes lower costs. Price per acre can be from 800 dollars to 2,500 dollars.

2.5 Vegetation Treatment Prescriptions

Forest management strategies are techniques or practices that humans can interact with the forest to maintain or improve health and resiliency of the site through conducting activities such as prescribed burning, invasive species management, understory fuel reduction or through silvicultural techniques.

2.5.1 Ecological Restoration Treatment Type - Mechanical Prescription

The ecological restoration treatment type prescription considers guidance for the outcome of these treatment activities representatively pictured in Figure 7, referencing "Wildlife-Friendly Fuels Reduction in Dry Forest of the Pacific Northwest – Woodland Fish & Wildlife – 2016," (Strong & Bevis, 2016), a document supported by multiple Pacific Northwest state agencies and federal agencies including the US Fish and Wildlife Service.



Figure 7. Example of Ecological Restoration Treatment Type Outcomes

The goal of the ecological restoration treatment type prescription is to maintain habitat function for wildlife, including special-status species, and sensitive natural communities, with the following mechanical treatment prescription:

- Retain healthy trees less than 16 inches DBH with the goal of achieving a 10-20 foot spacing.

- Stands made up of only trees less than 16 inches DBH will be thinned to a spacing of approximately 10-20 feet apart to disconnect horizontal and vertical fuel continuity.
- Retain existing standing habitat trees, consisting of standing dead, snags, or live trees with dead portions of stems or branches, to provide habitat for wildlife (e.g., birds and beneficial insects), and provide a food source for birds and other wildlife. Where snags do not present a safety hazard, approximately 4-6 foraging snags (< 14 inches DBH) and 1-2 cavity nesting snags (> 16 inches DBH) will be retained per acre.
- Retain healthy hardwoods and conifers greater than (>) 16 inches with appropriate canopy spacing to achieve site goals (e.g., reduce fuel connectivity or increase the amount of sunlight on the forest floor), except where conifers are converting grassland, shrubland, or hardwood forest habitat types through shading.
 - In which case, conifers up to 36 inches DBH may be removed to restore ecosystem conditions.
- Retain downed woody debris in strategic locations to maintain forest floor complexity, with a preference for larger, complex logs, totaling approximately 10 tons per acre, while reducing fuel connectivity.
 - Target retention for downed woody debris may also be considered as four larger logs (large end greater than 16 inches DBH, approximately 15 feet long).
- Prune lower branches of trees 6-15 feet but, not more than 33% of the tree's crown where feasible.
 - Conifer limbs may be pruned with a masticator, but pruned ends shall have a smooth appearance with no frayed material visible especially in areas frequented by the public. Note: This may require follow-up handwork.
 - In areas where damage to secondary lateral hardwood limbs is expected due to mechanical mastication, hardwoods shall be pruned by hand to facilitate access for mastication equipment and minimize damage to hardwoods species. It is expected that the amount of handwork will be minimal and focused on a few key areas occupied by larger coast live oaks that will need hand pruning treatment to reduce the spread of infection to the remaining hardwood stand. SMCP will provide instruction on hardwood pruning techniques.
- Retain micro-stands of untreated oak trees with a cluster radius of approximately 15-25 feet (30-50-foot diameter), spaced approximately 75-100 feet apart, where feasible, with consideration given to steepness or whether this retention could exacerbate fire behavior, or fire behavior proximal to key infrastructure and assets.
- Maintain vegetation outside of the drip line of retained trees and shrubs that may be cut and masticated leaving root systems intact for resprouting to achieve a horizontal crown separation of approximately 50-100 feet between stands and individual plants depending on site specific characteristics, with approximately 10 percent retention per acre (unless other retention standards are required pursuant to CalVTP SPRs and mitigation measures (MM) such as for sensitive natural communities), and whether this retention could exacerbate fire behavior, or fire behavior proximal to key infrastructure and assets. Patches, or clumps, will be retained across the treatment area to

create mosaic pattern of pockets of vegetation to provide quality habitat and browsing (Strong & Bevis, 2016).

- Retain chaparral vegetation at a minimum of approximately 35 percent and a target of 50 percent in any chaparral-dominated area within a treatment polygon in a mosaic pattern of patches or shrub islands, to maintain a varied level of habitat continuity throughout the polygon.
- Maintain root systems intact, where feasible, to allow for resprouting; mechanical treatments will target above-ground vegetation with the intent of keeping masticating heads out of duff layers and minimizing direct disturbance to subsurface soil layers, allowing intact root systems to resprout and minimizing impacts to burrowing wildlife.
- Chipped biomass should generally average 3 inches in depth and not exceed approximately 6 inches.
- Chipped residual material should be minimized in forest gaps or openings where increased biodiversity of herbaceous understory regeneration is more likely.
- Mechanical treatments would not be conducted within wet meadows or WLPZs. Some vegetation may be removed by reaching an excavator arm into a wet meadow or WLPZ such that no ground disturbance would occur within wet meadows or WLPZs.
- Equipment movement may operate on slopes approximately less than 50%.
- Dead, dying, and diseased trees can be removed.
- Burn units can be prepared for prescribed fire.

2. 5. 2 Ecological Restoration Treatment Type - Manual Prescription

The ecological restoration treatment type prescription considers guidance for the outcome of these treatment activities representatively pictured in Figure 7, referencing “Wildlife-Friendly Fuels Reduction in Dry Forest of the Pacific Northwest – Woodland Fish & Wildlife – 2016,” a document supported by multiple Pacific Northwest state agencies and federal agencies including the US Fish and Wildlife Service.

The goal of the ecological restoration treatment type prescription is to maintain habitat function for wildlife, including special-status species, and sensitive natural communities, with the following manual treatment prescription:

- Retain healthy trees less than 16 inches DBH with the goal of achieving a 10-20 foot spacing.
 - Stands made up of only trees less than 16 inches DBH will be thinned to a spacing of approximately 10-20 feet apart to disconnect horizontal and vertical fuel continuity.
- Retain existing standing habitat trees, consisting of standing dead, snags, or live trees with dead portions of stems or branches, to provide habitat for wildlife (e.g., birds and beneficial insects), and provide a food source for birds and other wildlife. Where snags do not present a safety hazard, approximately 4-6 foraging snags (< 14 inches DBH) and 1-2 cavity nesting snags (> 16 inches DBH) will be retained per acre.
- Retain healthy hardwoods and conifers greater than (>) 16 inches with appropriate canopy spacing to achieve site goals (e.g., reduce fuel connectivity or increase the amount of sunlight on the forest floor), except where conifers are converting grassland, shrubland, or hardwood forest habitat types through shading.

- In which case, conifers up to 36 inches DBH may be removed to restore ecosystem conditions.
- Retain downed woody debris in strategic locations to maintain forest floor complexity, with a preference for larger, complex logs, totaling approximately 10 tons per acre, while reducing fuel connectivity.
 - Target retention for downed woody debris may also be considered as four larger logs (large end greater than 16 inches DBH, approximately 15 feet long).
- Retain micro-stands of untreated oak trees with a cluster radius of approximately 15-25 feet (30-50-foot diameter), spaced approximately 75-100 feet apart, where feasible, with consideration given to steepness or whether this retention could exacerbate fire behavior, or fire behavior proximal to key infrastructure and assets.
- Prune lower branches of trees 6-15 feet but, not more than 33% of the tree's crown where feasible.
 - Punned ends shall have a smooth appearance with no frayed material visible especially in areas frequented by the public.
 - Pruning of hardwoods is expected to be minimal and should focus on key areas occupied by larger coast live oaks that need hand pruning treatment to reduce the spread of infection of the remaining hardwood stand. SMCP will provide instruction on hardwood pruning techniques.
- Maintain vegetation outside of the drip line of retained trees and shrubs that may be cut and masticated leaving root systems intact for resprouting to achieve a horizontal crown separation of approximately 50-100 feet between stands and individual plants depending on site specific characteristics, with approximately 10 percent retention per acre (unless other retention standards are required pursuant to CalVTP SPRs and MM such as for sensitive natural communities), and whether this retention could exacerbate fire behavior, or fire behavior proximal to key infrastructure and assets. Patches, or clumps, will be retained across the treatment area to create mosaic pattern of pockets of vegetation to provide quality habitat and browsing (Strong & Bevis, 2016).
- Retain chapparral vegetation at a minimum of approximately 35 percent and a target of 50 percent in any chapparral-dominated area within a treatment polygon in a mosaic pattern of patches or shrub islands, to maintain a varied level of habitat continuity throughout the polygon.
- Maintain root systems intact, where feasible, to allow for resprouting; allowing intact root systems to resprout and minimizing impacts to burrowing wildlife.
- Chipped biomass should generally average 3 inches in depth and not exceed approximately 6 inches.
- Chipped residual material should be minimized in forest gaps or openings where increased biodiversity of herbaceous understory regeneration is more likely.
- Manual treatments would be conducted within wet meadows or WLPZs.
- Dead, dying, and diseased trees can be removed.
- Burn units can be prepared for prescribed fire.

2.5.3 Herbicide

- Herbicides may be used to prevent the spread of invasives that aggressively resprout after cutting (i.e. broom, acacia, eucalyptus).
- All herbicide applications will be applied directly by hand via cut stump, spot or foliar spray.
- Herbicides will not be applied within designated Watercourse and Lake Protection Zone (WLPZ) buffers, Class II watercourse buffers, or within 50' of any residential or recreational structure.
- Pesticides will be applied by or under the direction of a pest control advisor (PCA).
- As an alternative to herbicide on resprouting trees, stumps may be covered with black plastic to prevent resprouting.

2.5.4 Prescribed Burning

- Prescribed burning will be implemented utilizing predetermined burn plans under the guidance of a Burn Boss.
- Broadcast, pile burning, or air curtain burning will be utilized as a means of biomass removal and to reimplant appropriate fire regimes, and reduce continuity of dead, downed and overly dense fuels.
- Accelerants may be utilized to facilitate ignition of fuels.

2.5.5 Prescribed Herbivory

- Prescribed herbivory may be used in open grasslands as well as forested areas.
- Grazing animals that could be used include but are not limited to sheep, goats, and cattle.
- Consulting with a Certified Rangeland Manager (CRM) is advised when prescribed grazing is being considered as a treatment.

2.6 Biomass Treatment

Vegetation removed during the implementation of the proposed treatments would primarily be processed using the following biomass disposal methods, with estimated percentages provided for initial treatments and analysis purposes (a percent of biomass to be treated through each processing method is estimated for initial treatments and analysis purposes):

- Masticating (~45 percent of biomass): Vegetative debris would be removed and placed on the ground concurrently with vegetation removal and the biomass remaining after mastication would be no more than 6 inches in depth on average.
- Chipping (~20 percent of biomass): Materials may be chipped, broadcast, and spread throughout treatment areas in a manner that does not exceed an average depth of approximately 3 inches and not exceed 6 inches. Material may be chipped in place or into a van to be brought to a different location within the PSA/Addendum area or to be hauled off site for donation to willing recipients, as outlined in the accompanying waste discharged plan. Chipped residual material should be minimized in forest gaps or openings where increased biodiversity of herbaceous understory regeneration is more likely.
- Lop and Scatter (~10 percent of biomass): Cut vegetation would be scattered within the treatment area.

- Crushing (~5 percent of biomass): Vegetation may be crushed or compacted by equipment within the treatment area.
- Piling and Burning (~10 percent of biomass): Pile burning may be used to dispose of slash, and chipped and masticated materials. Piling would not occur in wet meadows or within WLPZs. Piles will not exceed 20 feet in length, width, or diameter and will average 6 feet in length, width, and diameter.
- Air Curtain Burner and Carbonization (~5 percent of biomass): Through use of an air curtain burner or carbonator.
 - Curtain Burner or Carbonator – Cut material may be incinerated using a curtain burner or carbonator. These shipping container sized machines can be placed in large open areas cleared of vegetation, or along roads.
 - The depth of biochar and ash will not exceed 4 inches at any location within the project area. If it is not feasible to distribute biochar and ash within the treatment area in this way, biochar may also be hauled off-site for beneficial use at agricultural or other facilities in the area. Multiple air curtain burners could be operated simultaneously as part of the proposed project. A burner requires a crew of two to three people per burner and operating multiple burners next to each other would not necessarily require additional people. Air curtain burners have been designed to consume biomass quickly and efficiently with a substantial reduction in smoke.
- Biomass hauling (~5 percent of biomass): Cut vegetation may be chipped into a chip truck, chip van or similar vehicle and hauled elsewhere in the park, to adjunct farms/ranches, or disposal sites within a proximity.
 - Decked for ecosystem restoration – Boles (logs) of cut trees may be skid, hauled, and decked to be used for other habitat restoration projects such as stream/watercourse restorations.
- Invasive plant and noxious weed biomass would be treated onsite to eliminate seed and propagules or would be disposed of offsite at an appropriate waste collection facility to prevent re-establishment or spread of invasive plants and noxious weeds. Invasive plants and noxious weeds would not be chipped and spread, scattered, or mulched on site.

2.7 Treatment Maintenance

To maintain effectiveness, most treatments require ongoing maintenance, although the intervals can vary significantly. For vegetation types on PCCP, an initial mechanical or manual treatment may be followed by prescribed burning if it aligns with the natural fire return interval. If it is decided by the project proponent and qualified professionals that treatment goals were not achieved through implementation and the treatment outcome did not achieve project objectives, they may provide substantial evidence to retreat outside natural fire return intervals. These maintenance intervals are influenced by vegetation life forms, landscape factors (e.g., climate and soil types affecting plant regrowth), and activity type. Vegetation communities are dynamic, so implementation of treatment activities should adapt to system changes over time and space requiring the flexibility to evaluate and treat changing systems through the PSA. Maintenance approaches, such as mechanical, manual, prescribed burning, herbicide application, and prescribed herbivory, will be adjusted based on real-time monitoring of regrowth and site conditions, attempting to replicate natural disturbances to achieve the objectives of this PSA.

Pursuant to SPR BIO-5, all treatments and the maintenance treatment interval will be designed to maintain habitat function of the specific chaparral vegetation alliance being treated and to avoid type conversion of chaparral. As a result, retreatment is generally anticipated to occur between two and 10 years following initial treatments in common vegetation types that are not sensitive natural communities or sensitive habitats (e.g., wetland, riparian, chaparral). Maintenance treatments would generally be at lower intensity and scale than initial treatments. Prior to implementing maintenance treatments, the project proponent will determine the natural fire return interval of the habitat(s) to be retreated.

Prior to implementing a maintenance treatment, the project proponent will verify that the expected site conditions as described in the PSA/Addendum are present in the treatment area. As time passes, the continued relevance of the PSA/Addendum will be considered by the project proponent in light of potentially changed conditions or circumstances. If environmental conditions evolve or project approaches change to the degree that the project proponent finds new or substantially more severe impacts may occur, the project proponent will determine whether a new PSA/Addendum, PSA update, or other environmental analysis is warranted.

2.8 Guidance for Actions Following PSA Approval

General Actions to Implement Treatment Activities

The purpose of the list of General Actions to Implement Treatment Activities is to provide guidance to the implementing entity to ensure that all steps necessary to commence treatments described in the PSA/Addendum are complete prior to operations; this list serves as a timeline and checklist that may be applied to each phase of treatment implementation. Some actions listed below will be completed during the development of the PSA/Addendum, while others must be completed in respect to individual implementation periods (i.e., phases of treatments, initial treatments, maintenance treatments). This checklist is intended to be used in conjunction with the MMRP located in Attachment A.

- Protocol-level botanical surveys are complete and sensitive species are flagged (SPR BIO-1, SPR BIO-3, and SPR BIO-7).
- Protocol-level wildlife and nursery site surveys are complete and sensitive species are flagged (SPR BIO-1 and SPR BIO-10).
- The Archaeological Survey Report process is complete and archaeological sites are flagged for avoidance and protection (SPR CUL-4, SPR CUL-5, and SPR CUL-7).
- Burn plan complete – if necessary (SPR AQ-3).
- Smoke Management plan obtained – if necessary (SPR AQ-2).
- Prepare draft treatment operations maps that include, but are not limited to existing roads, existing stream crossings, staging areas, access points, watercourses and other sensitive resources, specify treatment activity areas, and potential unstable areas (SPR AD-2).
- CalVTP PSA noticing requirements to neighbors and other appropriate entities are complete (SPR AD-4, SPR AD-6, SPR CUL-2, SPR HAZ-9, SPR NOI-6, and SPR REC-1).
- Final field verification of treatment units that include flagging all sensitive resources including, but not limited to sample treatment areas flagged for retention, access points, staging areas, property lines where necessary, watercourse and lake protection zones, unstable areas, and existing stream crossings.
- Begin contract bid process and conduct bid walk with contractors explaining the treatment prescription and associated activities. Show sample treatment areas.
- Pre-treatment activity surveys are complete and sensitive resources have been flagged (SPR BIO-7 and SPR BIO-10).
- Nesting bird surveyors are under contract and ready to conduct surveys (SPR BIO-12).
- Environmental awareness training and cultural resource training are complete with contractors and treatment operations begin (SPR BIO-2 and SPR CUL-8).

- Supervision of contractors occurs consistently throughout project implementation.
- Implementation meetings occur 2-4 times a month to keep track of operations and ensure appropriate sensitive resource protection.
- Roads and other appropriate infrastructure are closed out with necessary erosion control measures as winter approaches (SPR GEO-5).
- Roads and other appropriate infrastructure are checked during the winter-period to ensure that no erosion issues are occurring as a result of treatment operations (SPR GEO-4).

3. Environmental Checklist

VEGETATION TREATMENT PROJECT INFORMATION

1. Project Title: Pescadero Creek County Park *Climate and Habitat Resiliency Plan Vegetation Treatment Project*

2. Project Proponent Name and Address: County of San Mateo – Parks Department,
455 County Center, 4th Floor,
Redwood City, CA 94063-1646

3. Contact Person Information and Phone Number: Hannah Ormshaw, Assistant Director
hormshaw@smcgov.com
(650) 599 – 1377

4. Project Location: Pescadero Creek County Park
9500 Pescadero Creek Rd, Loma Mar, CA 94021
USGS – La Honda Quadrangle, Mindego Hill Quadrangle,
Franklin Point Quadrangle, and Big Basin Quadrangle
Coordinates for the centroid are: 37.2605°N, 122.2471°W
[include county and coordinates; also include cross streets or other major landmark as useful to identify treatment location]

5. Total Area to be Treated (acres) Up to 5943.2 acres

6. Description of Project:

Initial Treatment

Initial treatments would include Ecological Restoration treatments by Manual and Mechanical treatment methods. Additional treatment activities indicated below may be considered to support initial treatments where feasible. See Section 2, Project Description, for additional details.

Treatment Types

- Wildland-Urban Interface Fuel Reduction
- Fuel Break
- Ecological Restoration

Treatment Activities

- Prescribed Burning (Broadcast), 5943.2 acres
- Prescribed Burning (Pile Burning) 5943.2 acres
- Mechanical Treatment, 5943.2 acres
- Manual Treatment, 5943.2 acres
- Prescribed Herbivory, 5943.2 acres
- Herbicide Application, 268 acres

Fuel Type

- Grass Fuel Type
- Shrub Fuel Type
- Tree Fuel Type

Treatment Maintenance

Maintenance treatments should be completed when vegetation conditions, specific to the eco-type, are suitable for re-entry, as determined through ongoing monitoring of the treatment areas over the lifetime of the CalVTP PSA. Responses to initial treatments will vary among eco-types across the landscape.

Treatment Types

- Wildland-Urban Interface Fuel Reduction
- Fuel Break
- Ecological Restoration

Treatment Activities

- Prescribed Burning (Broadcast), 5943.2 acres
- Prescribed Burning (Pile Burning)
- Mechanical Treatment, 5943.2 acres
- Manual Treatment, 5943.2 acres
- Prescribed Herbivory, 5943.2 acres
- Herbicide Application, 268 acres

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.

7. Regional Setting and Surrounding Land Uses:

Physical

The PCCP is a relatively remote property situated between Highway 84 and Highway 9, approximately 2 miles east of the community of Loma Mar and about 10 miles east of State Route 1 (HWY 1) in San Mateo County, California. From the town of Pescadero, the park can be accessed from its western entrance on Wurr Road by traveling east on Pescadero Creek Road for approximately 7.5 miles. The northeastern portion of the park is accessible from Camp Pomponio Road off Alpine Road, about 6 miles south of La Honda. PCCP encompasses approximately 5,943.2 acres and is located in Loma Mar, San Mateo County, California. Adjacent forested landowners to the park's boundary include California State Parks, Midpeninsula Regional Open Space District, Redtree Properties LP, and Big Creek. Pescadero Creek, a class I watercourse, bisects the property. Furthermore, class II and class III watercourses drain the property and converge with Pescadero creek at the bottom of the canyon. The park is open to public recreation including overnight walk-in camping, hiking, horseback riding, and biking.

Vegetation

Vegetation in PCCP is variable dependent of elevation, aspect, and proximity to water. PCCP was logged heavily in the 19th and 20th centuries. Old Growth Redwood was almost completely harvested on the south side of the canyon, while pockets of Old Growth Redwood are still present on the south side because of a more selective harvest. The CZU fire burned through the south side of the canyon at varying intensity eventually being stopped at old haul road. Vegetation alliances that are present throughout the park include redwood alliance, Douglas-fir – tanoak alliance, tanoak alliance, and live oak alliance, as well as portions of mixed chaparral, coastal scrub, and California annual and perennial grasslands. Additionally, riparian alliances follow Pescadero Creek throughout the park.

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

No other public agency approval is required for this project.

- Consult noticing required by the CalVTP was met by submitting a project description, species status list, and pertinent maps to the California Department of Fish and Wildlife (CDFW) during the planning phase of this project on March 14th, 2025 to review. No comments were received by the end of the 30-day comment window on March 27th, 2025.
- Consult noticing required by the CalVTP was met by submitting a project description, species status list, and pertinent maps to the United States Fish and Wildlife Service (USFWS) during the planning phase of this project on Friday, March 14th, 2025. No comments were received by the end of the 30-day comment window on March 17th, 2025.

- Smoke management plans will be prepared for the Bay Area Air Quality Management District, as required.
- Burn permits will be obtained from CAL FIRE and the Bay Area Air Quality Management District, as required.

CAL FIRE – Burn Permit/Plans

The project proponent will develop a burn plan for all prescribed burns using the CAL FIRE burn plan template, incorporating input from a qualified technician or a certified State burn boss. Additionally, a smoke management plan will be submitted to the appropriate air district in compliance with 17 CCR Section 80160. Under this regulation, burns covering less than 10 acres and not conducted near smoke-sensitive areas will not require a smoke management plan unless otherwise directed by the applicable air district, Bay Area Air Quality Management District (BAAQMD). All burning activities will adhere to the burn authorization program of the applicable air district(s) overseeing the treatment area. The project proponent will coordinate with CAL FIRE during the prescribed burn process.

Coastal Act Compliance

- The proposed project is NOT within the Coastal Zone
- The proposed project is within the Coastal Zone (*check one of the following boxes*)
 - A coastal development permit been applied for or obtained from the local Coastal Commission district office or local government with a certified Local Coastal Plan, as applicable
 - The local Coastal Commission district office or local government with a certified Local Coastal Plan (in consultation with the local Coastal Commission district office) has determined that a coastal development permit is not required

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

NAHC notification letters were mailed on February 14th, 2025 using the February 6th, 2025 CAL FIRE Native American Contact List for San Mateo County. NAHC contacts are provided 30 days from the date of mailing to respond to notification letters. Operations will not commence prior to the close of the 30-day response window.

If received, responses to notification letters and associated correspondences will be appended to this PSA.

DETERMINATION (To be completed by the Lead Agency)

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

- I find that all of the effects of the proposed project (a) have been covered in the CalVTP PEIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP PEIR will be implemented. The proposed project within the CalVTP treatable landscape is, therefore, **WITHIN THE SCOPE** of the CalVTP PEIR. For the proposed project areas outside of the CalVTP treatable landscape, no new circumstances have occurred, nor has any new information been identified requiring new analysis or verification. Project changes would not result in any new or substantially more severe significant impacts. **NO ADDITIONAL CEQA DOCUMENTATION** beyond this PSA and Addendum to the PEIR is required.
- I find that treatments in proposed project areas outside the CalVTP treatable landscape do not result in substantial changes in the project, no substantial changes in circumstances have occurred, and no new information of substantial importance has been identified. The inclusion of project areas outside the CalVTP treatable landscape will not result in any new or substantially more severe significant impacts. None of the conditions described in State CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred; therefore, this **ADDENDUM** is adopted to address the project areas outside geographic extent presented in the PEIR.
- 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

5/15/25
Date

Nicholas J. Calderon
Printed Name

Parks Director
Title

San Mateo County Parks
Agency

3.1 Evaluation of Environmental Impacts

1. Refer to the applicable resource analysis section in the CalVTP PEIR for relevant information on each environmental topic.
2. A brief explanation is required for each impact, including impacts that have been identified in the PEIR as well as any “new impacts”.
3. The discussion of each impact identified in the PEIR that is also applicable to the proposed treatment project should generally include the following information:

Briefly describe the impact of the proposed vegetation treatment project.

Summarize the impact as it was presented in the PEIR, including a statement that the impact is covered in PEIR.

Provide evidence that (explain why) the project impact is covered in PEIR, considering whether the proposed treatment is consistent with the treatment types and activities addressed in the PEIR as well as the associated intensity (i.e., duration).

Identify SPRs and MMs applicable to the treatment project.

(If applicable) Explain which components of the MM or SPR would be applied. This circumstance exists if the MM or SPR allows for deviation from requirements (e.g., minimum buffer distances), identification of parameters (e.g., tree size for retention), and determinations of feasibility. A site- and/or treatment activity-specific explanation for the planned deviation, identified parameter, or feasibility determination must be provided in the PSA.

(If applicable) Explain why the impact significance in the PSA is different than that found in the PEIR; substantiate the different (new) significance conclusion.

(If applicable) Explain why MM or SPRs identified for this impact in PEIR do not apply to this project. This circumstance may exist where a PS impact was identified in the PEIR, but the impact severity would be less for the treatment project, or the MM does not otherwise apply.

Once the project proponent has evaluated the environmental effect that may occur, then the checklist answers must indicate whether the impact is:

- (Definitions located in Chapter 3 – “Environmental Settings, Impacts, and Mitigation Measures, 3.1.4 – Terminology Used In the PEIR”)
 - **Less Than Significant (LTS)** - An impact either on its own or with incorporation of SPRs, does not exceed the defined thresholds of significance (no mitigation required), or that is potentially significant and can be reduced to less than significant through implementation of feasible mitigation measures.
 - **Less Than Significant with Mitigation (LTSM)** - An impact was identified within the PEIR which was viewed in totality as potentially significant and/or significantly unavoidable and the mitigation measures and SPRs and MMs provided in the PEIR will be implemented mitigating to a point of less than significance.
 - **Potential Significant (PS)** - An impact treated as if it were a significant impact. “Potentially” is used to convey that not every qualifying treatment will result in impacts to the reasonably maximum degree that they are disclosed in this PEIR.
 - **Potentially Significant and unavoidable (PSU)** - An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level. “Potentially” is used to convey that not every qualifying treatment will result in impacts to the reasonably maximum degree that they are disclosed in this PEIR
 - **Significantly Unavoidable (SU)** - An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level.

- Not applicable (N/A)
4. If the project proponent has determined that a new impact would occur, then the checklist answers for the new impact must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant without the need for mitigation.
 5. "Potentially Significant" is appropriate if there is substantial evidence that a new impact may be significant. If there are one or more "Potentially Significant" new impacts identified, or if any impact would constitute a substantially more severe significant impact than was covered in the PEIR, an EIR is required unless one or more mitigation measures incorporated into the project would mitigate the effects to a point where clearly no significant effect on the environment would occur, in which case an MND would be appropriate. AND could be prepared, if the new impact would be less than significant, or MND, if the new impact could be clearly mitigated to less than significant. The analysis of any new impact to support adoption of an ND or MND, along with the analysis of impacts that are within the scope, would be documented in the PSA checklist. If a later EIR is prepared, it could be limited in its scope to the new significant impact(s) or substantially more severe significant impact(s), with the remainder of the impacts that are within the scope of the PEIR being documented in the PSA checklist and attached to the EIR as an appendix. When preparing any environmental document, the environmental analysis should incorporate by reference pertinent portions of the analysis from the CalVTP PEIR and focus the environmental analysis solely on issues that were not addressed in the CalVTP PEIR.
 6. Project proponents should incorporate into the PSA checklist references to information sources for potential impacts. Include a list of references cited in the PSA and make copies of such references available to the public upon request.

4. Project-Specific Analysis/Addendum

4.1 Aesthetics and Visual Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	LTS	Impact AES-1, pp. 3.2-16 – 3.2-19	Yes	AD-3 AD-4 AES-1 AES-2 AES-3 AQ-2 AQ-3 REC-1	NA	LTS	No	Yes
Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	Yes	AD-4 AES-1 AES-2 AES-3 REC-1	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	NA	NA	NA	No	Yes

¹NA: 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 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact AES-1

Initial and maintenance treatments would include mechanical, manual, herbicide, prescribed burning, and herbivory. The results for these treatments to result in long term degradation of the visual character of the landscape was examined in the PEIR (CalVTP PEIR Volume III Section 3.2.3, Pages 20-22). The project area spans PCCP, a recreational property managed by SMCP, which is utilized for the public for recreation. While there are no public roads that have direct views to treatment areas, they would be apparent to recreationalists would while utilizing fire roads and trails throughout the park. This project implement SPRs AD-3, AES-1, AES-2, AES-3, AQ-2, AQ-3, AD-4, and REC-1 the treatments would be consistent with local applicable plans, policies and ordinances, vegetation will be thinned/feathered for a natural appearance to screen views from treatments, equipment will be staged outside of public view when feasible, recreational users will be notified of any temporary area closures at least two weeks prior to treatment activities, as well as one to three days prior to any prescribed burn activities. Per SPR AQ-2, applying prescribed fire treatments will require a SMP to be submitted to the Bay Area Air Quality Management District in accordance with 17 CCR Section 80160 for burns and not conducted near smoke sensitive areas. Smoke-sensitive areas are where smoke or air pollutants may adversely affect public health or welfare (i.e. schools, hospitals, recreation areas, or population areas). Additionally, a burn plan will be created by a certified state burn boss for all prescribed burns. The listed project specific requirements paired with the goal of creating a healthier resilient forest will make the short-term substantial degradation of a scenic vista, visual character, or damage to scenic resources temporary and less than significant.

PSA Addendum – Impact AES-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside of the treatable landscape; therefore, the short-term aesthetic impact is also less than significant. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AES-2

Initial and maintenance treatments would include mechanical, manual, herbicide, prescribed burning, and herbivory for ecological restoration. The results for these treatments to result in long term degradation of the visual character of the landscape was examined in the PEIR (CalVTP PEIR Volume III Section 3.2.3, Pages 20-22). The project area spans PCCP, a recreational property managed by SMCP, which is utilized by the public for recreation. This project purposes to utilize SPR AD-4, AES-1, AES-2, AES-3, REC-1.

PSA Addendum – Impact AES-2

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside of the treatable landscape; therefore, the long-term aesthetic impact is also less than significant. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AES-3

This impact does not apply to the treatment project, because non shaded fuel breaks are not planned within the project area.

New Aesthetic and Visual Resource Impacts

The proposed treatment within the treatable landscape is consistent with the treatment types and activities analyzed in the CalVTP PEIR. The project proponent has evaluated and considered the site-specific characteristics to determine that the project treatments are consistent with the CalVTP PEIR's environmental and regulatory settings (CalVTP Final PEIR Volume II Sections 3.2.1 and 3.2.2). No changed circumstances would lead to new significant impacts not addressed in the CalVTP PEIR.

PSA Addendum - New Aesthetic and Visual Resource Impacts

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape 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 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 considered in the PEIR. No new impact related to aesthetics and visual resources would occur that is not covered in the PEIR.

4.2 Agriculture and Forestry Resources

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

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
		Potentially Significant	Less Than Significant with Mitigation Incorporated
[identify new impact here, if applicable; add rows as needed]		<input type="checkbox"/>	<input type="checkbox"/>

Impact AG-1

Initial and maintenance treatments would include mechanical, manual, herbicide, prescribed burning, and herbivory treatments for ecological restoration treatment types. The results for these treatments to result in long term degradation of the visual character of the landscape were examined in the PEIR (CalVTP PEIR Volume III Section 3.3.3, pages 6-8).

As outlined in the project description, the project does not propose to remove trees for commercial use. The prescription targets the removal of understory story trees, less than 8 inches DBH. Mid-range diameter trees are also targeted to be removed which are greater than 8 inches in DBH. These small diameter trees are the largest contributors to high forest densities and ladder fuel connectivity increasing high severity fire which left in their current condition will not promote forest health and climate resiliency goals. When removing 1–16-inch diameter trees, the focus will be on the spacing of the residual stand; the removal of trees of Douglas-fir trees up to 36 inches in diameter in areas where these trees are encroaching into oak woodlands, grassland, and shrubland. The proposed treatments will not promote forest conversion or a change in land use.

This treatment prescription will promote beneficial results by improving the health and vigor of the forest and developing stand characteristics that are more resilient to a changing climate and disturbance

regimes. Based on the treatment activities and beneficial results of the proposed project, no forestland, timberland or farmland will be converted, resulting in an impact that is less than significant.

PSA Addendum - Impact AG-1

The inclusion of the land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent present in the PEIR. However, within the boundary of the project area, the existing agricultural resources are essentially the same within and outside of the treatable landscape; therefore, the potential for the treatments to directly result in loss of forest land or conversion of forest land to non-forest use is less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Agriculture and Forestry Resource Impacts

The proposed project treatment is consistent with the treatment and activities that are considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed project and determined that they are consistent with the environmental and regulatory settings stated in the CalVTP PEIR (CalVTP Final PEIR, Volume II, Sections 3.3.1 and 3.3.2). No changed circumstances would lead to new significant impacts that were not addressed in the PEIR.

PSA Addendum- New Agriculture and Forestry Resource Impacts

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape 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 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 considered in the PEIR.

No new impact related to agriculture and forestry resources would occur that is not already covered in the PEIR.

4.3 Air Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	SU	Table 3.4-1; Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	Yes	AD-1 AQ-1 AQ-2 AQ-3 AQ-4 AQ-6	AQ-1	PSU	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 NOI-4 NOI-5	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	Yes	AQ-4	NA	LTS	No	Yes
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	PSU	Section 3.4.2; Impact AQ-4, pp. 3.4-35 – 3.4-37	Yes	AD-4 AQ-2 AQ-3 AQ-6	NA	PSU	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	AQ-1 HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	PSU	Section 2.5.2; Impact AQ-6; pp. 3.4-38	Yes	AD-4 AQ-1 AQ-2 AQ-3 AQ-6	NA	PSU	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant

[identify new impact here, if applicable; add rows as needed]

Impact AQ-1

The potential impact for emissions of criteria pollutants to exceed CAAQS or NAAQS and conflict with regional air quality plans. CAAQS and NAAQS thresholds were examined in the PEIR (CalVTP final PEIR Volume II Sections 3.4.3, Pages 26-33). The proposed treatment, types of equipment, and duration of treatment are consistent with the scope of the PEIR. The proposed treatments include mechanical, manual, prescribed burning, herbicide application and prescribed herbivory. The SPRs that are applicable to this treatment project are AD-4, AQ-1, AQ-2, AQ-3, AQ-4, and AQ-6. SPR AQ-5 does not apply because outcrops of ultramafic rock outcrops are not located in proximity to PCCP. Additionally, no additional known or reported locations of historic asbestos mines, asbestos prospects or other natural occurrences of asbestos are documented within San Mateo County³. MM outlined within the PEIR that have been determined by the project proponent to be feasible and would be implemented to reduce emissions include the use of off-road equipment that meet the EPA's Tier 4 emission standards. Tier 3 models can be used if tier 4's have yet to be produced by manufacturers. To the extent feasible, diesel equipment will use renewable diesel fuel which meets California's low carbon fuel standards and Best Available Control Technology for emissions reductions of nitrogen oxides (NOX) and particulate matter (PM) on equipment. When possible, electric and gasoline power will be substituted for diesel powered equipment. Workers will be encouraged to carpool to the project area where feasible. Based on the implementation of applicable SPRs and MM AQ-1, there would be a reduction in emissions and exposure to potential health effects. However, the amount of reduction resulting from the SPRs and MM cannot be determined, therefore, the potential for impact remains potentially significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, pages 26-33).

PSA Addendum – Impact AQ-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the air quality conditions present and air basin in the areas outside the treatable landscape area essentially the same as those within the treatable landscape; therefore, the air quality impact remains potentially significant and unavoidable as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-2

Use of vehicles during treatment 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, pages 33-34) Diesel particulate matter emissions from the proposed treatments within the scope of the PEIR because the exposure would remain the same as analyzed in the PEIR, and the types and amount of equipment that would be used as well as the duration of the use, during proposed treatments are consistent with those analyzed within the PEIR. Based on the implementation of PSRs applicable to this project, including SPR HAZ-1, NOI-4 and NOI-5, consistency with the PEIR, this impact would remain less than significant.

³ <https://pubs.usgs.gov/of/2011/1188/pdf/Pamphlet.pdf>
DOC. See California Department of Conservation.

PSA Addendum - Impact AQ-2

The inclusion of land in the proposed treatment 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 air quality conditions and sensitive receptors (i.e., exposure potential) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape.

In addition, as described under section 1.2, "Proposed Project Revisions", SMCP proposed to revise SPR HAZ-1, which applies to this impact. SPR HAZ-1 is revised for any leaking equipment to be promptly stabilized, removed from the project area and allowed to be fixed onsite, outside of WLPZs. Proposed revisions to SPR HAZ-1 would not result in any new or substantially more severe effects related to diesel particulate matter and other health risks than what was covered in the PEIR.

Therefore, the air quality impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-3

Initial and maintenance vegetation treatments would involve mechanical treatment activities and vegetation removal that would result in ground disturbance which could expose people to fugitive dust emissions containing naturally occurring asbestos (NOA), if present in soils and people are present within or immediately adjacent to active treatments. The potential to expose people to fugitive dust emissions containing NOA was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, pages 34-35). According to the California Department of conservation and U.S. Geological survey, NOA is not anticipated to occur in the treatment area ⁴. In Addition, the implementation of SPR AQ-4 would minimize dust emissions as a result of the treatment activities and the impact will remain less than significant.

PSA Addendum - Impact AQ-3

The inclusion of land in the proposed treatment 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 air quality conditions and sensitive receptors (i.e., exposure potential) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-4

Prescribed burning in the form of pile and/or broadcast burning during initial and maintenance treatments has the potential to expose people to toxic air contaminants which was examined in the PEIR. The duration and parameters of prescribed burning are within the scope of activities analyzed in the PEIR and will be consistent with parameters imposed by the Bay Area Quality Management District for those impacts analyzed in the PEIR for San Mateo County. Therefore, the potential for exposure to toxic air contaminants is also within the scope of the PEIR. SPRs applicable to these treatment activities include AD-4, AQ-2, AQ-3, and AQ-6. All feasible measures to prevent and minimize smoke emissions and minimize exposure to smoke are included within the SPRs. No additional MM are feasible, this impact would remain significant and unavoidable, as explained in the PEIR (CalVTP Final PEIR Vol II Section 3.4.3, pages 35-37).

⁴ [Areas with potential for naturally occurring asbestos \(arcgis.com\)](https://arcgis.com)

PSA Addendum - Impact AQ-4

The inclusion of land in the proposed treatment 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 air quality conditions present and air basin in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-5

The use of vehicles and mechanical equipment during initial and maintenance treatments has the potential to expose people to odors from diesel exhaust. The potential to expose people to objectionable odors from diesel exhaust if present within or immediately adjacent to active treatment activities. The potential to expose people to objectionable odors from diesel exhaust was examined in the PEIR (CalVTP Final PEIR Volume II section 3.4.3, pages 37-38). The potential impact associated with the release of objectionable odors from diesel exhaust during maintenance treatment is within the scope of the PEIR because treatment activities are consistent with those analyzed in the PEIR. The project will comply with the following SPRs to minimize potential impacts associated with diesel exhaust exposure: HAZ-1 (properly maintain all diesel and gasoline-powered equipment), NOI-4 (stage all equipment as far as possible from noise-sensitive receptors), and NOI-5 (restrict equipment idle time). Based on the implementation of the applicable SPRs and consistency with the scope for the PEIR, this impact remains less than significant.

PSA Addendum - Impact AQ-5

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the air quality conditions, and sensitive receptors present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape.

In addition, as described under section 1.2, "Proposed Project Revisions", SMCP proposed to revise SPR HAZ-1, which applies to this impact. SPR HAZ-1 is revised for any leaking equipment to be promptly stabilized, removed from the project area and allowed to be fixed onsite, outside of WLPZs. Proposed revisions to SPR HAZ-1 would not result in any new or substantially more severe effects related to exposing people to odors from diesel exhaust than what was covered in the PEIR.

Therefore, the air quality impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-6

Prescribed burning in the form of broadcast burning and pile burning has the potential to expose people to objectionable odors, as described in the PEIR (CalVTP Final PEIR Volume II section 3.4.3 pages 38-39). The duration and parameters of the prescribed burn operations and the exposure potential are consistent with the activities analyzed within the PEIR. For this reason, the potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the PEIR.

SPRs that are applicable to these treatment types include AD-4, AQ-1, AQ-2, AQ-3, AQ-6. No additional MM are feasible, and this impact would remain potentially significant and unavoidable, as explained in the PEIR. Based on the implementation of the application SPRs and consistency with the scope of the PEIR, this impact remains potentially significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR Volume II section 3.4.3, pages 38-39)

PSA Addendum - Impact AQ-6

This inclusion of land in the proposed treatment areas that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors in the area outside of the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also potentially significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a sustainable more severe significant impact than what was analyzed in the PEIR.

New Air Quality Impacts

The proposed treatments are consistent with the treatment types and activities analyzed in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the CalVTP PEIR's environmental and regulatory settings (CalVTP Final PEIR Volume II Sections 3.4.1 and 3.4.2).

PSA Addendum - New Air Quality Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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 existing environmental and regulatory conditions pertinent to air quality 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. The impacts associated with the proposed treatment project are consistent with those covered in the PEIR. There are no changed circumstances present that would lead to new significant impacts not addressed in the CalVTP PEIR. Therefore, no new impact related to air quality would occur.

4.4 Archaeological, Historical, and Tribal Cultural Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources	LTS	Impact CUL-1, pp. 3.5-14 – 3.5-15	Yes	CUL-1 CUL-3 CUL-4 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	PSU	Impact CUL-2, pp. 3.5-15 – 3.5-16	Yes	CUL-1 CUL-2 CUL-3 CUL-4 CUL-5 CUL-8	CUL-2	PSU	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	No	Yes
Impact CUL-4: Disturb Human Remains	LTS	Impact CUL-4, p. 3.5-18	Yes	CUL-1 CUL-2 CUL-3 CUL-4	NA	LTS	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Impact CUL-1

Initial and maintenance treatments including manual, mechanical, prescribed burning, and prescribed herbivory have the potential to damage historical resources. The potential for these treatments to cause a substantial adverse change in significance to built historical resources was analyzed in the PEIR (CalVTP Final Vol II section 3.5.3 page 15). The potential to cause disturbance to, or destruction of built structures over 50 years old during implementation of treatment activities is within the scope of the PEIR because other treatment activities and levels of disturbance are consistent with those addressed in the PEIR. SPRs that will be applied including the following: an archeological and historical records search will be conducted (SPR CUL-1), pre-field research will be conducted (SPR CUL-3), archeological surveys of the treatment area will be conducted by a trained professional and/or qualified archaeologist (SPR CUL-4), avoid historical built resources (SPR CUL-7), and cultural resource training will be provided to all crew members and contractors for protection of sensitive archeological, historical, and tribal resources and avoidance measures for encountered or discovered archeological resources (SPR CUL-8). Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR because the intensity of ground disturbance of the treatment project is consistent with that analyzed in the PEIR.

PSA Addendum - Impact CUL-1

The inclusion of the land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the EIR. However, within the boundary of the treatment area, the potential to encounter built environmental structures that have not yet been evaluated for historical significance in the area outside of the treatable landscape are essentially the same as those within the treatable landscape.

As described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR CUL-4, which applies to substantially causing an adverse change in the significance of built historical resources. However, the proposed revisions to SPR CUL-4 apply only to non-ground disturbing (e.g., manual, prescribed fire, herbicide) activities. If these are the only activities to be completed in the project area, an archeological survey report for that area will not be written. Proposed revisions to SPR CUL-4 would not result in any new or substantially more severe effects related to historically significant resources than what was covered in the PEIR.

Therefore, the potential impact to historical resources is also less than significant. This determination is consistent with the PEIR and would not constitute and substantially more severe significant impact than what was covered in the PEIR.

Impact CUL-2

Initial and maintenance treatments including manual, mechanical, prescribed burn, prescribed herbivory, and herbicide do not have the potential to cause a substantial adverse change in the significance of the unique archeological resources or subsurface historical resources because they do not involve significant soil disturbance. However, mechanical treatment types utilizing heavy equipment could result in churning up the surface of the ground during treatment as vegetation is removed, as described within the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 15-16). Per PEIR, a record search was conducted for the project area and confirmed on February 18th, 2022 (SPR CUL-1), all geographically affiliated Native American Tribes will be conducted prior to treatment activities (SPR CUL-2), pre-field research will be conducted prior to treatment (SPR CUL-3), a survey will be conducted prior to treatment (SPR CUL-4), and any identified archeological sites will be avoided or treated (SPR CUL-8). The potential for these treatment activities to result in an inadvertent discovery and subsequent damage of unique archeological resources or subsurface historical resources during vegetation treatment was examined in the PEIR. This impact was

identified as potentially significant. For this project, MM CUL-2 will require that if prehistoric or historic-era subsurface archaeological feature or deposit is discovered, all ground disturbing activities 100 feet of the resource will be halted, and every reasonable effort to identify and protect the resource would be applied. The implementation of the applicable SPRs and MM CUL-2 would reduce impacts to inadvertent discoveries. However, it is uncertain if these measures would avoid substantial adverse changes to the resource. Therefore, this impact would be significant and unavoidable.

PSA Addendum - Impact CUL-2

The inclusion of land in the proposed treatment 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 treatment area, the potential for discovery of archaeological resources is essentially the same within and outside the treatable landscape.

As described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR CUL-4, which applies to unique archeological resources or subsurface historical resources. However, the proposed revisions to SPR CUL-4 apply only to non-ground disturbing (e.g., manual, prescribed fire, herbicide) activities. If these are the only activities to be completed in the project area, an archeological survey report for that area will not be written. Proposed revisions to SPR CUL-4 would not result in any new or substantially more severe effects related to unique archeological resources or subsurface historical resources than what was covered in the PEIR.

Therefore, the potential impact to unique archaeological resources or subsurface historical resources is also considered significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a more severe significant impact than what was covered in the PEIR.

Impact CUL-3

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 herbicide, prescribed burning and prescribed herbivory treatment types. As explained in the PEIR, implementation of SPRs CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and CUL-8 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 of 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); this impact remains less than significant.

PSA Addendum - Impact CUL-3

The inclusion of land in the proposed treatment 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 tribal cultural affiliations present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape.

As described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR CUL-4, which applies to altering the significance of a tribal resource. However, the proposed revisions to SPR CUL-4 apply only to non-ground disturbing (e.g., manual, prescribed fire, herbicide) activities. If these are the only activities to be completed in the project area, an archeological survey report for that area will not be written. Proposed revisions to SPR CUL-4 would not result in any new or substantially more severe effects related to unique archeological resources or subsurface historical resources than what was covered in the PEIR.

Therefore, the potential impact to tribal cultural resources is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact CUL-4

Initial and maintenance treatment vegetation activities would include mechanical treatment using heavy equipment; these treatments may use tractors, skidders, masticators, and/or chippers, which could uncover human remains if present in treatment area. The potential for treatment activities to uncover human remains was examined in the PEIR; this impact is within the scope of the PEIR because the intensity of ground disturbance is consistent with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 18). Per the PEIR, the project would comply with California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 in the event that human remains are discovered. No SPRs are applicable to this impact. Based on the compliance with the California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 and consistency with the scope of the PEIR, this impact remains less than significant.

PSA Addendum - Impact CUL-4

The inclusion of land in the proposed treatment 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 treatment area, the potential for uncovering human remains during implementation of the treatment project is essentially the same within and outside the treatable landscape and treatment activities.

As described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR CUL-4, which applies to disturbing human remains. However, the proposed revisions to SPR CUL-4 apply only to non-ground disturbing (e.g., manual, prescribed fire, herbicide) activities. If these are the only activities to be completed in the project area, an archeological survey report for that area will not be written. Proposed revisions to SPR CUL-4 would not result in any new or substantially more severe effects related to disturbing human remains than what was covered in the PEIR.

Therefore, the impact related to disturbance of human remains is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

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 site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the PEIR (CalVTP Final PEIR Volume II Section 3.5.1 and 3.5.2). Therefore, no new impact related to archaeological, historical, or tribal cultural resources or human remains would occur.

PSA Addendum - New Archaeological, Historical, and Tribal Cultural Resource Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a changed circumstance to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, the existing environmental and regulatory conditions pertinent to archaeological, historical, or tribal cultural resources that are present in the areas outside of 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 or human remains would occur.

4.5 Biological Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTS	Impact BIO-1, pp 3.6-131–3.6.138	Yes	BIO-1 BIO-2 BIO-7 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-4	BIO-1a BIO-1b	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-5 BIO-10 BIO-11 HAZ-5 HAZ-6 HYD-1 HYD-3 HYD-4 HYD-5	BIO-2a BIO-2b BIO-2g BIO-3a BIO-4	LTS (all wildlife species except bumble bees) S&U (bumble bees)	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-5 BIO-6 BIO-9 HYD-4	BIO-3a	LTS	No	Yes
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-2 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-1 HYD-3 HYD-4	BIO-4	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-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-4 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-5 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	No	AD-3	NA	No Impact	NA	NA
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	No Impact	Impact BIO-8, pp 3.6-199-3.6-200	No	None	NA	No Impact	NA	NA

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Discussion

California Sensitive Natural Communities

Table 4. Fine scale vegetation types within PCCP boundary

California Sensitive Natural Communities	Manual of California Vegetation Alliances	State Rarity Rank	Acres	Percent of PCCP
Brittle leaf - woolly leaf manzanita chaparral	Arctostaphylos (crustacea, tomentosa) Alliance	S3	23.7	0.40%
Santa Cruz cypress groves	Hesperocyparis abramsiana / Arctostaphylos (crustacea, silvicola) Association	S1	4.7	0.08%
Tanoak forest	Notholithocarpus densiflorus Alliance	S3	140.1	2.36%
Redwood forest and woodland	Sequoia sempervirens Alliance	S3	5074.4	85.38%
Douglas fir forest and woodland	Pseudotsuga menziesii – Notholithocarpus densiflorus / Vaccinium ovatum Association	S3	328.5	5.53%
California bay forest and woodland	Umbellularia californica Mapping Unit	S3	16.6	0.28%
Chamise chaparral	Adenostoma fasciculatum Alliance	S5	1.5	0.03%
White alder groves	Alnus rhombifolia Alliance	S4	25.7	0.43%
Coyote brush scrub	Baccharis pilularis Alliance	S5	88.7	1.49%
Knobcone pine forest and woodland	Pinus attenuata Alliance	S4	8.0	0.13%
Coast live oak woodland and forest	Quercus agrifolia Alliance	S4	175.2	2.95%
Interior live oak - Canyon live oak woodland and forest	Quercus wislizeni – Quercus chrysolepis (shrub) Alliance	S4	1.9	0.03%
Interior live oak - shreve oak woodland and forest	Quercus wislizeni – Quercus parvula (tree) Alliance	S4	1.1	0.02%
Arroyo willow thickets	Salix lasiolepis Alliance	S4	3.2	0.05%
Poison oak coyote brush scrub	Toxicodendron diversilobum – (Baccharis pilularis) Association	S4	3.3	0.06%
	Forest Fragment		2.5	0.04%
	Californian Annual & Perennial Grassland Mapping Unit		35.2	0.59%
	Californian Cliff, Scree & Rock Vegetation Group		1.1	0.02%
	Developed		1.2	0.02%
	Shrub Fragment		6.2	0.10%

Table 5. Special-status plant species known to occur in a 5-mile Vicinity of the Project Area and Their Potential for Occurrence in the Project Area

Species	Listing Status		CRPR	Habitat	Potential for Occurrence
	Federal	State			
Anderson's manzanita <i>Arctostaphylos andersonii</i>	-	-	1B.2	This species grows in openings in redwood forests or near forest edges, usually between 197 to 2493 ft in elevation. The Anderson manzanita favors hot areas in broadleaved upland forests, chaparral communities, and North coast coniferous forests. Blooms November-May.	<i>Known to occur</i> <i>Anderson's manzanita has been identified on top of Butano Ridge along Butano Ridge Fire Road.</i>
Kings Mountain manzanita <i>Arctostaphylos regismontana</i>	-	-	1B.2	This species grows in chaparral, broadleaf, and coniferous forests on granite and sandstone soils. It is typically found on the northern slopes of the Santa Cruz Mountains.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
coastal marsh milk-vetch <i>Astragalus pycnostachyus</i> <i>var. pycnostachyus</i>	-	-	1B.2	The coastal marsh milk-vetch favors cool areas in coastal dune or scrub communities and often favors moist areas in marshes and swamps along the coast, usually in elevations between 0 to 509 ft. Blooms April-October.	<i>Not expected to occur</i> <i>This species is not expected to occur PCCP due to the absence of suitable habitat.</i>
Ben Lomond spineflower <i>Chorizanthe pungens</i> <i>var. hartwegiana</i>	Endangered	-	1B.1	The Ben Lomond spineflower grows in marine sand deposits within sandhill chaparral communities and lower montane coniferous forests and is known to occur between 334 to 1558 ft in elevation. Blooms April-July.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>

western leatherwood <i>Dirca occidentalis</i>	-	-	1B.2	This species grows in moist locations with partial shade. The western leatherwood can be found in riparian or wetland habitats within chaparral, cismontane woodlands, north coast coniferous forests and broadleaved upland forests. It is known to occur between 82 to 1394 ft in elevation. Blooms January-March (April).	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
San Mateo woolly sunflower <i>Eriophyllum latilobum</i>	Endangered	Endangered	1B.1	This species favors oak woodlands and grows in foothill woodland, cismontane woodland, coastal scrub, lower montane coniferous forest. It is known to occur between 98 to 2001 ft in elevation. Blooms May-June.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
minute pocket moss <i>Fissidens pauperculus</i>	-	-	1B.2	Minute pocket moss grows on bare, moist soil banks commonly near the base of redwood trees.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
Toren's grimmia <i>Grimmia torenii</i>	-	-	1B.3	This species favors rocky openings within chaparral, cismontane woodland, and lower montane coniferous forest communities between 1066 to 3806 feet in elevation.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
vaginulate grimmia <i>Grimmia vaginulata</i>	-	-	1B.1	This species favors limestone, rocky openings, boulder and rock walls open chapparal between 2247 and 3724 ft in elevation.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
Butano Ridge cypress	Threatened	Endangered	1B.2	This species is known only to occur along the Butano Ridge within the Santa Cruz Mountains within	<i>Known to occur</i>

Hesperocyparis <i>abramsiana</i> var. <i>butanoensis</i>				chaparral or closed-cone pine forest communities between 400 and 490 meters in elevation.	<i>Small population of Butano Ridge cypress are found on Butano Ridge inside the park boundary.</i>
legenere <i>Legenere limosa</i>	-	-	1B.1	This species grows in wetlands and favors vernal-pools, valley grassland, freshwater wetland and wetland-riparian communities between 3 to 2887 feet in elevation. Blooms April-June.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>
Point Reyes meadowfoam <i>Limnanthes douglasii</i> ssp. <i>sulphurea</i>	-	Endangered	1B.2	This species favors full-sun locations within wetland and coastal prairie communities on the edges of meadows, freshwater-marshes, and vernal-pools, generally below 3,300 feet in elevation. Blooms May-July	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
arcuate bush mallow <i>Malacothamnus arcuatus</i> var. <i>arcuatus</i>	-	-	1B.2	This species favors habitats in early-successional or post-burn slopes within chaparral and cismontane woodland communities between 3 to 2411 feet in elevation. Blooms April-September.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
woodland woollythreads <i>Monolopia gracilens</i>	-	-	1B.2	It grows in grassland, open chaparral, oak woodland, mixed evergreen forest, and redwood forests, often on serpentine soils in elevations between 328 to 3937 feet in elevation. Blooms (February), March-July. Non-native species, such as <i>Avena fatua</i> , are a threat to the woodland woollythreads.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>
Kellman's bristle moss <i>Orthotrichum kellmanii</i>	-	-	1B.2	This species favors sandstone and carbonate rocks within chaparral and cismontane woodlands between	<i>May occur</i>

				1125 to 2247 feet in elevation. Blooms January-February	<i>PCCP may contain potentially suitable habitat for this species.</i>
Dudley's lousewort <i>Pedicularis dudleyi</i>	-	Rare	1B.2	Dudley's lousewort grows in chaparral, cismontane woodlands, north coast coniferous forests, valley or foothill grasslands, and disturbed road cuts in those forest types usually in elevations between 197 to 2953 feet in elevation. Blooms April-June	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
white-flowered rein orchid <i>Piperia candida</i>	-	-	1B.2	The white-flowered rein orchid grows in coniferous forests within coastal mountain ranges usually in elevations between 148 to 5299 feet in elevation. Blooms (March), May- September.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
Choris' popcornflower <i>Plagiobothrys chorisianus</i> <i>var. chorisianus</i>	-	-	1B.2	This species grows in moist, grassy areas in wetlands or ephemeral drainages. The Choris' popcornflower favors coastal prairie, chaparral, northern coastal scrub, and wetland-riparian communities between 49 to 525 ft in elevation. Blooms March-June.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>
Santa Cruz clover <i>Trifolium buckwestiorum</i>	-	-	1B.1	This species favors habitat in disturbed grassy or gravelly coastal prairie or mixed evergreen forests in elevations between 344 to 2001 ft in elevation. Blooms April-October. Feral pig rooting is a threat to this species.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>

Table 6. Special-status animal species known to occur in a 5-mile Vicinity of the Project Area and Their Potential for Occurrence in the Project Area

Species	Listing Status		CDFW Listing Status	Habitat	Potential for Occurrence
	Federal	State			
Santa Cruz black salamander <i>Aneides niger</i>	-	-	SSC	This species occurs in mixed deciduous woodland, coniferous forests, and coastal grasslands in California. This species can be found in riparian areas near streams and under damp debris, but do not inhabit streams.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
pallid bat <i>Antrozous pallidus</i>	-	-	SSC	This species favors rocky outcrops in semi-arid climates within grasslands, chaparral, oak woodlands, and coniferous forests. The pallid bat diet consists of ground-dwelling prey like small mammals or reptiles and large flying or ground-dwelling insects.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>
long-eared owl <i>Asio otus</i>	-	-	SSC	This species roosts in forests with dense vegetation near grasslands or shrublands for foraging. The long-eared owl uses abandoned stick nests in tree cavities or cliffs, where they lay 2-10 white eggs. This species preys on small mammals in open ground or sparse forests. The diet predominately consists of mice, kangaroo rats, shrews, voles, rabbits, and occasionally small birds.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>

<p>burrowing owl <i>Athene cunicularia</i></p>	-	-	SSC	<p>Habitat commonly consists of prairies, farmland, airfields, and grazed, non-native grassland. Favorable habitats are primarily open, flat areas with short grass or bare soil. Nesting consists of building a 6-10 ft. long burrow that contains a nest chamber at the end. Evidence of burrows may include feathers and whitewash on the ground. In the west, the monogamous owls will lay 7-10 white eggs that get stained from the soils in the burrow. The burrowing owl diet consists of insects and small mammals or amphibians; hunting primarily occurs at night but will occur day and night during breeding season.</p>	<p><i>Not expected to occur</i></p> <p><i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i></p>
<p>western bumble bee <i>Bombus occidentalis</i></p>	-	CE	-	<p>Associates with a wide range of flowering plants and crops within open coniferous, deciduous and mixed woodland forests, wet and dry meadows. The western bumble bee is capable of foraging in cold, rainy weather conditions and commonly nests underground.</p>	<p><i>May occur</i></p> <p><i>The project area may contain potentially suitable habitat for this species.</i></p>

<p>Marbled murrelet</p> <p><i>Brachyramphus marmoratur</i></p>	Threatened	Endangered	-	<p>This species favors nesting sites in old-growth coniferous forests or rocky talus slopes near the Pacific Ocean, up to approximately 15 miles inland. The marbled murrelet nests on large branches approximately 4 inches in diameter or larger that create a platform that may be screened from predators or wind by branches of nearby trees, where the female will lay one yellow, olive, or blue-green egg with brown, black, and lavender specks. This seabird forages in coastal marine habitats, dieting on primarily fish and crustaceans.</p>	<p><i>Known to occur</i></p> <p>Marbled murrelet have been identified in PCCP.</p>
<p>Townsend's big eared bat</p> <p><i>Corynorhinus townsendii</i></p>	-	-	SSC	<p>This species favors dense coniferous forests, native prairies, and coastal communities usually below 3,300 meters elevation. This bat prefers dark, open caves or cliffs in cold areas for roosting and does not roost in rock crevices. The primary food source for this species is moths, however, beetles and other small insects are also common.</p>	<p><i>May occur</i></p> <p>This species may occur in PCCP due to hollowed basal cavities resulting in suitable roosting habitat.</p>
<p>black swift</p> <p><i>Cypseloides niger</i></p>	-	-	SSC	<p><i>Cypseloides niger</i> nests on cliff ledges and behind waterfalls in areas inaccessible to predators. Forages over forests and open areas.</p>	<p><i>Not expected to occur</i></p> <p>This species is not expected to occur in PCCP due to the absence of suitable habitat.</p>

<p>California giant salamander</p> <p><i>Dicamptodon ensatus</i></p>	-	-	SSC	<p>The California giant salamander requires habitat with cover for hiding, sun protection, and breeding and can be found under rocks, logs, or stones. This species' aquatic habitat consists of lakes, ponds, rivers, streams, or fast-moving water. Females deposit 85-200 eggs underwater and protect the eggs until they hatch. This species has a relatively slow reproduction rate due to long gestation period and they do not reach sexual maturity until they are 5-6 years old.</p>	<p><i>Known to occur</i></p> <p>The California giant salamander has been identified in PCCP.</p>
<p>San Francisco dusky-footed woodrat</p> <p><i>Neotoma fuscipes annectens</i></p>	-	-	SSC	<p>This species prefers moderate canopy coverage in oak woodland, chaparral or shrubland, and coniferous forest communities.</p>	<p><i>Known to occur</i></p> <p>The San Francisco dusky-footed woodrat has been identified in PCCP.</p>
<p>Coho salmon- central California coast</p> <p><i>(Oncorhynchus kisutch pop. 4)</i></p>	Endangered	Endangered	-	<p>CCC Coho salmon spend approximately the first half of their life cycle rearing and feeding in streams and small freshwater tributaries. Spawning habitat is comprised of small streams with stable gravel substrates. These fish need cold, clean freshwater streams to lay their eggs, along with side channels and floodplains where young fish can find food and hide from predators. The remainder of their life cycle is spent foraging in estuarine and marine waters of the Pacific Ocean. Timing of streamflow's is critically important to CCC Coho salmon. Severe high flow events that occur early in winter (December, January) can scour holding pools, move large wood cover, open lagoon mouths for migration, and generally</p>	<p><i>Known to occur</i></p> <p>The Coho salmon has been identified in PCCP.</p>

				improve Coho habitat, while similar flood events later in the season (February, March) can wash away redds and eggs or flush juvenile CCC Coho out of over-wintering habitat such as pools, side channels, or estuaries.	
steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus pop. 8</i>	Threatened	-	SSC	This is an anadromous fish species that occurs in freshwater Pacific coast streams. This steelhead species will migrate to marine waters once it nears maturity, then returns to freshwater streams for spawning. Typically, this species requires a minimal of approximately 7 inches of water depth for migration and favors spawning habitat between 6 and 24 inches deep, usually in slow moving currents. High water velocities and low water depth can impede on this species' capability to migrate.	<i>Known to occur</i> <i>Steelhead have been identified in PCCP.</i>
Mountain Lion <i>Puma Concolor</i>	-	-	CE	This species prefers dense vegetative areas within mountain ranges of coniferous forests, scrub and oak woodlands, and arid communities.	<i>Known to occur</i> <i>PCCP contains suitable habitats for this species.</i>
California red-legged frog <i>Rana draytonii</i>	Threatened	-	SSC	Common habitat consists of locations near ponds or along streams in humid forests, grasslands, and coastal scrub communities that contain plant cover. This species breeds in permanent water sources and requires moist refuges, like animal burrows, for cover in the dry season.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>

red-bellied newt <i>Taricha rivularis</i>	-	-	SSC	This species occurs in coastal woodlands or redwood forests near streams or rivers. The diet predominately consists of invertebrates. During reproduction, this species becomes aquatic and the females lay eggs near rocks or submerged roots	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
American badger <i>Taxidea taxus</i>	-	-	SSC	Habitat consists of open areas such as prairies, farmland, and plains as well as edges of woods. The American badger is a nocturnal carnivore and its diet primarily consists of small rodents, reptiles, birds, and insects.	<i>May occur</i> <i>PCCP may contain potentially suitable habitat for this species.</i>
San Francisco gartersnake <i>Thamnophis sirtalis tetrataenia</i>	Endangered	Endangered	-	This species favors openings in grasslands or wetland areas near ponds, marshes, or sloughs and is capable of swimming. During the dry season, the San Francisco gartersnake may become dormant in rodent burrows. The primary diet consists of amphibians, small mammals, reptiles, earthworms, slugs, slugs, and leeches.	<i>Not expected to occur</i> <i>This species is not expected to occur in PCCP due to the absence of suitable habitat.</i>

California Rare Plant Rank

1B – Plant species rare or endangered in California and elsewhere (Not Protected under ESA or CESA)

0.1 – Seriously threatened in California (over 80% of occurrences are threatened, high degree and immediacy of threat)

0.2 - Moderately threatened in California (20-80%) occurrences threatened; moderate degree and immediacy of threat)

CDFW Listing Status

SCC – Species of Special Concern

Impact BIO-1

Initial and maintenance treatments include the use of manual and mechanical vegetation removal, prescribed broadcast and pile burning, herbicide application, as well as prescribed herbivory. These activities have the potential to impact 2 special status plant species which have known occurrences within the project area and 11 of which are not known to occupy the project property, however, have suitable habitat located within treatment areas. The potential for adverse effects to plants is within the scope of the activities and impacts addressed in the PEIR because the activities and level of disturbance planned for this project are consistent with those consistent in the PEIR. As discussed in the PEIR (CalVTP Final PEIR volume II Section 3.6.3, pages 133-134), prescribed burning has the potential to directly burn or scorch special status plants, mechanical treatments may directly disturb special status plants through masticating, tilling or grubbing, manual treatments may impact special-status plants through trampling by ground workers, and finally herbicide application may impact special status plants through inherent drift of chemicals to non-targeted species. With the removal of dense understory plants and invasive species through manual, mechanical, prescribed burning and prescribed herbivory treatments, as well as increase in canopy gaps produced by removal of codominant trees will promote regeneration of native species that supports healthier residual ecosystem. Applicable SPRs to this project include SPR BIO-1, BIO-2, BIO-7, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7 and HYD-4. Additionally, MM BIO-1a, and BIO-1b would be applied.

Special Status Plants

A search in CNDDDB BIOS 6 database resulted in 13 Special Status Plant species with potentially suitable habitat in the project area. Two of these species (Anderson's manzanita and Butano ridge cypress) have known occurrences within the bounds of PCCP. An analysis for potential impact on each special-status plants species that may occur within 5-miles of the project boundary has been completed (Attachment C). Botanical surveys will be conducted at a reconnaissance level across the property prior to operations to determine the occupancy of special status species that have the potential to occur in the project area. Periodic reconnaissance level surveys will continue at this property through the life of the PSA, at a minimum of every five years as required by CDFW. If any California Endangered Species Act (CESA) or Federally Endangered Species (ESA) listed plant is encountered, operations shall cease in proximity, and the area shall be avoided. SMCP Staff, or their supervised designee shall be notified immediately.

In alignment with SPR BIO-7, the project proponent will perform a protocol-level survey for special status plants. Reconnaissance level surveys will identify special status plants on site, MM BIO-1a would be implemented for any CESA, or ESA. Other special status plant species will be covered under MM Bio-1b, which establishes a buffer around 50 feet protecting species from treatments with the size and shape of the buffer varying per instance. The exception to these MMs will occur if it is determined by a qualified RPF or botanist, in consultation with CDFW and USFWS when appropriate, that the listed plants would benefit from the treatment in occupied habitat area even though individual listed plants may be lost during treatment activities.

The potential for treatment activities to result in adverse effects on special-status plants was examined in the PEIR. This impact on special-status plants is within the scope of the PEIR because the treatment activities, intensities, duration, and equipment are consistent with those analyzed in the PEIR. Based on the implementation of the applicable SPRs and MMs and consistency with the PEIR, this impact would remain less than significant. In addition, treatments may be ecologically restorative and beneficial to special-status

plants by reducing competition for resources. This can create opportunities for the germination of dormant special-status plant seeds in the seedbank.

Addendum Impact BIO-1

The inclusion of land in the proposed treatment 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 treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape.

As described in Section 1.2, "Proposed Project Revisions," SMCP proposes revisions to SPR HYD-4 and SPR GEO-1. WLPZs will be established only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory, and herbicide treatments. Mechanical, herbivory, and herbicide treatments will also be suspended if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical activities. This revision aligns with the original intent of SPR HYD-4 and SPR GEO-1 to protect watercourses during implementation and prevent soil disturbance, increased runoff, soil destabilization, and water quality impacts, respectively. For the reasons described, proposed revisions to SPR HYD-4 and SPR GEO-1 would not result in a substantially more severe significant effect related substantially affect special-status plant species than what was covered in the PEIR.

Therefore, the potential impact on special-status plants is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than was covered in the PEIR.

Impact BIO-2

The proposed project could result in direct or indirect adverse effects on special status wildlife species and habitat suitable for these species within the treatment area, as described in the following sections the potential for adverse effects to special status wildlife species is within the scope for the activities and impacts addressed in the PEIR because the activities and level of disturbance as a result in implementing treatment activities are consistent with those analyzed in the PEIR.

Special Status Wildlife

When conducting a CNDDDB search for special status wildlife within the park's boundaries, no species were returned. With that said, there are special status wildlife known to inhabit PCCP according to county parks biologist. Those species are as follows: Marbled murrelet (*Brachyramphus marmoratur*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectensi*), Mountain Lion (*Puma Concolor*), Western Bumble Bee (*Bombus occidentalis*), California Giant Salamander (*Dicamptodon ensatus*), Steelhead – central California coast (*Oncorhynchus mykiss irid*), Coho salmon - central California coast ESU (*Oncorhynchus kisutch*), California giant salamander (*Dicamptodon ensatus*), and California red-legged frog (*Rana draytonii*). Within the CalVTP PEIR (Table 3.6-32), the previously mentioned species are grouped into the following life history groupings for project specific protection measures: tree-nesting and cavity-nesting wildlife, ground-nesting Wildlife, insects and other terrestrial invertebrates, fish and aquatic invertebrates, and amphibians and reptiles. Additionally, species identified in Table 6 that *may occur* will be protected under CalVTP PEIR BIO SPRs and MMs, including BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11, HAZ-5, HAZ-6, HYD-1, HYD-3, HYD-4, HYD-5, and MM BIO-2a, BIO-2b, BIO-2g, BIO-3a, and BIO-4.

Tree-nesting and Cavity Nesting Wildlife

Marbled murrelet (Brachyramphus marmoratus)

The marbled murrelet (MAMU) is a federally threatened and state endangered seabird that nests in old-growth or exceptionally large second-growth Douglas-fir and coast redwood trees. MAMU rely on suitable nesting platforms formed by flat or depressed portions of large lateral branches, typical of old trees with complex canopy structures. Within the Santa Cruz Mountains, MAMU typically breed between March and September, relying on the few remaining stands of old-growth trees as well as older stands of second-growth trees.

MAMU actively inhabit PCCP, predominantly on the north side of Pescadero Creek and to the east into Portola State Park, where rich groves of old growth redwood provide exceptional breeding habitat (Sanders, 1990). The south side of Pescadero Creek supports a lower quality suitable habitat for the MAMU, but the creek is clearly a flyway that MAMU frequent during the breeding season.

The following SPRs apply to MAMU outlined in the tree-nesting and cavity-nesting wildlife PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 144-152) SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11 HAZ-5, HAZ-6, HYD-4. MM BIO-2a, mortality, injury, and disturbance will be avoided and habitat function maintained through the adoption of the applicable recommended minimization and avoidance measures.

The following recommended Best Management Practices take into account recorded MAMU behaviors analyzed by SMCP, the impact of the CZU Fire on their habitat, and the urgent need to protect and promote remaining habitat. These practices aim to reduce the risk of further habitat loss from extreme wildfires and climate change through proactive forest management:

- Operational Window: High decibel work (81-90 dB) (See Attachment E) in proximity or within areas identified as MAMU habitat, occupied or important habitat areas in PCCP may begin on August 15th and continue to March 24th, except for the following conditions:
 - New Audio-Visual (AV) or Acoustic Recording Unit (ARU) data suggests different dates when MAMU nest in these areas.
 - High decibel work may occur year around in areas of the CZU Fire that burned at moderate-high and high severities where MAMU habitat was significantly compromised or destroyed.
- Working Hours: Do not work during the dawn and dusk period in areas identified as MAMU habitat, occupied or important habitat areas that experienced low or moderate burn severity. Work from 1.5 hours after sunrise to 1 hour before sunset between March 24th – August 15th in MAMU important areas within PCCP.
- Noise Restrictions: Noise restrictions should be in place that address any chronic noise production or new noise that is 30-35 dB above background (See Attachment E). These noises should be carefully evaluated and minimized to the extent possible.
 - Habitat Buffer: Sound analysis work and data indicates that in areas of low to moderate fire severity identified as MAMU habitat, where occupied or important habitat areas in the

Santa Cruz Mountains still exist, disturbance buffers can be reduced to 330 feet to allow larger handwork crews and mastication equipment to conduct forest restoration and resiliency treatments greater than normal routine maintenance actions and park use, from March 24th to August 15th in PCCP.

- Strategic Planning: Time forestry work to occur as far from MAMU habitat in the July timeframe and gradually work towards MAMU habitat as the season tapers off.
- Continued Monitoring: AV and ARU monitoring will continue in areas where these recommendations are being followed to monitor changes in MAMU behavior supporting adaptive management strategies as needed to protect the species. Survey data will be shared with Agencies as it is available post-season to adjust work windows based on new information.
- Routine Maintenance: General, routine work within the scope of the County of San Mateo Routine Maintenance Program may be conducted at any time, year-round within PCCP.

The potential for treatment activities including maintenance treatments to result in adverse effects on MAMU was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 138 to 184). MAMU is within the scope of the PEIR because effects to MAMU were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. 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. Furthermore, habitat function for MAMU would be maintained because treatment activities and maintenance treatments would not target potential MAMU nesting habitat.

Ground-nesting Wildlife

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)

The San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) is a CDFW listed species of special concern. This rodent species can reach approximately 9 inches in length (body), with an additional 6.5-to-8-inch tail. The San Francisco dusky-footed woodrat has large round ears and light colored, slightly hairy feet. Although CNDDDB did not yield any confirmed occurrences for San Francisco dusky-footed woodrat within the project area, local knowledge of the project area indicates that this species is known to occur and the project area contains suitable habitat; the nearest recorded occurrences are located in the vicinity of Davenport. San Francisco dusky-footed woodrat construct nests, also known as middens, with vegetative material including grass, leaves, and woody material. Nests can reach up to 8 feet wide and 6 feet tall and are typically occupied by a single adult, except during short periods during pupping season. San Francisco dusky-footed woodrat prefer moderate canopy cover in oak woodland, chaparral or shrubland, and conifer forest communities.

Manual, mechanical, and prescribed burning treatment activities may result in inadvertent disturbance to, injury to, or mortality of individual San Francisco dusky-footed woodrats or destruction of nests by equipment or personnel. Furthermore, heavy machinery, personnel, or vehicles may inadvertently destroy occupied nests. While targeted herbicide treatments are not expected to disturb woodrats or nests, they have the potential for adverse effects due to accidental exposure to chemicals. The potential for adverse effects from targeted herbicide treatments would be avoided and minimized through the implementation

of SPR HAZ-5, SPR HAZ-6, and SPR HYD-5. The potential for treatment activities, including maintenance treatments, to result in adverse effects on San Francisco dusky-footed woodrat was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3 pages 138 to 184).

In accordance with SPR BIO-10, a focused survey will be performed prior to operations as well as periodically throughout the lifespan of this permitting document. If San Francisco dusky-footed woodrat nests are detected within treatment areas during focused surveys, a no-disturbance buffer of sufficient size (approximately 5-10 feet) to prevent disturbance would be established around the nests to prevent accidental encroachment by vehicles, equipment, or personnel. If San Francisco dusky-footed woodrat nests within treatment areas cannot be avoided, nest removal may occur only outside the breeding season (January 1st - September 30th), if feasible. If San Francisco dusky-footed woodrat must be removed during the breeding season, they will be slowly removed by hand to determine if young are present. If young are present the nest material shall be replaced and the nest left alone for 2-3 weeks at which time the nest can be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling. Furthermore, nest removal efforts should not take place during inclement weather or extreme weather conditions and should take place at dusk or dawn, when woodrats are least susceptible to predators. Additionally, prior to nest removal, safety precautions should be employed to minimize potential human exposure to possible diseases and viruses carried by woodrats; adequate protection, such as protective clothing, equipment and tools, gloves, and appropriate masks, should be used to ensure the health and safety of humans removing the nests.

Pursuant to MM BIO-2b, prescribed broadcast burning will be avoided, when feasible, in known woodrat locations during peak breeding season in mid-spring (April 15 – May 15).

Per MM BIO-3a, habitat function for San Francisco dusky-footed woodrat would be maintained because a sufficient level of downed logs, woody debris, and vegetative material would be retained within the treatment area, which would provide cover and forage for the species.

The potential for treatment activities including maintenance treatments to result in adverse effects on the San Francisco dusky-footed woodrat was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 158-161). Potential impacts to San Francisco dusky-footed woodrat are within the scope of the PEIR because effects to San Francisco dusky-footed woodrats were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of SPR BIO-1 through SPR BIO-5, SPR BIO-10, SPR HAZ-5, SPR HAZ-6, SPR HYD-5, MMs BIO-2b, BIO-3a, and consistency with the PEIR, impacts to San Francisco dusky-footed woodrat or other special-status wildlife within the ground-nesting life history group is reduced to less than significant. This impact is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Mountain lion (*Puma concolor*)

Mountain lion (*Puma concolor*) is a CDFW candidate endangered species with documented occurrences throughout the Santa Cruz Mountains. Mountain lions have a tan coat with a white cream underside with males ranging from 6 to 8 feet in total length and females ranging from 5 to 7 feet. Mountain lions prefer dense vegetative areas within mountain ranges of conifer forests, scrub and oak woodlands, and arid communities. Mountain lions are opportunistic hunters, primarily feeding on deer and small mammals.

Although CNDDDB had no documented occurrences within the project area or within the CNDDDB search area, local knowledge of the project area indicates that this species is known to occur. Initial and maintenance treatments will be conducted within suitable year-round foraging habitat, which could result in impacts to this species; the potential for treatment activities, including maintenance treatments, to result in adverse effects on burrowing or denning special-status wildlife, including mountain lions, was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 161-164).

Mountain lions are most active during dusk and dawn hours, when manual, mechanical, targeted herbicide application, and prescribed burn ignitions are unlikely to occur. However, broadcast burn operations have the potential to occur at any time. In addition, mountain lions are likely to avoid areas where treatments are actively being performed due to the increase in noise and human presence. While targeted herbicide treatments are not expected to disturb mountain lions or mountain lion dens, they have the potential for adverse effects due to accidental exposure to chemicals. The potential for adverse effects from targeted herbicide treatments will be avoided and minimized by implementation of SPR HAZ-5, HAZ-6, and HYD-5.

In accordance with SPR BIO-10, the project proponent will assume presence of mountain lion, and MM BIO-2b will be required. Pursuant to MM BIO-2b, the project proponent will consult with CDFW to determine if habitat function for mountain lion will be maintained following implementation of initial and maintenance treatments. Any mountain lion sightings or detections of dens or rendezvous sites will be immediately reported to CDFW. A 300-foot no-operations buffer will be established around active den sites. Operations shall not commence within the no-operations buffer until appropriate buffers and MMs can be determined and approved by CDFW.

Per MM BIO-3a, habitat function for mountain lion will be maintained by the project because treatment activities will retain the majority of the dominant canopy for all forested plant communities. Additionally, portions of native shrub habitats, which provide cover for hunting and habitat and forage for prey species will be maintained or improved.

The potential for treatment activities including maintenance treatments to result in adverse effects on the mountain lion was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 161-164). Potential impacts to mountain lions are within the scope of the PEIR because impacts to mountain lions were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of SPR BIO-1 through SPR BIO-5, SPR BIO-10, SPR HAZ-5, SPR HAZ-6, SPR HYD-5, MMs BIO-2b, BIO-3a, and consistency with the PEIR, impacts to mountain lions or other special-status wildlife within the burrowing or denning wildlife life history group is reduced to less than significant. This impact is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Insects and Other Terrestrial Invertebrates

Western Bumble Bee (*Bombus occidentalis*)

Western bumble bees are listed as a state candidate species. Western bumble bees are associated with a wide range of flowering plants and crops within coniferous, deciduous, and mixed-woodland forests, and wet and dry meadows. The CNDDDB search did not return any recorded occurrences within the project area,

however, recorded occurrences span from within 1 mile of the project area to greater than 5 miles from the project area. Potentially suitable habitat for western bumble bees may be present in open grassland, shrublands, and wet meadows within the project area.

Proposed treatments including manual, mechanical, prescribed pile and broadcast burning, and targeted herbicide treatments have the potential to cause adverse effects to western bumble bee either through the disruption of suitable habitat or through physically killing or disrupting ground-nesting colonies or larva incapable of flight, as analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 164-171). Pursuant to SPR BIO-10, focused surveys for western bumble bees in wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species will be implemented prior to treatments.

Pursuant to MM BIO-2g for special-status bumble bees, the project proponent will implement the following measures as feasible if western bumble bees are determined to present:

- Prescribed broadcast burning within occupied habitat or suitable habitat for western bumble bees shall 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).

Additionally, the understory retention requirements described under Section 2.1 Treatment Prescription in forested environments shall provide additional patchy patterns of vegetation retained to support this species temporarily while the understory regenerates, maintaining habitat function per MM BIO-2a.

Furthermore, in CDFW's 2023 Survey Consideration for CESA Candidate Bumble Bee Species document, if surveys, such as those performed under SPR BIO-10, determine that suitable nesting, foraging, or overwintering habitat is present within the project area, then it is recommended that a biological monitor be onsite during vegetation and ground disturbing activities that occur during the queen flight period, gyne flight period, and colony active period; according to Table 1 of the CDFW document, western bumble bees queen flight season is February-March, colony active period is April-September, and gyne flight season is October-November (California Department of Fish and Wildlife, 2023). This recommendation will be implemented if a qualified biologist or RPF determines that ground disturbing treatment activities cannot feasibly avoid suitable habitat (i.e., open grassland, shrublands, and wet meadows) during the queen and gyne flight periods and colony active period; this project is designed to have ground-disturbing activities predominately in forested environments, which may avoid ideal suitable habitat.

Additional site-specific measures to avoid take of this species may be developed following determinations from the implementation of SPR BIO-10.

The potential for treatment activities including maintenance treatments to result in adverse effects on western bumble bees was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 164-171). Potential impacts to western bumble bees are within the scope of the PEIR because effects to western bumble bees were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Furthermore, habitat function for western bumble bees would be maintained because treatment activities and maintenance treatments are designed to occur in a patchy manner that would maintain habitat for this species. Applicable SPRs and MMs for the western bumble bee include SPR BIO-1 through SPR BIO-5, SPR BIO-10, SPR HAZ-5, SPR HAZ-6, SPR HYD-5, MMs BIO-2a, BIO-2g, and BIO-3a. Despite the implementation of these SPRs and MMs, potential impacts to the western bumble bee remain potentially significant and unavoidable due to uncertainties in life history characteristics, behaviors, difficulty detecting overwintering, and determining occurrences (CalVTP Final PEIR Volume II Section 3.6.3, page 171). This is a determination consistent with the PEIR and does not constitute a substantially more severe impact than what was covered in the PEIR.

Fish and Aquatic Invertebrates

Steelhead – central California Coast DPS (*Oncorhynchus mykiss irid*) and Coho salmon (*Oncorhynchus kisutch*)

The following SPRs apply to steelhead and coho salmon outlined in fish and aquatic invertebrates' wildlife section within the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 178-182) SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11, HAZ-5, HAZ-6, HYD-4. MM BIO-2a, mortality, injury, and disturbance, will be avoided, and habitat function maintain through the adoption of the applicable recommended minimization and avoidance measures.

Amphibians and Reptiles

California giant salamander (*Dicamptodon ensatus*)

The following SPRs apply to California giant salamander outlined in amphibians and reptiles' wildlife section within the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 182-185) SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11, HAZ-5, HAZ-6, HYD-4. MM BIO-2b mortality, injury, and disturbance will be avoided, and habitat function maintained through the adoption of the applicable recommended minimization and avoidance measures.

California Red-Legged Frog (*Rana draytonii*)

The project area occurs within the historic range of California red-legged frog, so presence is assumed unless protocol-level surveys demonstrate absence. Avoidance and retention measures required by the SPR and MM in the PEIR will be included in the PSA for any FHFR treatments under the CHRP. In some cases, SPRs and MMs from the PEIR are refined for the project to reflect site-specific conditions. Project-specific avoidance and retention measures are provided in the Project Description and the Mitigation Monitoring and Reporting Program (MMRP) of future CalVTP PSAs. Retention measures were informed in

part by the recommendations in Wildfire-Friendly Fuels Reduction in Dry Forests in the Pacific Northwest (Strong & Bevis, 2016).

- Shut Down Periods: (MM BIO-2a) Mechanized operations will be shut down for the following periods after the end of a precipitation event.

California Red-legged Frog Precipitation Shut Down Periods for Mechanized Operations	
Precipitation Amount	Shut down period
≥ .2 inch – 1 inch	24 hours
1 inch – 2 inches	48 hours
≥ 2 inches	72 hours
*Handwork without track chippers may continue	

- *Habitat Retention Standards to Create a Mosaic of Vegetation Following Treatments:*
- Retain healthy trees less than 16 inches DBH with the goal of achieving a 10-20 foot spacing.
 - Stands made up of only trees less than 16 inches DBH will be thinned to a spacing of approximately 10-20 feet apart to disconnect horizontal and vertical fuel continuity. Healthy trees less ≤16 inches DBH will be favored for retention over diseased trees ≤16 inches DBH to meet the spacing goal.
 - Retain existing standing habitat trees, consisting of standing dead, snags, or live trees with dead portions of stems or branches, to provide habitat for wildlife (e.g., birds and beneficial insects), and provide a food source for birds and other wildlife. Where snags do not present a safety hazard, approximately 4-6 foraging snags (< 14 inches DBH) and 1-2 cavity nesting snags (> 16 inches DBH) will be retained per acre.
 - Retain downed woody debris in strategic locations to maintain forest floor complexity, with a preference for larger, complex logs, totaling approximately 10 tons per acre, while reducing fuel connectivity.
 - Target retention for downed woody debris may also be considered as four larger logs (large end greater than 16 inches DBH, approximately 15 feet long).
 - The following understory retention will be implemented to create a mosaic of vegetation to maintain suitable non-aquatic habitat for California red-legged frog but may benefit other species :
 - Hydrophytic riparian species such as (e.g., sedges [Carex spp.], rushes [Juncus spp.], western azalea [Rhododendron occidentale], red elderberry [Sambucus racemosa] and blue elderberry [Sambucus cerulea], and ferns [Pteridophyta]) will be retained unless there is a safety issue, and that species needs to be removed.
 - California hazelnut (Corylus cornuta), where it occurs, shall be maintained at a spacing between 25–100 feet depending on frequency per acre, steepness of slope related to exacerbation of fire behavior, or proximity to key infrastructure and assets.
 - (unless other retention standards are required pursuant to CalVTP SPRs and MMs such as for sensitive natural communities), and whether this retention could

exacerbate fire behavior, or fire behavior proximal to key infrastructure and assets. Patches, or clumps, will be retained across the treatment area to create mosaic pattern of pockets of vegetation to provide quality habitat and browsing (Strong & Bevis, 2016).

- In areas specified for retention of vegetation outside of riparian habitat, maintain associated herbaceous vegetative understory components with an overall goal of maintaining a typical minimum of approximately 5-10% herbaceous understory vegetation per acre unless removal is warranted with respect to recreation, community protection, or other key infrastructure or assets including roads and staging areas.
 - No cutting of California buckeye (*Aesculus californica*), California nutmeg (*Torreya californica*), California Big leaf-maple (*Acer macrophyllum*), western sycamore (*Platanus racemose*), and box elder (*Acer negundo var. californicum*), unless their removal is warranted for crew safety or proximity with respect to recreation or other infrastructure assets including roads and staging areas.
 - Micro stands of untreated oak trees with a cluster radius of approximately 25 feet (50-foot diameter) shall be periodically maintained throughout the project area where feasible; and should be spaced approximately 75–150 feet apart depending on the steepness of slope related to exacerbation of fire behavior or proximity to key infrastructure and assets.
- The residual masticated material shall remain uniformly spread to the extent feasible within the project area, shall not exceed a depth of approximately 6 inches and should average 3 inches. Tracked chippers will be restricted to manual treatment units where slopes do not exceed 35 percent.

SPRs applicable to this impact include SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11, HAZ-5, HAZ-6, HYD-1, HYD-3, HYD-4, HYD-5, as well as MMs BIO-2a, BIO-2b, BIO-3a, and BIO-4. This impact on the California red-legged frog is within the scope of the PEIR because effects on California red-legged frogs were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. 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.

Addendum Impact BIO-2

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area general habitat characteristics are essentially the same within and outside the treatable landscape.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments. This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses during implementation. For the reasons described, proposed revisions to SPR HYD-4 would not result in a

substantially more severe significant effect related special-status wildlife species than what was covered in the PEIR.

Therefore, the potential impact on special status wildlife is also less than significant. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-3

Initial and maintenance treatments include mechanical, manual, prescribed burning, prescribed herbivory and herbicide treatments which have the possibility to result in direct or indirect adverse effects to sensitive habitats including designated sensitive natural communities and oak woodlands. The potential for treatment activities includes designated sensitive natural communities and oak woodlands. The potential for treatment activities to result in adverse effects to sensitive habitats was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 187-192). This project would implement SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-9, and HYD-4. Additionally, MM BIO-3a would be implemented to mitigate the impacts to riparian habitat or other sensitive natural communities. The potential for adverse effects to sensitive habitats is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and level of disturbance as well as a result of treatment activities are consistent with those analyzed in the PSA.

Sensitive Natural Communities

Coastal oak woodland and forest - Quercus agrifolia Alliance - S4

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 175.2 acres of *Quercus agrifolia* Alliance, covering 2.9% of the park. However, on a watershed and regional scale, the Coast Live Oak Alliance is locally common.

Due to the treatment areas containing coastal oak woodlands, or the Coast Live Oak Alliance, as defined in the MCV, MM Bio-3a applies to the proposed project (Sawyer, Keeler-Wolf, & Evens, 2009), however, this project falls under the exception of MM BIO-3a due to the determination of a qualified registered professional forester (RPF) that this area would benefit from the proposed treatments. MM BIO-3a requires the following: the fire return interval for the specific natural community type or alliance must be determined, treatments must be designed to restore the natural fire regime and return vegetation composition and structure to their natural condition, avoid creating fuel breaks in sensitive natural communities with rarity ranks S1 and S2 where feasible, and more than 20% of the native vegetation relative cover from a stand of sensitive natural communities with rarity Rank S3 or in oak woodlands will not be removed by fuel breaks. The exception to the mitigation states that it is acceptable only in cases where it is determined by an RPF or botanist that the sensitive natural community or oak woodland would benefit from the treatment in the occupied habitat area and it shall be demonstrated in the PSA that the treatment will be beneficial with substantial evidence that habitat function is expected to improve, as outlined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 151 and 152).

The impact on Coastal oak woodland and forest is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.

Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Brittle leaf - woolly leaf manzanita chaparral - Arctostaphylos (crustacea, tomentosa) Alliance – S3

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 23.7 acres of *Arctostaphylos (crustacea, tomentosa)* Alliance, covering 0.4% of the park. This small population of manzana was burnt through.

The impact on woolly leaf manzanita chaparral is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Santa Cruz cypress groves - Hesperocyparis abramsiana / Arctostaphylos (crustacea, silvicola) Association – S1

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 4.7 acres of *Hesperocyparis abramsiana / Arctostaphylos (crustacea, silvicola)* Association, covering 0.08% of the park. The Santa Cruz cypress has a small population, denoting a ranking of S1. This species population was burnt through in the CZU fire.

The impact Santa Cruz cypress groves is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Tanoak forest - Notholithocarpus densiflorus Alliance – S3

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 140.1 acres of *Notholithocarpus densiflorus* Alliance, covering 2.4% of the park. The MCV lists the tanoak forest alliance with a rarity rank of S3, however, within the Santa Cruz Mountains the tanoak forest alliance is relatively abundant. Following heavy logging pressure in the 19th and early 20th centuries, previously redwood dominated stands converted to more tanoak dominated when harvestable redwoods were removed. Most of the tanoak stands are located on the south side of the part, which was burnt through in the CZU fire. While the intensity of the fire was moderate to low, the severity was high in tanoak stands. Additionally, tanoaks throughout PCCP are impacted by SOD. These stands current conditions are poor. There are many dead, downed, jackstraw trees with high rates of coppice regenerating resulting in high fuel loading.

The impact on tanoak forest is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as

a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Redwood forest and woodland - Sequoia sempervirens Alliance – S3

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 5,074 acres of *Sequoia sempervirens* alliance, covering more than 85% of the park. PCCP is principally characterized by the Redwood Forest & Woodland Alliance, as defined by the California Native Plant Society in the Manual of California Vegetation, Second Edition⁴⁴. The redwood forest and woodland alliance describes forested stands that are occupied by 50% relative cover of redwood in the tree canopy, or >30% relative cover with other conifers such as Douglas-fir (*Pseudotsuga menziesii*) or with a lower tier of hardwood trees such as tanoak (*Notholithocarpus densiflorus*). The forest at PCCP contains all the above membership scenarios.

Commonly, redwood dominant stands will contain a level of Douglas-fir, particularly where shallower, more mesic soil conditions occur along ridges and south facing aspects. At higher elevations within the property, Douglas-fir is commonly intermixed with dense hardwood systems mainly comprising tanoak, live oaks, and Pacific madrone (*Arbutus menziesii*). Redwood is still present in these areas; however, it is mostly localized to clusters of second-growth, with the exception of scattered old growth individuals and small groves of tall, old redwood near the headwaters of Rhododendron Creek.

The distinction between Douglas-fir dominant systems and redwood dominant systems in areas where the two conifer species intermix is not easily defined as redwood occurs throughout the park at all elevations and aspects and is virtually never secondary to Douglas-fir at any considerable level. Areas that host these vegetation dynamics are more accurately defined as mixed conifer or mixed evergreen forest, as denoted in the 1983 Natural Resources Management Program, yet are likely the product of the extensive logging that took place across the park which provided a catalyst for successional ecological processes that accommodate Douglas-fir and hardwood recruitment.

The impact on redwood forest and woodland is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Douglas fir forest and woodland - Pseudotsuga menziesii – Notholithocarpus densiflorus / Vaccinium ovatum Association – S3

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 328 acres of *Pseudotsuga menziesii – Notholithocarpus densiflorus / Vaccinium ovatum* Association, covering 5.5% of the park. Membership rules that define the Douglas-fir Forest & Woodland Alliance require a >50% relative cover of Douglas-fir in the tree canopy and successful reproduction dynamics; conditions that are not generally observed across the property outside of heavily

disturbed areas or portions of the park where conifer encroachment on grasslands is pronounced. Additionally, the 2020 CZU Fire caused high mortality levels of Douglas-fir across the southern portion of the property and no evident signs of Douglas-fir regeneration have been observed following the event. It is more likely that the redwood component in these areas will remain in dominant canopy positions.

The impact on Douglas fir forest and woodland is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

California bay forest and woodland - Umbellularia californica Mapping Unit – S3

According to fine-scale vegetation data for San Mateo County, released in June 2022 by Tukman Geospatial LLC, the PCCP contains 16.6 acres of *Umbellularia californica* Mapping Unit, covering .28% of the park. Stands of California bay are scattered throughout the park, some in the footprint of the CZU fire and some in unburned areas.

The impact on California bay forest and woodland is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Chaparral

Chaparral communities lacking fire are subject to alterations in ecosystem dynamics, such as oak succession. Following fire, chaparral species are adapted to regenerate readily through basal sprouting or obligate seeding. However, the lack of fire promotes non-native species abundance and oak succession within chaparral communities. Woodrats often facilitate the spread of acorns within chaparral vegetation, where shrubs are utilized to build nests that are hidden and difficult to access by predators. Similarly, oak seedlings establish within manzanita, where it can avoid herbivory, and later outcompetes the manzanita and shades out the surrounding chaparral vegetation. Oaks are most prolific on north-facing aspects and lower slopes where more moisture is retained. Oak succession threatens to impair chaparral community occupancy across the landscape, ultimately influencing the overall health and vigor of native chaparral species.

The impact on chaparral is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

California Annual and Perennial Grassland

In the upper reaches of Tarwater Creek and Evans Creek within the boundary of PCCP, a portion of grassland, approximately 150-160 acres in size, occurs. Grasslands, or coastal prairies, are dominated by a nearly continuous cover of grasses and herbaceous species with little to no tree and shrub occupancy. Native grasslands can support a highly diverse composition of grasses, wildflowers, and sensitive species, offering unique habitat characteristics. Grasslands that lack wildfire often succumb to encroaching conifers, shrubs, and invasive species, such as thistles and bromes.

The impact on California annual and perennial grassland is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Pests, Disease, and Invasive Species

The implementation of SPR BIO-6 and BIO-9 will occur during work in riparian habitats, oak woodlands, or other sensitive natural communities to prevent the spread of invasive plants, noxious weeds, invasive wildlife, and plant pathogens. Common invasive plants and pathogens found in PCCP are discussed below:

French broom

French broom (*Genista monspessulana*) is a problematic invasive species due to its ignitability, ability to carry fire into tree canopies, shading out seedlings, and replacing the native plants and forage species. This species has a large seed bank and re-sprouts readily from the root after cutting, freezing, and fire (California Invasive Plant Council, Cal IPC, 2020). Cal IPC recommends pulling French broom to remove the entire plant including its roots to eliminate resprouting. The University of California Weed Research & Information Center (UCWRIC) recommends the following chemical treatments that may be applied: Glyphosate (Roundup and Roundup Pro Max), Imazapyr (Arsenal, Chopper, Habitat, Stalker, and Polaris), and Triclopyr (Garlon 3A and Garlon 4) 45. Application methods may vary between chemicals; however, the UCWRIC recommends cut stump and basal bark application immediately following the cut. The removal of this species is a priority due to its increased fire hazard and adverse impacts to habitat and aesthetics. Additional information about French broom control and treatments are located on the Cal IPC website.

Cape Ivy

Cape Ivy (*Delairea odorata*) is an invasive species that occupies over 500,000 acres in California, primarily occurring in coastal forests from Del Norte County to San Diego County. This invasive was introduced in California in the 1950s as an ornamental species. Cape ivy readily smothers other vegetation in its proximity, forming a solid cover over neighboring plants and blocking sunlight out. Large portions of cape ivy can easily take over plant and animal habitats, rendering protected natural reserves useless when occupied by the invasive. Cape ivy contains pyrrolizidine alkaloids such as retronecine that are known to be toxic to some insects and wildlife. Due to its shallow root system, cape ivy can contribute to substantial stream bank erosion when riparian areas are infested and colonized by the plant. Removal of cape ivy is difficult due to fragmenting of plant parts when pulled and its ability to grow from any remaining fragment of the invasive. Management is timing-based, as the plant produces rapid growth from February to June and experiences some dieback due to lack of constant water during July to October. Cal IPC recommends

management and control of cape ivy can be physical, biological, or chemical. Physical management involves the labor-intensive manual removal of both invasive and native plant material to gain visual and physical access to cape ivy stems. Roots and stems must be pulled from the ground by hand or with mini-rakes or hoes. Cape ivy tissue should not be put through a chipper, as it is likely to result in the spread of the invasive. Biological control of cape ivy is possible but still in development. Moth and beetle larvae, root-, stem-, and seed-feeding insects show promise as biocontrol agents of cape ivy but are not fully accepted as effective resources for control. Chemical control involves the use of herbicides to target the invasive, primarily a foliar-sprayed mixture of 0.5 percent glyphosate (as Roundup) + 0.5 percent triclopyr (as Garlon 4).

Sudden Oak Death

The pathogen, *Phytophthora ramorum* (*P. ramorum*), which causes the disease Sudden Oak Death (SOD), infects coastal forests throughout California and Oregon and kills susceptible species including tanoak, coast live oak, California black oak, Shreve oak, canyon live oak, and madrone saplings. PCCP is located within a zone of high-risk for SOD infection. Non-oak foliar host species that may occur within the project area include, but are not limited to, California bay laurel and Pacific madrone. Identification of the disease and infected individuals is paramount to preventing or minimizing the spread of the pathogen. In areas where infection is not apparent or confirmed, foliar or bark samples may be analyzed by trained specialists to confirm the presence of *P. ramorum*. All hand equipment and field gear, including boots, should be sanitized and heavy equipment should be hosed off prior to operations or when departing from areas where the spread of SOD is possible. The California Oak Mortality Task Force website contains additional information regarding diagnosis, treatment, and disposal measures for vegetation infected with SOD. SOD is present on PCCP property and effects of the disease have been observed in stands of heavy tanoak occupation, primarily on the north-facing slope of the park where pre-fire conditions offered moist, temperate conditions for pathogen transmission.

Phytophthora – Madrones

Mature Pacific madrone tree roots are susceptible to infection of two fungi, *Phytophthora cactorum* (*P. cactorum*) and *Phytophthora cinnamomi* (*P. cinnamomi*), responsible for root rot and the development of cankers at the base of the tree and along the tree trunk. *P. cactorum* is most common in the Pacific Northwest, whereas *P. cinnamomi* requires warmer temperatures and is more common throughout California. Both pathogenic fungi, like *P. ramorum*, require water to survive as spores in soils and running water or rain splash to spread, often infecting wounds or roots. Infected trees exhibit discolored, or dark brown to black, bark and/or sapwood and crowns display upper foliage loss and abnormally small leaves with curled margins or wilting. Where possible, mitigation for this disease can be implemented by reducing irrigation to madrones, avoiding concentrations of mulch at the base of susceptible trees, and pruning branch and twig cankers during initial establishment. Pruning should occur in dry conditions to avoid or lessen the chance of transmission between individual madrones.

Heterobasidion annosum (Fomes annosus) – Douglas-fir

Annosus root disease is caused by an infection of the fungus *Heterobasidion annosum* (*H. annosum*), previously named *Fomes annosus*, and is commonly referred to as root rot or butt rot. This root disease is responsible for group killing in conifers, such as pines or Douglas-fir. Airborne spores are released from

conks and germinate in fresh wounds, usually at the base of a tree or in cavities of stumps where it then spreads through the contact of root systems. Infected living trees often have basal conks in or near the duff layer that appear light gray to brown on the upper surface and creamy white to light brown on the porous underside. Popcorn conks, or tiny conks, are occasionally found growing under bark or on roots. Tree crown symptoms include shortened needles, needle retainment at the tips of branches, and chlorotic discoloration, all of which are generally expressed from the bottom and inside of the crown up and outward. Stunted or reduced growth is common in infected trees. Management strategies vary by host species; general management of annosus root disease is dependent on early detection and evaluation of infected trees. In recreational areas, early detection and removal of infected trees can reduce hazards caused by deterioration and may improve chances of prevention in residual trees. In pines and true fir, the USFS recommends that freshly cut stumps get treated with Sporax, a borax fungicide. PCCP has areas of Douglas-fir stands that may be susceptible to *H. annosum*.

Phellinus (Fomes) pini – Douglas-fir

Conifers along the Pacific Coast are susceptible to infection of the fungus *Phellinus (Fomes) pini* (*P. pini*), that is responsible for causing red ring rot. *P. pini* had been placed in several genera since the 1800's, subsequently giving it many taxonomic names, and is commonly recognized as *Fomes pini*. This fungus is commonly hosted in conifers like Douglas-fir, pines, larch, hemlocks, and true firs and primarily has the greatest impact on older forest stands. *P. pini* spores are carried by wind and germinate in wounds and on branch stubs. Trees infected with *P. pini* often exhibit exterior hoof-shaped to bracket-like perennial conks that are dull gray to brownish black on the upper surface with a light margin and a rich brown underside, often referred to as a cinnamon color. Interior heartwood decay appears from red to purple initially, then develops small pockets of white mycelium decay as it advances. Typically, the more conks that appear on a tree indicate increasing interior decay. Management practices for this disease include removing trees with conks and amounts of rot that may render them hazardous in recreational areas, avoid wounding trees, and remove infected trees prior to excessive interior decay occurring. *P. pini* may persist for a short period of time in slash, however, it does not rely on nourishment from decaying organic matter. In PCCP, this disease is most likely to impact mature Douglas-fir stands.

Addendum Impact BIO-3

The inclusion of land in the proposed treatment 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 treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments. This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses during implementation. For the reasons described, proposed revisions to SPR HYD-4 would not result in a substantially more severe significant effect related riparian habitat or other sensitive natural communities than what was covered in the PEIR.

Therefore, the potential impact on special-status wildlife is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-4

Manual, mechanical, prescribed burning, prescribed herbivory, and herbicide treatments during the initial and maintenance treatments could have adverse effects on state or federally protected wetlands, or the California Code of Regulations or the California Code of Regulations Title 14 (14 CCR), by increasing runoff and potentially discharging sediment to protected waters. Furthermore, herbicide application could result in advent contamination of designated wetlands as well. Additionally, prescribed broadcast burning could result in direct removal of wetland vegetation that could adversely modify effects to state or federally protected wetlands was examined in the PEIR (CalVTP Final PEIR Volume Section 3.6, Pages 191-192). The majority of the aquatic habitat in the vicinity of the treatment area, including wetlands that could be state or federally protected has been excluded from the treatment area. Wetlands that do fall within the treatment areas will be identified via SPR BIO-1 and protected appropriately via SPR HYD-4.

However, during field and data verification per SPR BIO-1 and protection measures per HYD-4, three locations were identified in the National Wetlands Inventory Surface Waters and Wetlands⁵. These include two wetlands classified as freshwater forested/shrub wetlands totaling 4.51 acres and one wetland classified as a freshwater emergent wetland totaling 0.77 acres. Since these locations fall within the prescribed burn plot boundaries, where wetlands cannot be avoided, MM BIO-4 would be applied, which dictated the prescribed burning can be implemented in wetlands habitats if an appropriate buffer is demarcated around the wetland and it is deemed by a qualified RPF or biologist that 1) no special status treatment are present 2) the wetland habitat function will be maintained 3) the prescribed burn operations would occur within the normal fire return interval for the wetland vegetation types present, 4) fire containment lines and pile burning are not implemented with the buffer, and 5) that no fire ignition will occur within the wetland buffer. In addition to SPRs BIO-1 and HYD-4, SPRS BIO-2 GEO-1, GEO-3 GEO-4, GEO-5, GEO-7, HYD-1, HYD-3, HYD-4 will be applied.

The potential of treatment activities to result in adverse effects on state protected or federally protected wetlands was examined in the PEIR. The impact on wetlands is within the scope of the PEIR because the treatment activities and levels of disturbance are consistent with those analyzed within the PEIR. Based on the Implementation of the applicable PSR's and MM this impact would remain less than significant.

Addendum Impact BIO-4

The inclusion of land in the proposed project treatment area that are outside of the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape.

As described in Section 1.2, "Proposed Project Revisions," SMCP proposes revisions to SPR HYD-4 and SPR GEO-1. WLPZs will be established only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory, and herbicide treatments. Mechanical, herbivory, and herbicide

⁵ [National Wetlands Inventory Surface Waters and Wetlands](#)

treatments will also be suspended if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical activities. This revision aligns with the original intent of SPR HYD-4 and SPR GEO-1 to protect watercourses during implementation and prevent soil disturbance, increased runoff, soil destabilization, and water quality impacts, respectively. For the reasons described, proposed revisions to SPR HYD-4 and SPR GEO-1 would not result in a substantially more severe significant effect relative to state or federally protected wetlands than what was covered in the PEIR.

Therefore, the potential impact on wetlands is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

Impact BIO-5

Initial and maintenance treatments include the use of manual, mechanical, prescribed fire, and prescribed herbivory could cause directly or indirectly adverse effects to wildlife movement corridors and nurseries because suitable habitat is present within the treatment area. The potential for treatment activities to result in adverse effects to wildlife was examined within the PEIR (CalVTP Final PEIR Volume II Section 3.6, pages 193-197). The potential for adverse effects to wildlife movement corridors and nurseries is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and level of disturbance because of the treatment activities are consistent with those analyzed in the PEIR.

The proposed treatment may contain essential connectivity areas for ungulate species and mountain lions, as well as habitat for breeding sites or cover. The project proposed the use of mechanical treatments outside of the WLPZ and will comply with overstory cover requirements in the riparian areas (SPR BIO-4 and HYD-4). SPR HYD-1 complies with water quality regulations. SPR BIO-1 requires a reconnaissance-level survey of the proposed treatment site to determine whether there is potential for wildlife nurseries to occur. If it is determined that wildlife nurseries may occur, then SPR BIO-10 requires surveys for nursery sites. When conducting prescribed herbivory, SPR BIO-11 requires wildlife-friendly fencing preventing wildlife from entanglement. SPRs applicable to this proposed project impact include SPR BIO-1, BIO-4, BIO-5, BIO-10, BIO-11, HYD-1, and HYD-4. Even with implementation of the previously stated SPRs, important nursery sites could be removed, degraded or disturbed, by treatment activities including prescribed broadcast burning and removal of midrange diameter trees. For this reason, MM BIO-5 will be implemented to retain and avoid nursery habitat through the establishment of buffers when necessary. Based on the implementation of SPRs and MM BIO-5 which retain known nursery sites and establish avoidance buffers, it is likely that any impact to wildlife movement corridors and nurseries would be less than significant.

Addendum Impact BIO-5

The inclusion of land in the proposed project treatment area that are outside of the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments.

This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses during implementation. For the reasons described, proposed revisions to SPR HYD-4 would not result in a substantially more severe significant effect related to wildlife movement corridors and nurseries than what was covered in the PEIR.

Therefore, the potential impact to wildlife movement corridors and nursery sites is essentially the same as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

Impact BIO-6

Initial and maintenance treatments including the use of manual, mechanical, prescribed fire, prescribed herbivory, and herbicide could result in direct or indirect aftereffects to the habitat or abundance of common nesting wildlife, including nesting birds and bats, because suitable habitat is present within the treatment area. The potential for treatment activities to result in adverse effects to habitat and abundance of wildlife was addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.2, pages 197-199). The potential for adverse effects to common wildlife, including nesting birds and bats, is within the scope of activities and impacts addressed in the PEIR because the treatment activities and level of disturbance are consistent with those analyzed in the PEIR. The implementation of SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, and BIO-12 will reduce the risk of this project resulting in adverse effects to habitat and the abundance of common wildlife.

Nesting bird and bat roost surveys will be required from February 1st to August 31st and must occur no more than three days prior to starting work. If a lapse in work of 7 days or longer occurs, another focused survey will be conducted before work can be reinitiated. Surveys shall be conducted prior of any manual or mechanical operation in treatment areas by SMCP, San Mateo RCD or their supervised designee to determine if nesting activity is occurring. If no active bird nests are observed during focused surveys, then additional measures will not be required. If active nests of common birds or raptors are observed during focus surveys, feasible impact avoidance strategies will be implemented to avoid disturbance to the nest, as described in SPR BIO-12. Feasible impact avoidance strategies include establishing appropriate buffers, modifying treatment to avoid disturbance, and deferring treatment until the nest is no longer active as determined by a qualified RPF or biologist. Buffers will be based upon individual species life history. For non-raptors, buffers will typically be between 50-300 feet and 500 feet or greater for raptors. Based on the survey protocol and the implementation of applicable SPRs, it is likely that the impact to the loss of habitat or abundance of wildlife, including nesting birds, would be less than significant.

Addendum Impact BIO-6

The inclusion of lands in the proposed project treatment area that are outside of the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR however, within the boundary of the treatment area, general habit characteristics are essentially the same within the outside the treatable landscape.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments. This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses

during implementation. For the reasons described, proposed revisions to SPR HYD-4 would not result in a substantially more severe significant effect related to substantially Reduce habitat or abundance of common wildlife than what was covered in the PEIR.

Therefore, no impact is expected to occur, as described above. Therefore, the potential impact to habitat reduction or abundance of common wildlife is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

Impact BIO-7

The potential for initial and maintenance treatment activities to result in conflict with local policies or ordinances was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, page 199). The potential for the proposed project to conflict with local policies or ordinances is within the scope of the activities and impacts addressed in the PEIR because the treatment projects implemented under the CalVTP are required to complete with any applicable county, city, or other local polices, ordinances, and permitting procedures (SPR AD-3) and are consistent with those analyzed in the PEIR.

Addendum Impact BIO-7

The inclusion of lands in the proposed project treatment area that are outside the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area the local policies and ordinances that apply are the same within and outside the treatable landscape. Therefore, no impact is expected to occur, as described above. Therefore, the potential impact to local policies or ordinances is no impact, as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

Impact BIO-8

The proposed project treatments are located outside of any habitat conservation plans (HCP) or natural community conservation plans (NCCP). Therefore, this project would not conflict with HCP's or NCCP's and no impact is expected to occur.

Addendum Impact BIO-8

The inclusion of lands in the proposed project treatment area that are outside the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area the habitat conservation plans, or community conservation plans that apply are the same within and outside the treatable landscape. Therefore, the potential impact to local policies or ordinances is no impact, as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

New Biological Resource Impacts

The proposed project 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 that they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.6.1 and 3.6.2).

PSA Addendum - New Biological Resource Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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 treatment 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 considered in the PEIR. No changed circumstances are present, and the inclusion of areas outside the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to biological resources would occur.

4.6 Geology, Soils, Paleontology, and Mineral Resources

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

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact GEO-1

Initial and maintenance treatments including manual, mechanical, prescribed burning and prescribed herbivory have the potential for these treatment activities to cause substantial erosion and loss of topsoil. The potential for these treatment activities to cause substantial erosion or loss of topsoil was examined in the PEIR (CalVTP Final PEIR Volume II section 3.7.3 pages 27-30). The treatment area contains steep slopes, where geomorphic features indicate the area is susceptible to landslides and landslides may have historically occurred in the area (California Department of Conservation, 2023). The potential impacts are within the scope of the PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR. Specific SPRs that apply include SPR GEO-1 through SPR GEO-8, HYD-3, HYD-4, and AQ-3 which will avoid and minimize the risk of substantial erosion and loss of topsoil. Equipment will be operating and mobilizing to units on slopes equal to or less than 50%. The average slope throughout the mechanized treatment areas is approximately 20-30%. Additionally, operations will not occur while soils

are saturated to avoid disturbance caused by the removal of vegetation. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact GEO-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the soil characteristics of the project area are essentially the same within and outside the treatable landscape.

As described in Section 1.2, "Proposed Project Revisions," SMCP proposes revisions to SPR HYD-4 and SPR GEO-1. WLPZs will be established only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory, and herbicide treatments. Mechanical, herbivory, and herbicide treatments will also be suspended if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical activities. This revision aligns with the original intent of SPR HYD-4 and SPR GEO-1 to protect watercourses during implementation and prevent soil disturbance, increased runoff, soil destabilization, and water quality impacts, respectively. For the reasons described, proposed revisions to SPR HYD-4 and SPR GEO-1 would not result in a substantially more severe significant effect related to special-status plant species than what was covered in the PEIR.

Therefore, no impact is expected to occur, as described above. Therefore, the potential impact to soil erosion and loss of top soil is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

Impact GEO-2

Initial and maintenance treatments would include vegetation removal in areas with steep slopes, which could decrease the stability of slopes and increase the risk of landslides. The potential for treatment activities to increase landslide risk was examined in the PEIR (CalVTP Final PEIR Volume II section 3.7.3 pages 29-30). The prescription for these treatments limits mechanical operation to slopes equal to or less than 50%. Equipment will not operate on saturated soils to avoid disturbances caused by the removal of vegetation. The implementation of applicable SPRs include SPR GEO-3, GEO-4, GEO-7, GEO-8 and AQ-3, which will avoid and minimize the risk of substantial erosion and loss of topsoil. All equipment will be operating on or accessing treatment areas on slopes equal to or less than 50%. The average slope throughout the mechanized treatment areas is approximately 20-30%. Additionally, operations will not occur while soils are saturated to avoid disturbance caused by the removal of vegetation. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact GEO-2

The inclusion of land in the proposed treatment 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 range of slopes and landslide conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape. Therefore, the potential impact related to landslide risk is also less than significant, as described above. The 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.

New Geology, Soils, Paleontology, and Mineral Resource Impacts

The proposed treatment is consistent with the treatment types and activities 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 PEIR (CalVTP Final PEIR Volume II Sections 3.7.2 and 3.7.2).

PSA Addendum - New Geology, Soils, Paleontology, and Mineral Resource Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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 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. 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 geology and soils would occur.

4.7 Greenhouse Gas Emissions

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs	LTS	Impact GHG-1, pp. 3.8-10 – 3.8-11	Yes	GHG-1	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

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[Identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Impact GHG-1

Initial and maintenance treatments include the use of manual and mechanical equipment, herbicide, prescribed burning, and prescribed herbivory 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 pages 10-11). The proposed project is consistent with all applicable plans, policies, and regulations related to the purpose of reducing GHG emissions and treatment activities are consistent with those analyzed in the PEIR. Per SPR GHG-1, the project proponent will provide all necessary data required by the USFS and FRAP to fulfill AB 1504. The project impacts relating to the consistency of treatments with applicable plans, policies, regulations will remain less than significant.

PSA Addendum Impact GHG-1

The inclusion of land in the proposed treatment 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 same plans, policies, and regulations adopted to reduce GHG emissions apply in the areas outside the treatable landscape, as well as areas within the treatable landscape; therefore, the GHG impact is also less than significant, as described above.

Impact GHG-2

Initial and maintenance treatments include the use of mechanical equipment, pile burning and broadcast burning, which 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). In the long term, treatment activities are expected to have carbon sequestration benefits and are intended to reduce the risk of wildfire, which would decrease the projected GHG emissions. With anticipation of using prescribed burning as a treatment activity, MM GHG-2 applies to the project. This will require the project proponent to incorporate all feasible methods for reducing GHG emissions during the prescribed burning operations. Moreover, the project proposes utilizing Air Curtain Burners (ACBs) to incinerate the cut woody material. ACBs are designed for ideal combustion efficiency, resulting in minimal black carbon emissions and maintaining a carbon-neutral operation. The primary aim of ACBs is to reduce the particulate matter generated from burning wood waste. US Forest Service technical analyses have shown that ACBs are effective in reducing PM2.5 emissions compared to open burning (Sandberg, Ottmar, & Peterson, 2002) . All ACB use will meet U.S. EPA standards and will comply with local permitting requirements. SPR AQ-3 would also be applied to this treatment and will contain the description of feasible GHG reduction techniques implemented per MM GHG-2. Based on the implementation of the applicable SPRs and MM GHG-2, project GHG emissions may be reduced through best management practices including, but not limited to, the retention of large fuels (e.g., large logs, snags) to reduce the total area burned and scheduling burns to occur before new fuels appear; however, the PEIR acknowledges the uncertainties and potential for net positive emissions over time. Therefore, this impact would remain potentially significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR volume II Section 3.8.3, pages 11-17).

PSA Addendum Impact GHG-2

The inclusion of land in the proposed treatment 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 climate conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the GHG impact is also potentially significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Impacts Related to GHG Emissions

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered 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 Section 3.8.1 and 3.8.2). No new impact related to GHG emissions would occur.

PSA Addendum New Impacts Related to GHG Emissions

The project proponent has also determined that the inclusion of land in the proposed treatment 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 existing environmental conditions pertinent to the climate conditions 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 GHG emissions would occur.

4.8 Energy Resources

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

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact ENG-1

Initial and maintenance treatment demands the consumption of energy through the use of chainsaws, mechanical equipment, and other mechanized hand tools, and transporting personnel to and from the work site. The potential for impacts to the 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 the project treatment activities 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. No SPRs or MMs are applicable to this impact. Based on the nature of the proposed treatments and consistency with the scope of the PEIR, this impact remains less than significant.

PSA – Addendum Impact ENG-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the existing energy consumption is essentially the same within and outside the treatable landscape; therefore, the energy impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

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). No new impact to energy resources would occur that is not covered in the PEIR.

PSA Addendum - New Energy Resource Impacts

The project proponent has also determined that the inclusion of the land outside of the treatable landscape in the proposed treatment 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 present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape therefore, the impacts of the proposed treatment activities are also consistent with those analyzed in the PEIR. No changed circumstances would lead to significant impacts not addressed in the PEIR. Therefore, no new impact to energy resources would occur that is not covered in the PEIR.

4.9 Hazardous Materials, Public Health and Safety

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact HAZ-1, 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 HAZ-9	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	NA	HAZ-3	LTSM	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Impact HAZ-1

Initial and maintenance treatments would include the use of manual, mechanical, prescribed fire, and herbicide, some of which require the use of hazardous material. The potential for treatment activities to create 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). The potential impacts related to the use of fuels during treatment types, equipment, and types of hazardous materials to be used are consistent with those analyzed within the PEIR. Any hazardous materials and emissions would result from the use of diesel fuel, chainsaw and mechanized had tool fuel, and chainsaw bar oil; these materials will be transported and stored in appropriate containers. Prescribed fire operations may utilize drip torches, fuzees, helitorch another common form of ignition starts for prescribed fire. Ariel ignition may include use of a helitorch

which requires mixing of either gasoline and or gasoline/diesel mixture as well as thickening agent. All fuel mixtures (diesel/gasoline) for handheld ignitions will be pre-mixed off site, typically at a local work yard and brought to the site. Drip torches and other ignition equipment will be inspected for leaks and put out of service or repaired as needed. All personnel will wear personal protective equipment (PPE) and will be properly trained in how to use equipment. All equipment associated with the project will comply with SPR HAZ-1 to ensure proper maintenance and to minimize leaks. Additionally, all mechanized tools will have spark arrestors and will be implemented to minimize the risk of potential ignitions, per SPR HAZ-2. Herbicide application will be discussed under Impact HAZ-2 below. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact HAZ-1

The inclusion of the land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR, However, the exposure potential and regulatory conditions are essentially the same within and outside of the treatable landscape.

In addition, as described under section 1.2, "Proposed Project Revisions," SMCP proposed to revise SPR HAZ-1, which applies to this impact. SPR HAZ-1 is revised for any leaking equipment to be promptly stabilized, removed from the project area and allowed to be fixed onsite, outside of WLPZs. Proposed revisions to SPR HAZ-1 would not result in any new or substantially more severe effects related to creating significant health hazard from the use of hazardous material than what was covered in the PEIR.

Therefore, the hazard material impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HAZ-2

Initial and maintenance treatments for this project may utilize herbicides to treat sprouting exotic, invasive vegetation in previously treated locations. The potential for these treatment activities to create a significant health hazard were evaluated in the PEIR (CalVTP PEIR Vol II Section 3.10.3, pages 16-18). The potential impacts related to the use of herbicide during the treatment activities are within the scope of the activities and impacts analyzed in the PEIR because the application methods and herbicides used are consistent with those outlined in the PEIR.

As per the CalVTP, herbicide treatments will be limited to ground-based application and must comply with all Environmental Protection Agency (EPA) label directions. According to the PEIR Table 3.10-1, the herbicides proposed under the CalVTP pose low levels of toxicity to humans (CalVTP Final PEIR Volume II Section 3.10.3 Table 3.10-1, page 16-17). In addition, the proposed project treatments will comply with SPR HAZ-5 through HAZ-9, which requires the following: a Spill Prevention and Response Plan will be prepared prior to any herbicide treatment activities (SPR HAZ-5), compliance to herbicide application regulations including permitting and licensing through the San Mateo County Agricultural Commissioner's office prior to herbicide application (SPR HAZ-6), triple rinse herbicide containers and dispose of rinsed materials at an approved site (SPR HAZ-7), minimize herbicide drift into public areas through application parameters such as limitations for nozzle pressure and nozzle distance from vegetation (SPR HAZ-8), and notification of herbicide within 500 feet of public areas including posting signs on either side of herbicide treatment areas (SPR HAZ-9). Based on compliance to regulatory requirements and SPRs in addition to utilizing low-level toxicity herbicides proposed under the PEIR, the potential for this project to result in significant health hazard from the use of herbicides is less than significant.

PSA Addendum - Impact HAZ-2

The inclusion of the land in the proposed treatment area that is outside of the treatable landscape that is outlined in the CalVTP constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside of the treatable landscape; therefore, the hazardous materials impact is also less than significant, as described above.

Impact HAZ-3

Initial and maintenance treatments proposed under this project include mechanical treatment and prescribed burning treatment activities which have the potential to disturb soils and expose workers, the public, or environmental hazards 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 environmental hazardous materials was examined in in the PEIR (CalVTP Final Volume II Section 3.10.3, pages 18-19). No SPRs are applicable to this impact. As directed by MM HAZ-3, database searches for hazardous material were performed utilizing the Department of the Toxic Substances Control (DTSC) Cortese List as well as the DTSC EnviroSource web search. Based upon records, this impact is reduced to less than significant.

PSA Addendum - Impact HAZ-3

The inclusion of land in the proposed treatment 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 potential to encounter hazardous materials and the regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the hazardous materials impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Hazardous Materials, Public Health and Safety Impacts

The initial and maintenance treatments proposed for this project are consistent with the treatment types and activities analyzed in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.10.1 and 3.10.2).

PSA Addendum - New Hazardous Materials, Public Health and Safety Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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 existing environmental and regulatory conditions pertinent to hazardous materials 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 hazardous materials, public health, or safety would occur

4.10 Hydrology and Water Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact HYD-1: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Prescribed Burning	LTS	Impact HYD-1, pp. 3.11-25 – 3.11-27	Yes	HYD-1 HYD-4 GEO-4 GEO-6 AQ-3	NA	LTS	No	Yes
Impact HYD-2: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Manual or Mechanical Treatment Activities	LTS	Impact HYD-2, pp. 3.11-27 – 3.11-29	Yes	HYD-1 HYD-2 HYD-4 HYD-6 GEO-1 GEO-2 GEO-3 GEO-4 GEO-7 GEO-8 HAZ-1	NA	LTS	No	Yes
Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory	LTS	Impact HYD-3, p. 3.11-29	Yes	BIO-1 BIO-4 GEO-1 GEO-3 GEO-4 GEO-7 HAZ-1 HYD-1 HYD-2 HYD-3 HYD-4 HYD-6	NA	LTS	No	Yes
Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the	LTS	Impact HYD-4, pp. 3.11-30 – 3.11-31	Yes	HYD-1 HYD-5 HAZ-5 HAZ-6 HAZ-7 HAZ-8	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?
Would the project:								
Implementation of a Water Quality Control Plan Through the Ground Application of Herbicides				BIO-4				
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5, p. 3.11-31	Yes	HYD-1 HYD-2 HYD-3 HYD-4 HYD-6 GEO-1 GEO-2 GEO-5	NA	LTS	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact HYD-1

Initial and maintenance treatments would include the use of prescribed fire implemented through pile and broadcast burning. There is the potential for ash and other debris from the treatment area to be washed out by runoff into adjacent drainages and streams. Broadcast burning implemented under the proposed project would be conducted when fuel moisture environmental conditions allow for effective understory and ladder fuel control, while reducing the risk of high severity burns. With the implementation of SPR HYD-4, no burn piles or fire ignition will be allowed in the water course and lake protection zone (WLPZ). The potential for prescribed burning activities to cause runoff and violate water quality regulations or degrade water quality was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 25-27). This impact is within the scope of the PEIR because the use of low-intensity prescribed burns and associated impacts to water quality are consistent with those analyzed in the PEIR. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact HYD-1

The inclusion of land in the proposed treatment 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.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments. This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses during implementation. For the reasons described, proposed revisions to SPR HYD-4 would not result in a substantially more severe significant effect related to water quality through prescribed burning than what was covered in the PEIR.

Therefore, the water quality impact from prescribed burning is also less than significant, as described above. The proposed treatment activities do not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-2

Initial and maintenance treatments would include the use of manual and mechanical vegetation removal, which have the potential to result in ground disturbance and subsequent erosion and runoff. The potential for mechanical treatments to violate water control regulations or degraded water quality was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 27-28). Although most treatment areas utilizing manual and mechanical treatments have been designed to avoid streams and watercourses, WLPZs ranging from 50-150 feet will be established around any watercourses that are within the treatment areas, per SPR HYD-4. Potential impacts are within the scope of the activities and impacts evaluated in the PEIR because the use of equipment and associated impacts to water quality are consistent with those analyzed in the PEIR. The centerline of Class III watercourses shall be flagged prior to operations where equipment could potentially cross a Class III due to the project proximity and slope. Equipment exclusion zones of 30' for slopes less than 30% and 50' for slopes greater than 30% shall be adhered to in this proposed project. Additionally, the project proponent will implement SPRs GEO-1 through GEO-5, GEO-7, GEO-8, BIO-1, HAZ-1, HYD-1, HYD-4. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact HYD-2

The inclusion of land in the proposed treatment 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.

As described in Section 1.2, "Proposed Project Revisions," SMCP proposes revisions to SPR HYD-4, SPR GEO-1, and SPR HAZ-1. WLPZs will be established only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory, and herbicide treatments. Mechanical, herbivory, and herbicide treatments will also be suspended if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical activities. Any leaking equipment will be promptly stabilized, removed from the project area and allowed to be fixed onsite, outside of WLPZs. This revision aligns with the original intent of SPR HYD-4, SPR GEO-1, and SPR HAZ-1 to protect watercourses during implementation, prevent soil disturbance, increased runoff, soil destabilization, and water quality impacts. For the reasons described, proposed revisions to SPR HYD-4, SPR GEO-1, SPR HAZ-1 would not result in a substantially more severe significant effect related to violate water quality regulations or degrade water quality than what was covered in the PEIR.

Therefore, the water quality impact from manual and mechanical treatments is also less than significant, as described above. This impact is within the scope of the PEIR because the use of heavy equipment and hand-tools to remove vegetation and associated impacts to water quality are consistent with those analyzed in the PEIR. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-3

Initial and maintenance treatments may include the use of prescribed herbivory which has the potential to degrade surface or groundwater quality. The potential for prescribed herbivory treatments to violate water quality was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 27-28). Although most treatment areas utilizing prescribed herbivory best practices in SPR HYD-3 which exclude livestock from environmentally sensitive areas such as waterbodies, wetlands, or riparian areas. Temporary fencing or active heading will maintain a 50' buffer from sensitive and actively grazed areas. Water will be provided for grazing animals in the form of portable water source located outside of environmentally sensitive areas. Treatment prescriptions will be designed to protect soil stability. Grazing animals will be headed out of an area if accelerated soil erosion is observed to protect soil stability. Additionally, the project proponent will implement SPRs BIO-1, BIO-4, GEO-1, GEO-3, GEO-4, GEO-7 HAZ-1, HYD-1 though HYD-4, and HYD-6.

PSA Addendum - Impact HYD-3

The inclusion of land in the proposed treatment 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.

As described in Section 1.2, "Proposed Project Revisions," SMCP proposes revisions to SPR HYD-4, SPR GEO-1, and SPR HAZ-1. WLPZs will be established only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory, and herbicide treatments. Mechanical, herbivory, and herbicide treatments will also be suspended if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical activities. Any leaking equipment will be promptly stabilized, removed from the project area and allowed to be fixed onsite, outside of WLPZs. This revision aligns with the original intent of SPR HYD-4, SPR GEO-1, and SPR HAZ-1 to protect watercourses during implementation, prevent soil disturbance, increased runoff, soil destabilization, and water quality impacts. For the reasons described, proposed revisions to SPR HYD-4, SPR GEO-1, SPR HAZ-1 would not result in a substantially more severe significant effect related to violating water quality regulations or degrading water quality than what was covered in the PEIR. For the reasons described, proposed revisions to SPR HYD-4, SPR GEO-1, SPR HAZ-1 would not result in a substantially more severe significant effect related to prescribed herbivory degrading surface or ground water quality than what was covered in the PEIR.

Therefore, the water quality impact from prescribed herbivory treatments is also less than significant, as described above. This impact is within the scope of the PEIR because the use of prescribed herbivory to remove vegetation and associated impacts to water quality are consistent with those analyzed in the PEIR. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-4

Maintenance and treatments proposed for this project would include the use of herbicides to manage exotic, invasive plant growth following initial treatment activities, which can affect the water quality through runoff, leaching, drift, and misapplication or spills. The potential for herbicide application activities to

violate water quality control standards or wastewater quality control standards or waste discharge requirements, substantially degrade surface or groundwater quality, or conflict with or obstruct the implementation of water quality control plan through the ground application of herbicides was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 29-30). Potential impacts are within the scope of the activities and impacts addressed in the PEIR because the methods of herbicide application, transportation, storage, and disposal are consistent with those analyzed in the PEIR. Under the CalVTP herbicide treatment activities are limited to ground-level application by hand (SPR BIO-4) and compliance to EPA labels is required. SPR HYD-5 prohibits non-aquatic herbicide formulations from being applied within 50 feet of a waterbody or riparian area and prohibits application during precipitation or within 24 hours of forecasted precipitation. The majority of proposed treatments areas are located outside of any WLPZ's. SPR HAZ-5 mandates a Spill Prevention and Response Plan which will be created prior to herbicide treatments. Additionally, all herbicide containers must be triple rinsed and hazardous waste materials must be disposed of at an approved site (SPR HAZ-7). Based upon compliance with EPA labels and SPR limitations, the potential for this project to result in a violation of water quality standards or waste discharge requirements, substantially degrading surface or ground water quality, or conflict with or obstruct the implementation of a water quality control plan through the ground application of herbicides is less than significant; a determination consistent with the PEIR.

PSA Addendum - Impact HYD-4

The inclusion of land in the proposed treatment 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.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments. This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses during implementation. For the reasons described, proposed revisions to SPR HYD-4 would not result in a substantially more severe significant effect related to herbicide affecting water quality than what was covered in the PEIR.

Therefore, the water quality impact from herbicide use is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-5

Initial and maintenance treatments proposed for this project include the use of mechanical treatments, prescribed burning and prescribed herbivory which could result in ground disturbance. The potential for mechanical treatments, prescribed burning and prescribed herbivory 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). The potential impacts are within the scope of the PEIR because the equipment and treatment activities are consistent with those addressed in the PEIR. SPRs applicable to this treatment are HYD-4, HYD-6, GEO-1, GEO-2, and GEO -5 which limit operations during heavy precipitation, limit high ground pressure vehicles, require the installation of water breaks to drain stormwater, and require identification and protection of WLPZs, and protect existing drainage systems. With the application of these SPRs, the proposed project remains less than significant; a determination consistent with the PEIR.

PSA Addendum - Impact HYD-5

The inclusion of land in the proposed treatment 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.

In addition, as described under Section 1.2, "Proposed Project Revisions," SMCP proposes to revise SPR HYD-4, which applies to this impact. SPR HYD-4 is revised to establish WLPZs only for watercourses within 300 feet of manual, mechanical, prescribed pile burning, prescribed herbivory and herbicide treatments. This revision is consistent with the original intent of SPR HYD-4 to prevent degradation of watercourses during implementation. For the reasons described, proposed revisions to SPR HYD-4 and SPR GEO-1 would not result in a substantially more severe significant effect related to substantially alter the existing drainage pattern of a treatment site or area than what was covered in the PEIR.

Therefore, the impact related to alteration of site drainage patterns is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Hydrology and Water Quality 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 (CalVTP Final PEIR Volume II Sections 3.11.1 and 3.11.2).

PSA Addendum - New Hydrology and Water Quality Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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 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. 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 hydrology and water quality would occur.

4.11 Land Use and Planning, Population and Housing

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	LTS	Impact LU-1, 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	NA	NS	LTS	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Impact LU-1

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). The treatment types and activities are within the scope of those evaluated in the PEIR. The project will adhere to SPR AD-3 which requires project proponent to design and implement treatment activities in a manner that is consistent with applicable local plans, polices and ordinances. The project area is not within the coastal zone, so it is not subject to the California Coastal Act. Based on the implementation of SPR AD-3, this project is consistent with the PEIR and this impact would remain less than significant.

PSA Addendum - Impact LU-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the PEIR. However, land uses in the project area are essentially the same within and outside the treatable landscape; therefore, the land use impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

Impact LU-2

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). Impacts associated with short-term increases in the demand for workers during implementation of the treatments is consistent with (less than) the crew size analyzed in the PEIR for the types of treatments proposed. Prescribed burning treatment activities would require between 10 and 50 crew members, depending on the size of the burn unit. Mechanical treatments would typically be completed by crews of four and 20 staff. Herbicide treatments typically would occur with crews of two to 20 people, and manual treatments would be implemented by crews of approximately four to 20 crew members. Employing local contractors will be encouraged where feasible to minimize the risk of impacting population and housing resources. No SPRs are applicable to this impact. Based on the consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact LU-2

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the population and housing characteristics of the project area are essentially the same within and outside the treatable landscape; therefore, the population and housing impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

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).

PSA addendum - New Land Use and Planning, Population and Housing Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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.

4.12 Noise

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1, pp. 3.13-9 – 3.13-12; Appendix NOI-1	Yes	AD-3 NOI-1 NOI-2 NOI-3 NOI-4 NOI-5 NOI-6	NA	LTS	No	Yes
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	Yes	NOI-1	NA	LTS	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion			
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant			
[Identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Impact NOI-1

Initial and maintenance treatments proposed for this project include manual, mechanical, prescribed fire, prescribed herbivory 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 PEIR Volume II Section 3.13.3, pages 9-11). Short term increase in noise from the use of heavy equipment is within the scope of the activities and impacts addressed in the PEIR because the types and number of equipment proposed as well as the duration of use are consistent with those analyzed in the PEIR. First SPR AD-3 applies to the project requiring that treatments are designed to adhere to applicable local plans, polices, and ordinances. Additionally, SPRs NOI 1-NOI 6 apply, which include the following measures: limiting heavy equipment use to daytime hours; ensuring all powered treatment equipment and power tools are used and maintained properly; keeping engine shrouds closed during equipment operation; locating staging areas away from nearby noise-sensitive land uses; shutting down all motorized equipment when not in use; and considering noise-sensitive receptors located within 1,500 feet of the treatment

activity. Based on implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact NOI-1

The inclusion of land in the proposed treatment 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 exposure potential (i.e., lack of sensitive receptors) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the noise impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact NOI-2

Initial and maintenance treatments proposed for this project will require the use of large trucks hauling heavy equipment to and from the project site, masticators, chainsaws, and other noise-generating equipment. In route to the project site, the equipment will be transported past residential receptors, this potential for impact was examined, and within the scope of the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, page 12) for a substantial short-term increase in Single-Event Noise Levels (SENL). Short-term increases in noise from the use of heavy equipment during project implementation is within the scope of the treatment activities and impacts addressed in the PEIR because the number and types of equipment proposed are consistent with those analyzed in the PEIR. Applying SPR NOI-1 restricts treatment activities to daytime hours, which San Mateo County defines as 7:00 am to 6:00 pm, Monday through Friday, or 9:00 am to 5:00 pm on Saturdays under SMC PRC Sec. 4.88.360(e). Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact NOI-2

The inclusion of land in the proposed treatment 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 exposure potential is essentially the same within and outside the treatable landscape; therefore, the noise impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Noise Impacts

The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the regulatory and environmental setting conditions addressed in the PEIR (CalVTP Final PEIR Volume II Sections 3.13.1 and 3.13.2).

PSA Addendum - New Noise Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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 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.

4.13 Recreation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	LTS	Impact REC-1 pp. 3.14-6 – 3.14-7	Yes	AD-3 REC-1	NA	LTS	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Impact REC-1

The initial and maintenance treatments proposed for this project may result in conflicts with recreationalists due to the potential or limited park access, degradation of views, decreased air quality, as well as traffic during treatment implementation. 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 the 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. To maintain consistency with local plans, policies, and ordinances (SPR AD-3), the recreational area closure will be posted two weeks prior to the start of treatment activities (SPR REC-1). During prescribed broadcast burn operations, environmental prescriptions for operations may not allow a two-week notice of trail closure, however, the project proponent will provide as much advanced notice as feasible. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact REC-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the availability of recreational resources within the project area is essentially the same within and outside the treatable

landscape; therefore, the impact to recreation is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

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 (CalVTP Final PEIR Volume II Section 3.14.1 and 3.14.2).

PSA Addendum - New Recreation Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment 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.

4.14 Transportation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Section 3.15.2; Impact TRAN-1 pp. 3.15-9 – 3.15-10	Yes	TRAN-1 AD-3	NA	LTS	No	Yes
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	HYD-2 TRAN-1 AD-3	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	NA	AQ-1	PSU	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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). A Traffic Management Plan (TMP) will be developed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable San Mateo County Department of Public Works standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities. The proposed treatment project would be short-term and temporary increase in traffic related to treatments

are within the scope of the activities and impacts addressed in the PEIR because the treatment duration and number of vehicles is consistent with those analyzed in the PEIR. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact TRAN-1

The inclusion of land in the proposed treatment 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 existing transportation conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact TRAN-2

Initial and maintenance treatments proposed for this project would not require the construction or alteration of any roadways; however, the proposed treatments do include prescribed burning which has the potential to produce smoke and affect visibility along nearby county-maintained roadways that may include, but are not limited to, Pescadero Road, Alpine Road, and Wurr Road in a manner that could create transportation hazards. The potential for smoke to affect visibility along roadways during implementation of treatment activities examined in the PEIR (CalVTP Final PEIR Volume II Sections 3.15.3, pages 10-11). This impact is within the scope of the PEIR because of the equipment and methods used for prescribed burning which are consistent with those analyzed in the PEIR. SPRs HYD-2, AD-3, and TRAN-1 are all applicable to this treatment. The construction of new roads, consistency with local plans policies and regulations, and smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. Based on the implementation of the applicable SPRs and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum - Impact TRAN-2

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area the existing transportation conditions (e.g. roadways and road use) present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than was covered in the PEIR.

Impact TRAN-3

Initial and maintenance treatments have the potential to increase in vehicle miles traveled (VMT) above the 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 the 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 deemed to have an impact that is less than significant to transportation impacts (OPR 2018). The highest VMT is expected at the beginning and end of project activities, particularly on days when broadcast burning is scheduled. Maximum daily VMT would involve transporting fire suppression equipment, hand crews, and heavy machinery to and from the project site, but the number of trips would remain below 110. Additionally,

hiring local contractors will be encouraged where feasible to reduce VMT. Temporary increases in VMT fall within the scope of activities and impacts addressed in the PEIR, as the number and duration of increased vehicle trips align with those analyzed in the document. Furthermore, MM AQ-1 would encourage contractors to carpool or use public transportation when feasible, as outlined 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).

PSA Addendum - Impact TRAN-3

The inclusion of land in the proposed treatment 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 existing transportation conditions (e.g., roadways and road use) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also potentially significant and unavoidable, as described above. This impact is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Transportation Impacts

The project 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 Sections 3.15.1 and 3.15.2). No change circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to transportation would occur that is not covered in the PEIR.

PSA Addendum - New Transportation Impacts

The project proponent has determined that the inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape 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 transportation 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 to landscape would not give rise to any new significant impacts. Therefore, no new impact related to transportation should occur.

4.15 Public Services, Utilities and Service Systems

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	LTS	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 Standards or Exceed Local Infrastructure Capacity	PSU	Section 3.16.1 pp. 3.16-3 – 3.16-5; Impact UTIL-2 pp. 3.16-10 – 3.16-12	Yes	NA	None	PSU	No	Yes
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	No Impact	No	Yes

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[Identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Impact UTIL-1

Initial and maintenance treatments for this project would include prescribed burning and non-shaded fuel breaks, 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). This impact is within the scope of the activities and impacts addressed in the PEIR because the size and scope of treatments are consistent with those analyzed in the PEIR. No SPRs are applicable to this impact. Based on the consistency with the scope of the PEIR, this impact remains less than significant.

PSA Addendum - Impact UTIL-1

The inclusion of land in the proposed treatment area that is outside of the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the water supplies present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape; therefore, the water supply impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact UTIL-2

Initial and maintenance treatments would generate biomass because 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. This impact was identified as potentially significant and unavoidable in the PEIR because biomass hauled off-site could exceed the capacity of existing infrastructure for handling biomass. For projects requiring the disposal of material outside of the treatment area, SMCP will prepare an Organic Waste Disposition Plan prior to initiating treatment activities. The Solid Organic Waste Disposition Plan will include the amount (e.g., tons) of solid organic waste to be managed onsite (i.e., scattering of wood materials, generating unburned piles, and pile burning) and transported offsite for processing (i.e., biomass power plant, wood product processing facility, composting). If SMCP intends to transport solid organic waste offsite, the Solid Organic Waste Disposition Plan will clearly identify the location and capacity of the intended processing facility, consistent with local and state regulations to demonstrate that adequate capacity exists to accept the treated materials. If any biomass is transported, it will follow UTIL-2, this impact could be potentially significant and unavoidable.

PSA Addendum - Impact UTIL-2

The inclusion of land in the proposed treatment area that is outside of the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the infrastructure utilized to handle biomass is the same as those within the treatable landscape; therefore, the impacts is potentially significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact UTIL-3

This impact does not apply to the proposed project because biomass generated from the proposed treatments will be disposed of on-site.

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 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 (CalVTP Final PEIR Volume II Section 3.16.1 and 3.16.2). The project proponent has also determined that the circumstances under which the proposed treatments would be undertaken are also consistent with those covered in the PEIR. No changed circumstances would give rise to new significant impacts. Therefore, no new impact related to public services, utilities, or service systems would occur.

PSA Addendum - New Impacts to Public Services, Utilities and Service Systems

The project proponent has also determined that the inclusion of land in the proposed treatment 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 impacts to public services, utilities, and service systems in 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 area 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 public services, utilities, and service systems would occur.

4.16 Wildfire

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	LTS	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

¹NA: 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Impact WIL-1

Initial and maintenance treatments for this project include prescribed broadcast burning, pile burning, and the use of heavy machinery during mechanical treatments, all of which have the potential to pose a risk of wildfire ignition or risk of a prescribed fire escaping its control lines. The potential increase in exposure to wildfire was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3, pages 13-14). Increased wildfire risk associated with prescribed burning and the use of heavy equipment for vegetation management is within the scope of the PEIR because the types of equipment and treatment duration of the proposed project are consistent with those analyzed in the PEIR. SPRs applicable for this project include HAZ-2, HAZ-3, and HAZ-4, which would require spark arrestors on all mechanized tools, require fire extinguishers, shovels, and an axe or Pulaski for each vehicle (pursuant to PRC Section 4428), and prohibit smoking in vegetated areas. Based on the implementation of all applicable SPRs the potential to substantially exacerbate wildfire risk and expose people to uncontrolled wildfire would be less than significant.

PSA Addendum - Impact WIL-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP Treatable Landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the project area, the wildfire risk of the project is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also less than significant, as described above; a determination consistent with the PEIR.

Impact WIL-2

Initial and maintenance treatments proposed for this project include the use of prescribed broadcast and pile burning, often on steep slopes present throughout the treatment area. The potential for post-fire related flooding or landslides was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3, pages 14-15). The potential exposure of people or structures to post-fire landslides and flooding are within the scope of the activities and impacts covered in the PEIR because the equipment types and duration of use are consistent with those analyzed in the PEIR. SPRs AQ-3, GEO-2, GEO-3, GEO-4, GEO-5, and GEO-8 are all applicable to this project and would require the inclusion of a burn plan prior to prescribed burning activities, stabilization of disturbed soils, erosion monitoring, draining of stormwater via water breaks under certain conditions, use of strategically placed remaining vegetation or trees to act as erosion control, and evaluation of steep slopes for mechanized treatments. All equipment will be operating on or accessing treatment areas on slopes equal to or less than 50%. The average slope throughout the mechanized treatment areas is approximately 20-30%. Based on the inclusion of all applicable SPRs as well as the treatment design, the potential for this project to result in post-fire flooding or landslides would be less than significant.

PSA Addendum - Impact WIL-2

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the post-fire landslide risk of the project area is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also less than significant, as described above; a determination consistent with the PEIR.

New Impacts to Wildfire

The project proponent has considered the site-specific characteristics of the proposed project and determined they are consistent with the applicable regulatory and environmental conditions presented in the PEIR (CalVTP Final PEIR Volume II Sections 3.17.1 and 3.17.2).

PSA Addendum - New Impacts to Wildfire

The inclusion of land in the proposed treatment 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 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 are present, and the inclusion of areas outside the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to wildfire risk would occur.

5. Attachment A - Mitigation Monitoring and Report
Program for Pescadero Creek County Park Vegetation
Treatment Project

Mitigation Monitoring and Reporting Program

5.1 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 (PSA) identifies potential significant adverse impacts and all feasible MMs have been adopted. Standard project requirements (SPR), 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, MMs have been identified to further reduce and/or compensate for those impacts. While only MMs 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 California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (PEIR).

5.2 Purpose of Mitigation Monitoring and Reporting Program

This MMRP has been prepared to facilitate the implementation of SPRs and MMs. The attached table presents the text of each SPR and MM from the CalVTP PEIR that is applicable to the project, the timing of its planned implementation, the implementation entity and the entity with monitoring responsibility. The numbering of SPRs and MMs follow the numbering used in the PEIR. SPRs and MMs that are referenced more than once in the PSA are not duplicated in the MMRP. Instructions for project-specific implementation of certain SPRs and MMs have 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 MMs in the PEIR are shown in underline and strikethrough. In all cases, the additional project-specific implementation instruction and clarifying edits to MMs maintain the SPRs and MMs as equivalent or more effective than those presented in the PEIR.

5.3 Roles and Responsibilities

This PSA was developed for San Mateo County Parks by Auten Resource Consulting in collaboration with the San Mateo Resource Conservation District. San Mateo County Parks 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 MMs and SPRs occurs in accordance with this MMRP.

5.4 Mitigation Monitoring and Reporting Program Table

Instructions: Review the standard project requirements and mitigation measures and verify that those that are applicable will be implemented. Provide information for each column as follows:

- **Applicable (Yes/No).** Document whether the SPR or MM is applicable to the initial treatment and/or treatment maintenance (Yes or No), and whether it is applicable to initial treatment and/or treatment maintenance. The applicability should be substantiated in the Environmental Checklist Discussion.
- **Timing.** This column identifies the time frame in which the SPR or MM will be implemented (e.g., prior to treatment, during treatment, etc.).
- **Implementing Entity.** The implementing entity is the agency or organization responsible for carrying out the requirement. This could include the project proponent's project manager, a technical specialist (e.g., archeologist or biologist), a vegetation management contractor, a partner agency or organization, or other entities that are primarily responsible for carrying out each project requirement.
- **Verifying/Monitoring Entity.** The verifying/monitoring entity is the agency or organization responsible for ensuring that the requirement is implemented. The verifying/monitoring entity may be different from the implementing entity.

5.5 Qualifications Requirements for Biological and Cultural Resource Measures

The biological and cultural resource SPRs and MMs in the attached MMRP table require that qualified individuals implement components of the measures. The CalVTP PEIR requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including biologist, botanist, ecologist, Registered Professional Forester (RPF), biological technician, or supervised designees working at the direction of a qualified professional) as long as they are qualified for the task at hand.

Archaeologically Trained Resource Professional: To be qualified, an archaeologically-trained resource professional would hold a valid Archaeological Training Certificate issued by CAL FIRE and the Board of Forestry and Fire Protection or equivalent state or local agency training or certification. Work performed by an archaeologically-trained resource professional must be reviewed and approved by a qualified archaeologist. **Qualified Archaeologist:** To be qualified, an archaeologist would hold a Prehistoric Archeology, Historic Archeology, Conservation, Cultural Anthropology, or Curation degree from an accredited university and meet the Secretary of Interior's Qualifications Standards (36 CFR Part 61). The project proponent will review the resume and approve the qualifications of the archaeologists.

Qualified RPF or Biological Technician: To be qualified, an RPF or biological technician would 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting biological monitoring of relevant species or resources, and 4) be knowledgeable about state and federal laws regarding the protection of special-status species. The project proponent will review the resume and approve the qualifications of RPFs or biological technicians.

Qualified RPF or Biologist: To be qualified, an RPF or biologist would hold a wildlife biology, botany, ecology, forestry, or other relevant degree from an accredited university and: 1) be knowledgeable in

relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting field surveys of relevant species or resources, 4) be knowledgeable about survey protocols, 5) be knowledgeable about state and federal laws regarding the protection of special-status species, and 6) have experience with the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) and Biogeographic Information and Observation System (BIOS). The project proponent will review the resume and approve the qualifications of RPFs or biologists. If species-specific protocol surveys are performed, surveys would be conducted by qualified RPFs or biologists with the minimum qualifications required by the appropriate protocols, including having CDFW or US Fish and Wildlife Service (USFWS) approval to conduct such surveys, if required by certain protocols.

Qualified RPF or Botanist: To be qualified, an RPF or botanist would 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the region, including special-status plants and sensitive natural communities, 3) have experience conducting floristic botanical field surveys as described in CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018), or experience conducting such botanical field surveys under the direction of an experienced botanical field surveyor, 4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at <http://vegetation.cnps.org/>), and 5) be familiar with federal, state, and local statutes and regulations related to plants and plant collecting. The project proponent will review the resume and approve the qualifications of RPFs or botanists.

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Administrative Standard Project Requirements				
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>At least three days prior to the commencement of prescribed burning operations.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.				
SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment activities.	SMCP/ SMRCD	SMCP/ SMRCD
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.	Initial Treatment: Y Treatment Maintenance: Y	One to three days prior to the commencement of a treatment activity.	SMCP/ SMRCD	SMCP/ SMRCD
SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. Information on proposed projects (PSA in progress): <ul style="list-style-type: none"> ▶ GIS data that include project location (as a point); ▶ project size (typically acres); ▶ treatment types and activities; and ▶ contact information for a representative of the project proponent. The project proponent will provide information on the proposed project to the Board or CAL FIRE as early as feasible in the planning phase. The project proponent will provide this information to the Board or CAL FIRE with sufficient lead time to allow those agencies to make the information available to the public no later than two weeks prior	Initial Treatment: Y Treatment Maintenance: Y	During the proposed, approved, and completed stages of the project.	SMCP/ SMRCD	SMCP/ SMRCD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website).</p> <p>Information on approved projects (PSA complete):</p> <ul style="list-style-type: none"> ▶ A completed PSA Environmental Checklist; ▶ A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist); ▶ GIS data that include a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction). <p>Information on completed projects:</p> <ul style="list-style-type: none"> ▶ GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction) ▶ A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes <ul style="list-style-type: none"> ▪ Size of treated area (typically acres); ▪ Treatment types and activities; ▪ Dates of work; ▪ A list of the SPRs and mitigation measures that were implemented ▪ Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b). <p>This SPR applies to all treatment activities and all treatment types, including treatment maintenance.</p>				
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior, during, and post treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>SPR AD-9: Obtain a Coastal Development Permit for Proposed Treatment Within the Coastal Zone Where Required. When planning a treatment project within the Coastal Zone, the project proponent will contact the local Coastal Commission district office, or applicable local government to determine if the project area is within the jurisdiction of the Coastal Commission, a local government with a certified Local Coastal Program (LCP), or both. All treatment projects in the Coastal Zone will be reviewed by the local Coastal Commission district office or local government with a certified LCP (in consultation with the local Coastal Commission district office regarding whether a Coastal Development Permit (CDP) is required). If a CDP is required, the treatment project will be designed to meet the following conditions:</p> <ul style="list-style-type: none"> i. The treatment project will be designed in compliance with applicable provisions of the Coastal Act that provide substantive performance standards for the protection of potentially affected coastal resources, if the treatment activity will occur within the original jurisdiction of the Commission or an area of a local coastal government without a certified LCP; and ii. The treatment project will be designed in compliance with the applicable provisions of the certified LCP, specifically the substantive performance standards for the protection of potentially affected coastal resources, if the treatment activity will occur within the jurisdiction of a local coastal government with a certified LCP. <p>This SPR applies to all treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
Aesthetic and Visual Resource Standard Project Requirements				
<p>SPR AES-1 Vegetation Thinning and Edge Feathering: The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical and manual maintenance activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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</p>	<p>Initial Treatment: Y</p>	<p>During all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Treatment Maintenance: Y			
SPR AES-3 Provide Vegetation Screening: The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During all treatment activities.	SMCP/ SMRCD	SMCP/ SMRCD
Air Quality Standard Project Requirements				
SPR AQ-1 Comply with Air Quality Regulations: The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During all treatment activities.	SMCP/ SMRCD	SMCP/ SMRCD
SPR AQ-2 Submit Smoke Management Plan: The project proponent will submit a smoke management plan for all prescribed burns to the applicable air district, in accordance with 17 CCR Section 80160. Pursuant to this regulation a smoke management plan will not be required for burns less than 10 acres that also will not be conducted near smoke sensitive areas, unless otherwise directed by the air district. Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. Example of a smoke management plan is in Appendix PD-2. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior to prescribed burn treatments.	SMCP/ SMRCD	SMCP/ SMRCD
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	Initial Treatment: Treatment Maintenance:	Prior to prescribed burn treatments. Does not apply to pile burning.	SMCP/ SMRCD	SMCP/ SMRCD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.</p>				
<p>SPR AQ-4 Minimize Dust: To minimize dust during treatment activities, the project proponent will implement the following measures:</p> <ul style="list-style-type: none"> ▶ 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. <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR AQ-5 Avoid Naturally Occurring Asbestos: The project proponent will avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per maps and guidance published by the California Geological Survey, unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area. Any NOA-related guidance</p>	<p>Initial Treatment: N</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
provided by the applicable air district will be followed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Treatment Maintenance: N			
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	During prescribed burn treatment activities.	SMCP/ SMRCD	SMCP/ SMRCD
Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements				
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	Prior to all initial treatment activities. Not required prior to maintenance treatments if records search remains valid.	SMCP/ SMRCD	SMCP/ SMRCD
<p>SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. 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:</p> <ul style="list-style-type: none"> ▶ 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. 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	Prior to all initial treatment activities. Not required prior to maintenance treatments if records search remains valid.	SMCP/ SMRCD	SMCP/ SMRCD

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ 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. <p>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.</p>				
<p>SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to all initial treatment activities. Not required prior to maintenance treatments of research remains valid.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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 <u>except manual treatments and the application of herbicide.</u></p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to all initial treatment activities. Not required prior to maintenance treatments if initial surveys remain valid.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Project Specific Implementation: SMCP proposes to conduct archaeological surveys only for ground disturbing treatment activities. As described in the CalVTP PEIR Section 2.5.2., manual treatments and application of herbicide would deploy less distributive ground treatments and are effectively used in sensitive areas and habitats. Thus, conducting an archaeological survey report for areas designated for manual treatments and herbicide applications would result in unnecessary loss of work time. This revision to SPR CUL-4 would help to prevent unnecessarily slowing down project implementation while maintaining the overall intent of SPR CUL-4 in areas where ground disturbance activities have a higher likelihood to affect archaeological artifacts. The proposed revisions to SPR CUL-4 are shown underlined in box above. See Proposed Project Revisions in section 1.2 for more information.

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>Biological Resources Standard Project Requirements</p>				
<p>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, CNDDDB, 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:</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to treatment activities. Initial data review and reconnaissance-level survey have been conducted; see PSA for summary of results.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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:</p> <ul style="list-style-type: none"> 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). <p>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.</p> <p>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).</p> <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. The training will describe the appropriate work</p>	<p>Initial Treatment: Y</p>	<p>Prior to treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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.</p>	<p>Treatment Maintenance: Y</p>			
<p>Sensitive Natural Communities and Other Sensitive Habitats</p>				
<p>SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will:</p> <ul style="list-style-type: none"> ▶ 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 <i>A Manual of California Vegetation</i> (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. <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design</p>	<p>Initial Treatment: Y</p>	<p>Prior to and during all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats:</p> <ul style="list-style-type: none"> ▶ 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. 	<p>Treatment Maintenance: Y</p>			

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ 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. <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>				
<p>SPR BIO-5: Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub. The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. An ecological definition of type conversion is used in the CalVTP PEIR for assessment of environmental effects: a change from a vegetation type dominated by native shrub species that are characteristic of chaparral and coastal sage scrub vegetation alliances to a vegetation type characterized predominantly by weedy</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>herbaceous cover or annual grasslands. For the PEIR, type conversion is considered in terms of habitat function, which is defined here as the arrangement and capability of habitat features to provide refuge, food source, and reproduction habitat to plants and animals, and thereby contribute to the conservation of biological and genetic diversity and evolutionary processes (de Groot et al. 2002). Some modification of habitat characteristics may occur provided habitat function is maintained (i.e., the location, essential habitat features, and species supported are not substantially changed). During the reconnaissance-level survey required in SPR BIO-1, a qualified RPF or biologist will identify chaparral and coastal sage scrub vegetation to the alliance level and determine the condition class and fire return interval departure of the chaparral and/or coastal sage scrub present in each treatment area.</p> <p>For all treatment types in chaparral and coastal sage scrub, the project proponent, in consultation with a qualified RPF or qualified biologist will:</p> <ul style="list-style-type: none"> ▶ Develop a treatment design that avoids environmental effects of type conversion in chaparral and coastal sage scrub vegetation alliances, which will include evaluating and determining the appropriate spatial scale at which the proponent would consider type conversion, and substantiating its appropriateness. The project proponent will demonstrate with substantial evidence that the habitat function of chaparral and coastal sage scrub would be at least maintained within the identified spatial scale at which type conversion is evaluated for the specific treatment project. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, spatial needs of sensitive species, presence of sufficient seed plants and nurse plants, light availability, and edge effects may inform the determination of an appropriate spatial scale. ▶ The treatment design will maintain a minimum percent cover of mature native shrubs within the treatment area to maintain habitat function; the appropriate percent cover will be identified by the project proponent in the development of treatment design and be specific to the vegetation alliances that are present in the identified spatial scale used to evaluate type conversion. Mature native shrubs that are retained will be distributed contiguously or in patches within the stand. If the stand consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity, to the extent needed to avoid type conversion. <p>These SPR requirements apply to all treatment activities and all treatment types, including treatment maintenance.</p>				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Additional measures will be applied to ecological restoration treatment types:</p> <ul style="list-style-type: none"> ▶ For ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral and coastal sage scrub vegetation types. ▶ Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval (i.e., time since last burn is less than the average time listed as the fire return interval range in Table 3.6-1) unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved. ▶ A minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 60 percent, post treatment shrub canopy density will be no less than 40 percent). A different percent relative cover can be retained if the project proponent demonstrates with substantial evidence that alternative treatment design measures would result in effects on the habitat function of chaparral and coastal sage scrub that are equal or more favorable than those expected to result from application of the above measures. Biological considerations that may inform a deviation from the minimum 35 percent relative cover retention include but are not limited to soil moisture requirements, increased soil temperatures, changes in light/shading, presence of sufficient seed plants and nurse plants, erosion potential, and site hydrology. ▶ If the stand within the treatment area consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity. <p>These SPR requirements apply to all treatment activities and only the ecosystem restoration treatment type, including treatment maintenance.</p> <p>A determination of compliance with the SB 1260 prohibition of type conversion in chaparral and coastal sage scrub is a statutory issue separate from CEQA compliance that may involve factors additional to the ecological definition and habitat functions presented in the PEIR, such as geographic context. It is beyond the legal scope of the PEIR to define SB 1260 type conversion and statutory compliance. The project proponent, acting as lead agency for the proposed later treatment project, will be responsible for defining type conversion in the context of the project and making the finding that type conversion would not occur, as required by SB 1260. The project</p>				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>proponent will determine its criteria for defining and avoiding type conversion and, in making its findings, may draw upon information presented in this PEIR.</p>				
<p>SPR BIO-6: Prevent Spread of Plant Pathogens. When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., lone chaparral, blue oak woodland), the project proponent will implement the following best management practices to prevent the spread of <i>Phytophthora</i> and other plant pathogens (e.g., pitch canker (<i>Fusarium</i>), goldspotted oak borer, shot hole borer, bark beetle):</p> <ul style="list-style-type: none"> ▶ 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 <i>Phytophthora</i> 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 <i>Phytoptheras</i> in Native Habitats 2016). <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>Special-Status Plants</p>				
<p>SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities."</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> ▶ 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. <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>				
Environmentally Sensitive Habitat Areas				
<p>SPR BIO-8: Identify and Avoid or Minimize Impacts in Coastal Zone ESHAs. When planning a treatment project within the Coastal Zone, the project proponent will, in consultation with the Coastal Commission or a local government with a certified Local Coastal Program (LCP) (as applicable), identify the habitat types and species present to determine if the area qualifies as an Environmentally Sensitive Habitat Area (ESHA). If the area is an ESHA, the treatment project may be allowed pursuant to this PEIR, if it meets the following conditions. If a project requires a CDP by the Coastal Commission or a local government with a certified LCP (as applicable), the CDP approval may require modification to these conditions to further avoid and minimize impacts:</p>	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	N/A	N/A	N/A

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ The treatment will be designed, in compliance with the Coastal Act or LCP if a site is within a certified LCP area, to protect the habitat function of the affected ESHA, protect habitat values, and prevent loss or type conversion of habitat and vegetation types that define the ESHA, or loss of special-status species that inhabit the ESHA. ▶ Treatment actions will be limited to eradication or control of invasive plants, removal of uncharacteristic fuel loads (e.g., removing dead, diseased, 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 vegetation types present in the ESHA. ▶ A qualified biologist or RPF familiar with the ecology of the treatment area will monitor all treatment activities in ESHAs. ▶ Appropriate no-disturbance buffers will be developed in compliance with the Coastal Act or relevant LCP policies for treatment activities in the vicinity of ESHAs to avoid adverse direct and indirect effects to ESHAs. <p>This SPR applies to all treatment activities and all treatment types, including treatment maintenance.</p>				
Invasive Plants and Wildlife				
<p>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):</p> <ul style="list-style-type: none"> ▶ 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; 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ 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). <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>				
Wildlife				
<p>SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries, 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.</p> <p>The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>No more than 14 days prior to all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed.</p> <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>				
<p>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:</p> <ul style="list-style-type: none"> ▶ 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. <p>This SPR applies only to prescribed herbivory and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP PEIR. The active nesting season will be defined by the qualified RPF or biologist.</p> <p>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.,</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Nesting bird surveys will be required from February 1st to August 31st and shall be conducted no more than three days prior to</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>CNDDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identify 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).</p> <p>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:</p> <ul style="list-style-type: none"> ▶ 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. 		<p>starting work. If a lapse in work of 7 days or longer occurs, another focused survey will be conducted before work can be reinitiated prior to all treatment activities</p>		

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>► 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.</p> <p>► 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.</p> <p>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).</p> <p>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:</p> <p>► 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.</p>				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>► Retention of Raptor Nest Trees. Trees with visible raptor nests, whether occupied or not, will be retained.</p> <p>This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>				

Project Specific Implementation:

Nesting bird and bat roost surveys will be required from February 1st to August 31st and shall be conducted no more than three days prior to starting work. If a lapse in work of 7 days or longer occurs, another focused survey will be conducted before work can be reinitiated. If no active bird nests are observed during the focused surveys, then additional measures will not be required. If active nests common bird or raptors are observed during focused surveys, then additional measures will not be required. If active nests of common birds are observed during surveys, feasible impact avoidance strategies will be implemented to avoid disturbance to the nests as described in SPR BIO-12. Feasible impact avoidance strategies include establishing appropriate buffers, modifying treatments to avoid disturbance and deferring treatment until the nest is no longer active as determined by a qualified RPF or biologist. Buffers will be based upon a species life history. Buffers will typically be between 50 and 300 feet for non-raptors and up to 500 feet or greater for raptors and based on the qualified RPF or biologist analysis that the buffer is appropriate and may increase or decrease buffer size while still maintain protection for the nesting bird species.

Geology, Soils, and Mineral Resource Standard Project Requirements

<p>SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments <u>if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical treatment activities.</u> 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical, prescribed herbivory, and herbicide treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
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Project Specific Implementation: SMCP proposes to suspend mechanical, herbivory, and herbicide treatments if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical treatment activities. In the coastal region of the project area, forecasts often include a chance of rain; however, precipitation sometimes does not materialize. Therefore, suspension of treatment activities in these cases could result in unnecessary loss of work time. Without this revision to SPR GEO-1, the project objectives may not be achieved. The proposed revisions to SPR GEO-1 are shown in underline and strikethrough in the box above.

See Proposed Project Revisions in section 1.2 for more information.

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments, and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical, prescribed herbivory, and prescribed burn activities that result in exposure of bare soil over 50 percent or more of the treatment area.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules (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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical, Manual, and prescribed burn treatment activities and all treatment types including treatment maintenance.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical, manual, and prescribed burn treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR GEO-7 Minimize Erosion: To minimize erosion, the project proponent will:</p> <p>(1) Prohibit use of heavy equipment where any of the following conditions are present:</p> <ul style="list-style-type: none"> (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. <p>(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:</p> <ul style="list-style-type: none"> (i) Existing tractor roads that do not require reconstruction, or (ii) New tractor roads flagged by the project proponent prior to the treatment activity. <p>(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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During mechanical, manual and prescribed burn treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). 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 identify 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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during mechanical treatment activities on slopes greater than 50 percent.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>Greenhouse Gas Emissions Standard Project Requirements</p>				
<p>SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>Hazardous Material and Public Health and Safety Standard Project Requirements</p>				
<p>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 <u>promptly stabilize equipment and fix it on-site</u> or remove the leaking equipment from the treatment area, outside of the WLPZ, be promptly removed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>Project Specific Implementation: SMCP proposes to promptly stabilize any equipment found leaking and fix it on-site or remove the leaking equipment from the treatment area. This gives the project proponent the flexibility to fix equipment on-site if feasible and continue treatment rather than requiring all leaking equipment be removed. This would help to prevent unnecessarily slowing down project implementation while maintaining the overall intent of SPR HAZ-1 to minimize hazardous material releases in treatment areas from equipment use. The proposed revisions to SPR HAZ-1 are underlined for added and strikethrough for redacted language in the box above.</p>				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
See Proposed Project Revisions in section 1.2 for more information.				
<p>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.</p>	<p>Initial Treatment: Y Treatment Maintenance: Y</p>	<p>During manual treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y Treatment Maintenance: Y</p>	<p>During manual treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y Treatment Maintenance: Y</p>	<p>During all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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):</p> <ul style="list-style-type: none"> ▶ 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. <p>This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y Treatment Maintenance: Y</p>	<p>Prior to and during herbicide treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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:</p>	<p>Initial Treatment: Y</p>	<p>Prior to and during herbicide treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ 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. <p>This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.</p>	<p>Treatment Maintenance: Y</p>			
<p>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.</p> <p>This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During herbicide treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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:</p> <ul style="list-style-type: none"> ▶ 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. 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During herbicide treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.				
<p>SPR HAZ-9 Notification of Herbicide Use in the Vicinity of Public Areas: For herbicide applications occurring within or adjacent to public recreation areas, residential areas, schools, or any other public areas within 500 feet, the project proponent will post signs at each end of herbicide treatment areas and any intersecting trails notifying the public of the use of herbicides. The signs will include the signal word (i.e., Danger, Warning or Caution), product name, and manufacturer; active ingredient; EPA registration number; target pest; treatment location; date and time of application; restricted entry interval, if applicable per the label requirements; date which notification sign may be removed; and a contact person with a telephone number. Signs will be posted prior to the start of treatment and notification will remain in place for at least 72 hours after treatment ceases. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Post signs at the beginning of herbicide treatment activities and maintain the signs place 72 after treatment ceases</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
Hydrology and Water Quality Standard Project Requirements				
<p>SPR HYD-1 Comply with Water Quality Regulations: Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity										
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>										
<p>SPR HYD-3 Water Quality Protections for Prescribed Herbivory: The project proponent will include the following water quality protections for all prescribed herbivory treatments:</p> <ul style="list-style-type: none"> ▶ 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. <p>This SPR applies to prescribed herbivory treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>										
<p>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 <u>within 300 feet to the manual, mechanical, prescribed pile burning, and herbicide treatments</u> 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.</p> <p>Procedures for Determining Watercourse and Lake Protection Zone (WLPZ) widths</p> <table border="1"> <thead> <tr> <th>Water Class</th> <th>Class I</th> <th>Class II</th> <th>Class III</th> <th>Class IV</th> </tr> </thead> <tbody> <tr> <td> Water Class Characteristics or Key Indicator Beneficial Use </td> <td> 1) Domestic supplies, including springs, on site and/or within 100 feet </td> <td> 1) Fish always or seasonally present offsite within 1000 feet </td> <td> No aquatic life present, watercourse showing evidence of being capable of </td> <td> Man-made watercourses, usually downstream, established domestic, </td> </tr> </tbody> </table>	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	1) Fish always or seasonally present offsite within 1000 feet	No aquatic life present, watercourse showing evidence of being capable of	Man-made watercourses, usually downstream, established domestic,	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Establish WPLZ's during design of treatment project; implement WLPZ protection during treatment</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
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	1) Fish always or seasonally present offsite within 1000 feet	No aquatic life present, watercourse showing evidence of being capable of	Man-made watercourses, usually downstream, established domestic,										

Standard Project Requirements					Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
	downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.	downstream and/or 2) Aquatic habitat for nonfish aquatic species. 3) Excludes Class III waters that are tributary to Class I waters.	sediment transport to Class I and II waters under normal high-water flow conditions after completion of timber operations.	agricultural, hydroelectric supply or other beneficial use.				
WLPZ Width (ft) – Distance from top of bank to the edge of WLPZ								
< 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						
<p>Source: 14 CCR Section 916.5 [936.5, 956.5] (February 2019 version)</p> <p>The following WLPZ protections will be applied for <u>manual, mechanical, prescribed pile burning, and herbicide treatments</u> all treatments:</p> <ul style="list-style-type: none"> ▶ 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] 								

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Subsection (b)(6) (February 2019 version) and 14 CCR Section 916.5 (February 2019 version).</p> <ul style="list-style-type: none"> ▶ 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. 				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
This SPR applies to all treatment activities and treatment types, including treatment maintenance.				

Project Specific Implementation: SMCP proposes to establish the WLPZs for only the watercourses within 300 feet of the manual, mechanical, prescribed pile burning, and herbicide treatments. This would limit the amount of time spent by the project proponent identifying and delineating WLPZs, as well as limit the amount of high visible flagging used throughout the park. This would help ensure that all WLPZs within a treatment area are recently flagged, without unnecessarily slowing down project implementation to establish all WLPZs throughout the entire park, while maintaining overall intent of SPR HYD-4 to prevent degradation of watercourses during implementation of manual, mechanical, and prescribed pile burning. The proposed revisions to SPR HYD-4 are shown in underline for added and strikethrough for redacted language in the box above. See Proposed Project Revisions in section 1.2 for more information.

<p>SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: The project proponent will implement the following measures when applying herbicides:</p> <ul style="list-style-type: none"> ▶ 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); 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During herbicide treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
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Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>▶ No herbicide will be applied during precipitation events or if precipitation is forecast 24 hours before or after project activities.</p> <p>This SPR applies to herbicide treatment activities and all treatment types, including treatment maintenance.</p>				
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to ground disturbing activities. After ground disturbing activities if required.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
Noise Standard Project Requirements				
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During all mechanical treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to mechanical treatment activities occurring within 1500 feet of sensitive noise receptors.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
<p>Recreation Standard Project Requirements</p>				
<p>SPR REC-1 Notify Recreational Users of Temporary Closures. If a treatment activity would require temporary closure of a public recreation area or facility, the project proponent will coordinate with the owner/manager of that recreation area or facility. If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Transportation Standard Project Requirements				
<p>SPR TRAN-1 Implement Traffic Control during Treatments: Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the CalVTP. Measures included in the TMP could include (but are not be limited to) construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities, flaggers for lane closures to provide temporary traffic control along affected roadway facilities, treatment schedule restrictions to avoid seasons or time periods of peak vehicle traffic, haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of vegetation treatment projects. This SPR applies to all treatment activities and treatment types, including treatment maintenance.</p> <p>Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prepare a TMP prior to treatment activities and implement during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
Public Services and Utilities Standard Project Requirements				
<p>SPR UTIL-1: Solid Organic Waste Disposition Plan. For projects requiring the disposal of material outside of the treatment area, the project proponent will prepare an Organic</p>	<p>Initial Treatment: Y</p>	<p>Prior to and during mechanical and</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Waste Disposition Plan prior to initiating treatment activities. The Solid Organic Waste Disposition Plan will include the amount (e.g., tons) of solid organic waste to be managed onsite (i.e., scattering of wood materials, generating unburned piles, and pile burning) and transported offsite for processing (i.e., biomass power plant, wood product processing facility, composting). If the project proponent intends to transport solid organic waste offsite, the Solid Organic Waste Disposition Plan will clearly identify the location and capacity of the intended processing facility, consistent with local and state regulations to demonstrate that adequate capacity exists to accept the treated materials. This SPR applies only to mechanical and manual treatment activities and all treatment types, including treatment maintenance.</p>	<p>Treatment Maintenance: Y</p>	<p>manual treatment activities.</p>		

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Aesthetics and Visual Resources				
<p>Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks</p> <p>The project proponent will conduct a visual reconnaissance of the treatment area prior to implementing non-shaded fuel breaks to observe the surrounding landscape and determine if public viewing locations, including scenic vistas, public trails, and state scenic highways, have views of the proposed treatment area. If none are identified, the non-shaded fuel break may be implemented without additional visual mitigation.</p> <p>If the project proponent identifies public viewing points, including heavily used scenic vistas, public trails, recreation areas, and state scenic highways with lengthy views (i.e., longer than a few seconds) of a proposed non-shaded fuel break treatment area, the project proponent will, prior to implementation, attempt to identify any feasible change in location of the fuel break to reduce its visibility from public viewpoints. If no feasible location changes exist that would reduce impacts to public viewers and achieve the intended wildfire risk reduction objectives of the proposed non-shaded fuel break, the project proponent will implement, where feasible, a shaded fuel break rather than a non-shaded fuel break, if the shaded fuel break would achieve the intended wildfire risk reduction objectives. With the shaded fuel break, the project proponent will thin and feather adjacent vegetation to break up the linear edges of the fuel break and strategically preserve vegetation at the edge of the fuel break,</p>	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
as feasible, to help screen public views and minimize the contrast between the fuel break and surrounding vegetation.				
Air Quality				
<p>Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques</p> <p>Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not be feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible. Techniques for reducing emissions may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▶ Diesel-powered off-road equipment used in construction will meet EPA’s Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit’s certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment. ▶ Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria: <ul style="list-style-type: none"> ▪ meet California’s Low Carbon Fuel Standards and be certified by CARB Executive Officer; ▪ be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables; ▪ contain no fatty acids or functionalized fatty acid esters; and ▪ have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines. 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment. ▶ Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes. ▶ Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NO_x and PM. 				

Archaeological, Historical, and Tribal Cultural Resources

<p>Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources</p> <p>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.</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During ground disturbing activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
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Biological Resources

<p>Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA</p> <p>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</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
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Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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.</p> <p>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.</p> <p>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.</p>				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA</p> <p>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 PEIR) 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:</p> <ul style="list-style-type: none"> ▶ 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. 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>▶ No fire ignition (nor use of associated accelerants) will occur within the special-status plant buffer.</p> <p>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.</p> <p>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.</p>				
<p>Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants</p> <p>If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. 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</p>	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	N/A	N/A	N/A

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>CESA, the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment.</p> <p>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:</p> <ul style="list-style-type: none"> ▶ 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. <p>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:</p> <ul style="list-style-type: none"> ▶ 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. <p>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</p>				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.</p>				
<p>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)</p> <p>If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following.</p> <p><u>Avoid Mortality, Injury, or Disturbance of Individuals</u></p> <p>The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals:</p> <ol style="list-style-type: none"> 1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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</p> <p>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.</p> <ul style="list-style-type: none"> ▶ 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. <p><u>Maintain Habitat Function</u></p> <ul style="list-style-type: none"> ▶ The project proponent will design treatment activities to maintain the habitat function, by implementing the following: <ul style="list-style-type: none"> ▪ 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 				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained.</p> <p>► 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.</p>				

Project Specific Implementation: The marbled murrelet and California red-legged frog are ESA, CESA, or CDFW protected species that occurs or potentially suitable habitat occurs within the project area; species specific avoidance measures are outlined below to implemented in addition to applicable SPRs and Mitigation Measures.

Marbled murrelet

Per the recommendations in Attachment E that resulted from discussions with CDFW, USFWS, and the San Mateo County Parks the following applicable recommendations will be adhered to within the project area (see Attachment E for a full list of recommendations that apply to additional areas within the Santa Cruz Mountains):

1. **Operational Window:** High decibel work in proximity or within areas identified as murrelet habitat, occupied or important habitat areas in the Santa Cruz Mountains may begin on August 5th and continue to March 24th, except for the following conditions:
 - a) At sites that are known as prime unburned (pre-CZU Fire) habitat for marbled murrelets where the project proponent will avoid working until September 1st, unless new AV or ARU data suggests different dates when murrelets nest in these areas.
 - b) High decibel work may occur year around in areas of the CZU Fire that burned at moderate-high and high severities within the CZU Fire where murrelet habitat was significantly compromised or destroyed.
2. **Working Hours:** The project proponent will not work during the dawn and dusk period in areas identified as murrelet habitat, occupied or important areas that experienced low or moderate burn severity. Work from 1.5 hours after sunrise to 1 hour before sunset between March 24th – August 5th.
3. **Noise Restrictions:** Noise restrictions should be in place that address any chronic noise production or new noise that is 30-35 dB above background. These noises should be carefully evaluated and minimized to the extent possible.
 - a) **Habitat Buffer:** Sound analysis work and data indicates that in areas of low to moderate fire severity, where areas identified as murrelet habitat, occupied or important habitat areas in the Santa Cruz Mountains still exists, buffers can be reduced to 330 feet to allow larger handwork crews and mastication equipment to conduct forest restoration and resilience treatments greater than normal routine maintenance actions and park use, from March 24th – September 1st within marbled murrelet important areas.
4. **Strategic Planning:** The project proponent will time forestry work to occur as far from murrelet habitat in the July timeframe and work towards murrelet habitat.
5. **Continued monitoring:** AV and ARU monitoring should continue in areas where these recommendations are being followed to monitor changes in murrelet behavior supporting adaptive management strategies as needed to protect the species.

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>California red-legged frog and foothill yellow-legged frog Additional avoidance measures for California red-legged frog, which will also provide protection and avoidance measures for foothill yellow-legged frog, include:</p> <ul style="list-style-type: none"> • Mechanized operations will cease for 24 hours after a rain event defined as any precipitation resulting in 0.2 inches and up to 1.0 inch in a 24-hour period, throughout the year to avoid dispersing California red-legged frog. • Mechanized operations will cease for 48 hours after a rain event resulting in precipitation of 1.0 inch to 2.0 inches in a 24-hour period. • Mechanized operations will cease for 72 hours after a rain event resulting in precipitation of 2.0 inches or greater in a 24-hour period. • Hand work without the use of tracked chippers or other mechanized heavy equipment may continue following rain events. 				
<p>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 PEIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following.</p> <p><u>Avoid Mortality, Injury, or Disturbance of Individuals</u></p> <p>► The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals:</p> <p>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</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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).</p> <ul style="list-style-type: none"> ▶ 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. <p><u>Maintain Habitat Function</u></p> <ul style="list-style-type: none"> ▶ For all treatment activities, the project proponent will design treatment activities to maintain the habitat function by implementing the following: <ul style="list-style-type: none"> ▪ 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 				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>requirements of the affected species and the most current, commonly accepted science.</p> <ul style="list-style-type: none"> ▪ 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. <p>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.</p> <p>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</p>				

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

Project Specific Implementation: The Santa Cruz Black salamander, California giant Salamander, San Francisco dusky-footed woodrat, and mountain lion are other special status species that are known to occur within the project area; species specific avoidance measures are outlined below, as applicable, to be implemented in addition to applicable SPRs and Mitigation Measures.

Santa Cruz black salamander and California giant salamander

Pre-treatment activity surveys will determine presence of the Santa Cruz black salamander and California giant salamander. Surveys will inform appropriate avoidance measures, such as allowing the animal to pass on its own, establishing appropriate avoidance buffers, or monitoring the location of the individual(s) during operations.

San Francisco dusky-footed woodrat

- If San Francisco dusky-footed woodrat nests are detected within treatment areas during focused surveys, a no-disturbance buffer of sufficient size (approximately 5-10 feet) to prevent disturbance would be established around the nests to prevent accidental encroachment by vehicles, equipment, or personnel.
- If San Francisco dusky-footed woodrat nests within treatment areas cannot be avoided, nest removal may occur only outside the breeding season (January 1st - September 30th), if feasible.
- If San Francisco dusky-footed woodrat must be removed during the breeding season, they will be slowly removed by hand to determine if young are present.
- If young are present the nest material shall be replaced and the nest left alone for 2-3 weeks at which time the nest can be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling.
- Nest removal efforts should not take place during inclement weather or extreme weather conditions and should take place at dusk or dawn, when woodrats are least susceptible to predators.
- Prior to nest removal, safety precautions should be employed to minimize potential human exposure to possible diseases and viruses carried by woodrats; adequate protection, such as protective clothing, equipment and tools, gloves, and appropriate masks, should be used to ensure the health and safety of humans removing the nests.
- Pursuant to MM BIO-2b, prescribed broadcast burning will be avoided, when feasible, in known woodrat locations during peak breeding season in mid-spring (April 15 – May 15).

Mountain lion

- Any mountain lion sightings or detections of dens or rendezvous sites will be immediately reported to CDFW.
- A 300-foot no-operations buffer will be established around active den habitat and CDFW will be notified.
- Operations shall not commence within the no-operations buffer until appropriate buffers and MMs can be determined and approved by CDFW.

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)</p> <p>If the provisions of Mitigation Measure BIO-2a, BIO-2b, BIO-2d, BIO-2e, BIO-2f, or BIO-2g cannot be implemented and the project proponent determines that additional mitigation is necessary to reduce significant impacts, the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment.</p> <p>Compensation may include:</p> <ol style="list-style-type: none"> 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). <p>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:</p> <ol style="list-style-type: none"> 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, 	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>and parties responsible for long-term management and monitoring of the restored habitat.</p> <p>Review requirements are as follows:</p> <ul style="list-style-type: none"> ▶ 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. <p>Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit), if these requirements are equally or more effective than the mitigation identified above.</p>				
<p>Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)</p> <p>If elderberry shrubs within the documented range of valley elderberry longhorn beetle are identified during review and surveys for SPR BIO-1, and valley elderberry longhorn beetle or likely occupied suitable elderberry habitat (e.g., within riparian, within historic riparian, containing exit holes) is confirmed to be present during protocol-level surveys following the protocol outlined in USFWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) per SPR BIO-10, the following protective measures will be implemented to avoid and minimize impacts to valley elderberry longhorn beetle:</p> <ul style="list-style-type: none"> ▶ If elderberry shrubs are 165 feet or more from the treatment area, and treatment activities would not encroach within this distance, direct or indirect impacts are not expected and further mitigation is not required. ▶ If elderberry shrubs are located within 165 feet of the treatment area, the following measures will be implemented: <ul style="list-style-type: none"> ▪ A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant will be fenced or flagged and maintained to avoid direct impacts (e.g., damage to root system) that could damage or kill the plant, with the exception of the following activities: 	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> - Manual trimming of elderberry shrubs will only occur between November and February and will avoid removal of any branches or stems that are greater than or equal to 1 inch in diameter to avoid and minimize adverse effects on valley elderberry longhorn beetle. - Manual or mechanical vegetation treatment within the drip-line of any elderberry shrub will be limited to the season when adults are not active (August - February), will be limited to methods that do not cause ground disturbance, and will avoid damaging the elderberry. ▪ A qualified RPF, biologist, or biological technician familiar with valley elderberry longhorn beetle and its life history will monitor the work area to verify the avoidance and minimization measures are implemented. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to valley elderberry longhorn beetle. <p>If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of VELB or degradation of occupied habitat such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.</p>				
<p>Mitigation Measure BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities)</p> <p>If federally listed butterflies are identified as occurring or having potential to occur during review and surveys for SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, then the following measures will be implemented:</p> <ul style="list-style-type: none"> ▶ Treatment areas within the range of these species will be surveyed for the host plant for each species (Table 3.6-34). ▶ Host plants for federally listed butterflies within the occupied habitat will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants. ▶ Because prescribed herbivory could result in the indiscriminate removal of the host plants for federally listed butterflies, this treatment type will not be used within occupied habitat of any federally listed butterfly species, unless it is known that the host plant is unpalatable to the herbivore. ▶ Treatment areas that are not occupied but are within the range of the federally listed butterfly will be divided into as many treatment units as feasible such that the entirety of the habitat is not treated within the same year. 	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	N/A	N/A	N/A

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>► Treatments will be conducted in a patchy pattern to the extent feasible in areas that are not occupied but are within the range of the federally listed butterfly, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained.</p> <p>If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of federally listed butterflies or degradation of occupied habitat (host plants) such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.</p> <p>CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed butterflies or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.</p> <p>Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA, because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status butterflies or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with</p>				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity																																
<p>implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources). If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.</p> <p>Table 3.6-34 Special-status Butterflies and Associated Host Plants</p> <table border="1"> <thead> <tr> <th>Butterfly Species</th> <th>Host Plants</th> </tr> </thead> <tbody> <tr> <td>bay checkerspot butterfly</td> <td>dwarf plantain (<i>Plantago virginica</i>), purple owl's clover (<i>Castilleja exserta</i>)</td> </tr> <tr> <td>Behren's silverspot butterfly</td> <td>blue violet (<i>Viola adunca</i>)</td> </tr> <tr> <td>callippe silverspot butterfly</td> <td>California golden violet (<i>Viola pedunculata</i>)</td> </tr> <tr> <td>Carson wandering skipper</td> <td>salt grass (<i>Distichlis spicata</i>)</td> </tr> <tr> <td>El Segundo blue butterfly</td> <td>seacliff buckwheat (<i>Eriogonum parvifolium</i>)</td> </tr> <tr> <td>Hermes copper butterfly</td> <td>spiny redberry (<i>Rhamnus crocea</i>)</td> </tr> <tr> <td>Kern primrose sphinx moth</td> <td>plains evening-primrose (<i>Camissonia contorta</i>), field primrose (<i>Camissonia campestris</i>)</td> </tr> <tr> <td>Laguna Mountains skipper</td> <td>Cleveland's horkelia (<i>Horkelia clevelandii</i>), sticky cinquefoil (<i>Drymocallis glandulosa</i>)</td> </tr> <tr> <td>Lange's metalmark butterfly</td> <td>naked-stemmed buckwheat (<i>Eriogonum nudum</i>)</td> </tr> <tr> <td>lotis blue butterfly</td> <td>seaside bird's foot trefoil (<i>Hosackia gracilis</i>)</td> </tr> <tr> <td>Mission blue butterfly</td> <td>lupine (<i>Lupinus</i> spp.)</td> </tr> <tr> <td>Myrtle's silverspot butterfly</td> <td>blue violet</td> </tr> <tr> <td>Oregon silverspot butterfly</td> <td>blue violet</td> </tr> <tr> <td>Palos Verdes blue butterfly</td> <td>Santa Barbara milkvetch (<i>Astragalus trichopodus</i>), common deerweed (<i>Acmispon glaber</i>)</td> </tr> <tr> <td>San Bruno elfin butterfly</td> <td>broadleaf stonecrop (<i>Sedum spathulifolium</i>), manzanita (<i>Arctostaphylos</i> spp.), huckleberry (<i>Vaccinium</i> spp.)</td> </tr> </tbody> </table>	Butterfly Species	Host Plants	bay checkerspot butterfly	dwarf plantain (<i>Plantago virginica</i>), purple owl's clover (<i>Castilleja exserta</i>)	Behren's silverspot butterfly	blue violet (<i>Viola adunca</i>)	callippe silverspot butterfly	California golden violet (<i>Viola pedunculata</i>)	Carson wandering skipper	salt grass (<i>Distichlis spicata</i>)	El Segundo blue butterfly	seacliff buckwheat (<i>Eriogonum parvifolium</i>)	Hermes copper butterfly	spiny redberry (<i>Rhamnus crocea</i>)	Kern primrose sphinx moth	plains evening-primrose (<i>Camissonia contorta</i>), field primrose (<i>Camissonia campestris</i>)	Laguna Mountains skipper	Cleveland's horkelia (<i>Horkelia clevelandii</i>), sticky cinquefoil (<i>Drymocallis glandulosa</i>)	Lange's metalmark butterfly	naked-stemmed buckwheat (<i>Eriogonum nudum</i>)	lotis blue butterfly	seaside bird's foot trefoil (<i>Hosackia gracilis</i>)	Mission blue butterfly	lupine (<i>Lupinus</i> spp.)	Myrtle's silverspot butterfly	blue violet	Oregon silverspot butterfly	blue violet	Palos Verdes blue butterfly	Santa Barbara milkvetch (<i>Astragalus trichopodus</i>), common deerweed (<i>Acmispon glaber</i>)	San Bruno elfin butterfly	broadleaf stonecrop (<i>Sedum spathulifolium</i>), manzanita (<i>Arctostaphylos</i> spp.), huckleberry (<i>Vaccinium</i> spp.)				
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Mitigation Measures		Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Smith's blue butterfly	seacliff buckwheat, seaside buckwheat (<i>Eriogonum latifolium</i>)				
Quino checkerspot butterfly	dwarf plantain, purple owl's clover				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Mitigation Measure BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities)</p> <p>If treatment activities would occur within the limited range of any state or federally listed beetle, fly, grasshopper, or snail, and these species are identified as occurring or having potential to occur due to the presence of potentially suitable habitat during review and surveys for SPR BIO-1 and surveys for SPR BIO-10, then the following measures will be implemented:</p> <ul style="list-style-type: none"> ▶ To avoid and minimize impacts to Mount Hermon June beetle and Zayante band-winged grasshopper, treatment activities will not occur within "Sandhills" habitat in Santa Cruz County, the only suitable habitat for these species. ▶ To avoid and minimize impacts to Casey's June beetle, Delhi Sands flower-loving fly (<i>Rhaphiomidas terminates abdominalis</i>), Delta green ground beetle (<i>Elaphrus virisis</i>), Morro shoulderband snail, Ohlone tiger beetle (<i>Cicindela ohlone</i>), and Trinity bristle snail, treatment activities will not occur within habitat in the range of these species that is deemed suitable by a qualified RPF or biologist with familiarity of the species. <p>If the project proponent cannot implement the measures above to avoid mortality, injury or disturbance to listed beetles, flies, grasshoppers, and snails, or degradation of suitable habitat such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.</p>	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	N/A	N/A	N/A
<p>Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities)</p> <p>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</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	Prior to and during all treatment activities.	SMCP/ SMRCD	SMCP/ SMRCD

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>coastal scrub habitat containing sufficient floral resources within the range of the species), then the project proponent will implement the following measures, as feasible:</p> <ul style="list-style-type: none"> ▶ 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). <p>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.</p> <p>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-</p>				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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.</p> <p>The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status 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.</p>				

Project Specific Implementation: The project area contains potentially suitable habitat for the western bumble bee.

Western bumble bee

As stated in CDFW’s 2023 Survey Consideration for CESA Candidate Bumble Bee Species document, if surveys, such as those performed under SPR BIO-10, determine that suitable nesting, foraging, or overwintering habitat is present within the project area, then it is recommended that a biological monitor be onsite during vegetation and ground disturbing activities that occur during the queen flight period, gyne flight period, and colony active period; according to Table 1 of the CDFW document, western bumble bee’s queen flight season is February-March, colony active period is April-September, and gyne flight season is October-November (California Department of Fish and Wildlife, 2023). This recommendation will be implemented if a qualified biologist or RPF determines that ground disturbing treatment activities cannot feasibly avoid suitable habitat (i.e., open grassland, shrublands, and wet meadows) during the queen and gyne flight periods and colony active period; this project is designed to have ground-disturbing activities predominately in forested environments, which may avoid ideal suitable habitat. Additional site-specific measures to avoid take of this species may be developed following determinations from the implementation of SPR BIO-10.

Mitigation Measure BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory)	Initial Treatment: N	N/A	N/A	N/A
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Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>The project proponent will implement the following measure if treatment activities are planned within the range of desert bighorn sheep, peninsular bighorn sheep, Sierra Nevada bighorn sheep, or pronghorn:</p> <ul style="list-style-type: none"> ▶ Prescribed herbivory activities will be prohibited within a 14-mile buffer around suitable habitat for any species of bighorn sheep within the range of these species consistent with the more stringent recommendations in the Recovery Plan for Sierra Nevada bighorn sheep (USFWS 2007). ▶ Prescribed herbivory activities will be avoided within the range of pronghorn where feasible (where this range does not overlap with the range of any species of bighorn sheep). 	<p>Treatment Maintenance: N</p>			
<p>Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands</p> <p>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:</p> <ul style="list-style-type: none"> ▶ Reference the <i>Manual of California Vegetation</i>, Appendix 2, Table A2, <i>Fire Characteristics</i> (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 <i>Fire in California's Ecosystems</i> (Van Wagtendonk et al. 2018) and the <i>Manual of California Vegetation</i> (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. 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during treatment activities</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▶ 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 <i>Fire in California's Ecosystems</i> (Van Wagtendonk et al. 2018) and the <i>Manual of California Vegetation</i> (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. <p>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</p>				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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).</p> <p>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.</p> <p>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.</p>				
<p>Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands</p> <p>If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement the following actions:</p> <ul style="list-style-type: none"> ▶ Compensate for unavoidable losses of sensitive natural community and oak woodland acreage and function by: 	<p>Initial Treatment: N</p> <p>Treatment Maintenance: N</p>	N/A	N/A	N/A

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▪ restoring sensitive natural community or oak woodland functions and acreage within the treatment area; ▪ restoring degraded sensitive natural communities or oak woodlands outside of the treatment area at a sufficient ratio to offset the loss of acreage and habitat function; or ▪ preserving existing sensitive natural communities or oak woodlands of equal or better value to the sensitive natural community lost through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function. <p>▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and:</p> <ol style="list-style-type: none"> 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. <p>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.</p>				
Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat	Initial Treatment: N	N/A	N/A	N/A

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>If, after implementation of SPR BIO-4, impacts to riparian habitat remain significant under CEQA, the project proponent will implement the following:</p> <ul style="list-style-type: none"> ▶ Compensate for unavoidable losses of riparian habitat acreage and function by: <ul style="list-style-type: none"> ▪ restoring riparian habitat functions and acreage within the treatment area; ▪ restoring degraded riparian habitat outside of the treatment area; ▪ purchasing riparian habitat credits at a CDFW-approved mitigation bank; or ▪ preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value. ▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on riparian habitat that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: <ol style="list-style-type: none"> 1. For preserving existing riparian habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. 2. For restoring or enhancing riparian habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. <p>The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake</p>	<p>Treatment Maintenance: N</p>			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.				
<p>Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands Impacts to wetlands will be avoided using the following measures:</p> <ul style="list-style-type: none"> ▶ 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: <ul style="list-style-type: none"> ▪ No special-status species are present in the wetland habitat 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>Prior to and during all treatment activities.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<ul style="list-style-type: none"> ▪ 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 				
<p>Mitigation Measure BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites</p> <p>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:</p> <ul style="list-style-type: none"> ▶ 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. 	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During treatment activities that contain nursery sites (If nursery sites are identified during surveys)</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>
Greenhouse Gas Emissions				
<p>Mitigation Measure GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns</p> <p>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</p>	<p>Initial Treatment: Y</p>	<p>Prior to and during prescribed burn activity.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire (NWCG 2018):</p> <ul style="list-style-type: none"> ▶ 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. <p>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.</p> <p>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.</p>	<p>Treatment Maintenance: Y</p>			
Hazardous Materials, Public Health and Safety				
<p>Mitigation Measure HAZ-3: Identify and Avoid Known Hazardous Waste Sites</p> <p>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</p>	<p>Initial Treatment: Y</p> <p>Treatment Maintenance: Y</p>	<p>During PSA preparation. Database searches were completed; see PSA/Addendum for results.</p>	<p>SMCP/ SMRCD</p>	<p>SMCP/ SMRCD</p>

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
<p>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.</p>				

6. Attachment B – Project Specific CEQA Findings and Statement of Overriding Considerations

6.1 Introduction

The San Mateo County Parks, referred to herein as "Project Proponent," in the exercise of its independent judgment, makes and adopts the following findings regarding its decision to approve the PCCP Climate and Habitat Resiliency Vegetation Treatment Project, referred to herein as "vegetation treatment project," within the scope of the California Vegetation Treatment Program (CalVTP). This document has been prepared in accordance with the California Environmental Quality Act (Pub. Resources Code, Sections 21000 et seq.) (CEQA) and the CEQA Guidelines (Cal. Code Regs., Tit. 14, Sections 15000 et seq.).

6.2 Statutory Requirements for Findings

Public Resources Code section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" The same section provides that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." (Pub. Resources Code, Section 21002.) Section 21002 goes on to provide that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The mandate and principles announced in Public Resources Code section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. (See Pub. Resources Code, Section 21081, subd. (a); CEQA Guidelines, Section 15091, subd. (a).) For each significant environmental effect identified in an EIR for a project, the approving agency must issue a written finding reaching one or more of three permissible conclusions:

- (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

(CEQA Guidelines, Section 15091, subd. (a); Pub. Resources Code, Section 21081, subd. (a).) Public Resources Code section 21061.1 defines "feasible" to mean "capable of being accomplished in a

successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors.” (See also *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 565.)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a Statement of Overriding Considerations setting forth the specific reasons why the agency found that the project’s “benefits” rendered “acceptable” its “unavoidable adverse environmental effects.” (CEQA Guidelines, Sections 15093, 15043, subd. (b); see also Pub. Resources Code, Section 21081, subd. (b).) The California Board of Forestry and Fire Protection (the Board), adopted Findings and a Statement of Overriding Considerations on December 30, 2019.

Here, as explained in the Board’s Findings and the Draft Program Environmental Impact Report (Draft PEIR) and the Final PEIR (collectively, the “PEIR”), the CalVTP would result in significant and unavoidable environmental effects to the following: Aesthetics; Air Quality; Archaeological, Historical, and Tribal Cultural Resources; Biological Resources; Greenhouse Gas Emissions; Transportation; and Public Services, Utilities, and Service Systems. For reasons set forth in the Board’s Statement of Overriding Considerations, however, the Board determined that overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the CalVTP.

When a responsible agency approves a vegetation treatment project using a within the scope finding for all environmental impacts, it must adopt its own CEQA findings pursuant to Section 15091 of the State CEQA Guidelines, and if needed, a statement of overriding considerations, pursuant to Section 15093 of the State CEQA Guidelines. (See CEQA Guidelines section 15096(h).) According to case law, a responsible agency’s findings need only address environmental impacts “within the scope of the responsible agency’s jurisdiction.” (*Riverwatch v. Olivenhain Municipal Water District* (2009) 170 Cal.App.4th 1186, 1202.) Although each responsible agency must adopt its own findings, such agencies have the option of reusing, incorporating, or adapting all or part of the findings adopted by the Board for the CalVTP PEIR to meet the agency’s own requirements to the extent the findings are applicable to the proposed vegetation treatment project. The following document sets forth the required findings for an agency’s project-specific approval that relies on and implements the CalVTP PEIR.

The Project Proponent adopts these findings to document its exercise of its independent judgment regarding the potential environmental effects analyzed in the PEIR and to document its reasoning for approving the vegetation treatment project under the CalVTP in spite of these effects.

6.3 Background and Project Description

The project aims to enhance the health and vitality of plant communities throughout PCCP by implementing ecologically restorative forest health treatments. These efforts focus on reducing competition among plant species, promoting biodiversity through mixed-species regeneration, and bolstering climate resilience, while simultaneously reducing the severity and risk of wildfires. Additionally, the spread of invasive species within the park will be addressed through treatment activities that align with the CalVTP PSA guidelines.

PCCP's southern region was significantly affected by the CZU Lightning Complex Fire, where suppression efforts successfully stopped the fire's advance along Old Haul Road. Four years later, woody debris of various sizes has accumulated, posing a potential risk for increased fire intensity. In contrast, the northern portion of the park has seen limited management, leading to the growth of dense understory brush and thick duff layers on the forest floor.

Across the park's 5,943 acres of dynamic forest types, some stands have been altered by recent disturbances, while others remain relatively untouched. This variability highlights the need for targeted ecological restoration treatments to improve forest health across the diverse landscape. The proposed treatments will not only enhance forest health and vigor but also reduce the spread and intensity of potential wildfires, particularly along access roads. By creating opportunities for access, these treatments will aid suppression crews in utilizing backburns or other fire management techniques at critical points.

Treated areas will also help slow or increase the potential to mitigate the spread of fires, protecting the park's forest resources and infrastructure. Additionally, these efforts will create continuity with other treated areas across neighboring properties. With nearby campgrounds in PCCP, Memorial County Park, Sam McDonald County Park, and Portola State Park serving as potential ignition points for wildfires due to recreational activities like campfires or equipment malfunctions from recreationalists, reducing fire risks in these areas is paramount.

The CalVTP PSA permitting process ensures that forest health treatments and ongoing maintenance within the park boundaries comply with the Programmatic Environmental Impact Report (PEIR), allowing for sustained, long-term management without a sunset date unless forested conditions change significantly. The primary objective of this restorative project is to selectively thin dense tree stands, remove diseased trees, and manage underlying brush. These efforts will improve forest health, increase climate resilience, and reduce wildfire risk. All work will be conducted using a science-based, environmentally sensitive approach to protect the natural environment.

Initial treatments will involve both mechanical and manual activities, potentially opening opportunities for the future use of prescribed fire. The use of prescribed burning techniques would responsibly reintroduce an important ecological component to the forest, promoting a comprehensive balance across the landscape. While the first phase of the project is well-defined, future maintenance will be dynamic, adapting to evolving ground conditions to ensure long-term forest health.

6.4 Environmental Review Process

The Project Proponent followed the evaluation and reporting process outlined in the PSA and required under the CalVTP.

On April 31st, 2025, Project Proponent submitted to the Board of Forestry the required information regarding this project when it began preparing the PSA. The submittal included:

- GIS data that included project location (as a point);

- project size;
- planned treatment types and activities; and
- contact information for a representative of the project proponent.

Upon adoption of these findings and approval of the project, Project Proponent will submit this completed PSA and associated geospatial data to The Board of Forestry at the time a Notice of Determination is filed. The submittal will include the following:

- The completed PSA Environmental Checklist;
- The completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist);
- GIS data that includes:
 - a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction)

As required under the CalVTP, Project Proponent will submit the following information to the Board of Forestry after implementation of the treatment:

- GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction)
- A post-project implementation report (referred to by the Board of Forestry as a Completion Report) that includes
 - Size of treated area (typically acres);
 - Treatment types and activities;
 - Dates of work;
 - A list of the SPRs and MMs that were implemented; and
 - Any explanations regarding implementation if required by SPRs and MMs (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in MMs BIO-1a and BIO-2b.

6.5 Record of Proceedings

In accordance with Public Resources Code Section 21167, subdivision (e), the record of proceedings for the Project Proponent's decision to approve the vegetation treatment project under the CalVTP includes the following documents at a minimum:

- The certified Final PEIR for the CalVTP, including the Draft PEIR, responses to comments on the Draft PEIR, and appendices;
- All recommendations and findings adopted by the Board in connection with the CalVTP and all documents cited or referred to therein;

- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the treatment project prepared by the Project Proponent, consultants to the Project Proponent, or responsible or trustee agencies with respect to the Project Proponent's compliance with the requirements of CEQA and with respect to the Project Proponent's action on the CalVTP;
- Matters of common knowledge to the Project Proponent, including but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in these findings, in addition to those cited above; and
- Any other materials required for the record of proceedings by Public Resources Code section 21167.6, subdivision (e).

Pursuant to CEQA Guidelines section 15091, subdivision (e), the documents constituting the record of proceedings are available for review during normal business hours at 455 County Center, 4th floor, Redwood City, California. The custodian of these documents is Hannah Ormshaw, Assistant Director.

6.6 and Reporting Program

A Mitigation Monitoring and Reporting Program (MMRP) was adopted by the Board for the CalVTP, and the applicable MMs for this treatment project have been identified in the PSA. The Project Proponent will use the MMRP to track compliance with the CalVTP MMs. The MMRP will remain available for public review during the compliance period. The Final MMRP is attached to and is approved in conjunction with the approval of the treatment project and adoption of these Findings.

6.7 Findings for Determinations of Less Than Significant

The Project Proponent has reviewed and considered the information in the Final PEIR for the CalVTP addressing potential environmental effects, proposed MMs, and alternatives. The Project Proponent, relying on the facts and analysis in the Final PEIR and the treatment project PSA, which were presented to the County of San Mateo, Planning Department and reviewed and considered prior to any approvals, concurs with the conclusions of the Final PEIR and the treatment project PSA regarding the potential environmental effects of the CalVTP and the treatment project.

The Project Proponent concurs with the conclusions in the Final PEIR and treatment project PSA that all of the following impacts will be less than significant:

Aesthetics and Visual Resources

- 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
- 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

Agricultural and Forestry Resources

- 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

Air Quality

- Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk
- Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk
- Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust

Archaeological, Historical, and Tribal Cultural Resources

- Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources
- Impact CUL-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource
- Impact CUL-4: Disturb Human Remains

Biological Resources

- Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife
- Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources
- Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan

Geology, Soils, and Mineral Resources

- Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil
- Impact GEO-2: Increase Risk of Landslide

Greenhouse Gas Emissions

- Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs

Energy Resources

- Impact ENG-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy

Hazardous Materials, Public Health and Safety

- Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials
- Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides

Hydrology and Water Quality

- 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
- 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
- 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
- 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
- Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area

Land Use and Planning, Population and Housing

- Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation
- Impact LU-2: Induce Substantial Unplanned Population Growth

Noise

- Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation
- Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities

Recreation

- Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas

Transportation

- Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures
- Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses

Public Services, Utilities, and Service Systems

- Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs
- Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste

Wildfire

- Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire
- Impact WIL-2: Expose People or Structures to Substantial Risks Related to Post-Fire Flooding or Landslides

Cumulative

- Agriculture and Forestry Resources
- Biological Resources
- Geology, Soils, Paleontology, and Mineral Resources
- Energy Resources
- Hazardous Materials, Public Health and Safety
- Hydrology and Water Quality
- Population and Housing
- Noise
- Recreation
- Wildfire

6.8 Significant Effects and Mitigation Measures

The PEIR identified a number of significant and potentially significant environmental effects (or impacts) that the CalVTP will contribute to or cause. The Board determined that some of these significant effects can be fully avoided through the application of feasible MMs. Other effects, however, cannot be avoided by the adoption of feasible MMs or alternatives and thus will be significant and unavoidable. For reasons set forth in Section 10.2 of the Board's Findings and Statement of Overriding Considerations, however, the Board determined that overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the CalVTP.

The Board adopted the findings required by CEQA for all direct and indirect significant impacts. The findings provided a summary description of each impact, described the applicable MMs identified in the PEIR and adopted by the Board, and stated the Board's findings on the significance of each impact after imposition of the adopted MMs. A full explanation of these environmental findings and conclusions can be found in the Final PEIR; and the Board incorporated by reference into its findings the discussion in those documents supporting the Final PEIR's

determinations. In making those findings, the Board ratified, adopted, and incorporated into the findings the analyses and explanations in the Draft PEIR and Final PEIR relating to environmental impacts and MMs, except to the extent any such determinations and conclusions were specifically and expressly modified by the findings.

Not every individual treatment project will have all of the significant environmental impacts that the CalVTP was determined to contribute to or cause. Additionally, some of the environmental impacts predicted by the CalVTP PEIR to be significant and unavoidable or less than significant after mitigation may be determined in a PSA to be less severe for an individual treatment project than determined in the statewide PEIR. The impacts and MMs identified in Sections 8.1 and 8.2 below reflect the conclusions of the PSA by indicating which of the CalVTP's impacts that this treatment project will contribute to or cause. By indicating the project-specific effects of this treatment project as follows, the Project Proponent's decisionmaker or decision-making body is hereby making the required findings under CEQA regarding the application or feasibility of MMs to reduce those impacts.

6. 8. 1 Findings for Impacts Mitigated to Less Than Significant

The Project Proponent finds that changes or alterations have been required in, or incorporated into, the treatment project which avoid or substantially lessen the significant environmental effects indicated below, as identified in the Final PEIR and the PSA. Implementation of the MMs indicated below to be applicable to the treatment project, which have been required or incorporated into the project, will reduce these impacts to a less than significant level. The Project Proponent hereby directs that these MMs be adopted.

Biological Resources

Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications

- Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA
- Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA
- Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Tree-Nesting and Cavity-Nesting Wildlife)

- 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)
- Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

- Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Shrub-Nesting Wildlife)**
 - 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)
 - Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
 - Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
 - Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)
 - Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
 - Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
 - Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Ground-Nesting Wildlife)**
 - 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)
 - Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
 - Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
 - Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
 - Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
 - Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Burrowing and Denning Wildlife)**
 - 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)
 - Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
 - Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
 - Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands

Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Insects and Other Terrestrial Invertebrates)

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)

Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)

Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)

Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)

Mitigation Measure BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities)

Mitigation Measure BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities)

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

Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands

Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Bats)

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)

Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)

Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)

Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands

Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Ungulates)

- 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)
- Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- Mitigation Measure BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory)
- Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Fish and Aquatic Invertebrates (in wetlands, vernal pools))**
- 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)
- Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands
- Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Amphibians and Reptiles (in wetlands, vernal pools, associated riparian))**
- 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)
- Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

- Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands
- Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function**
 - Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
 - Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
 - Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- Impact BIO-4: Substantially Affect State or Federally Protected Wetlands**
 - Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands
- Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries**
 - Mitigation Measure BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites

Hazardous Materials, Public Health and Safety

- Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites**
 - Mitigation Measure HAZ-3: Identify and Avoid Known Hazardous Waste Sites

6. 8. 2 Findings for Significant and Unavoidable Impacts

The CalVTP PEIR determined that some impacts of the program would be significant and unavoidable, even after implementation of all feasible mitigation. The Project Proponent finds that the treatment project would contribute to or cause the following significant and unavoidable impacts as indicated. Incorporating and implementing the following mitigation measures indicated to be applicable to the treatment project will reduce the severity of this impact, but not to a less-than-significant level. The Project Proponent hereby directs that these MMs be adopted. The Project Proponent therefore finds that changes or alterations have been required in, or incorporated into, the treatment project that will substantially lessen, but not avoid, the significant environmental effect as identified in the PEIR and PSA.

The Project Proponent finds that fully mitigating these impacts are not feasible following the review of any suggested MMs and furthermore, that there are no feasible MMs beyond the MMs indicated below to reduce these impacts. These impacts will remain significant and unavoidable. The Project Proponent concludes, however, that the benefits of the CalVTP and the vegetation treatment project outweigh the significant unavoidable impacts of the Program and treatment project, as set forth in the Board's Statement of Overriding Considerations the Project Proponent's own Statement of Overriding Considerations, if any].

Aesthetics and Visual Resources

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

Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks

Air Quality

Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that Would Exceed CAAQS Or NAAQS and Conflict with Regional Air Quality Plans

Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques

Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk

No feasible mitigation is available.

Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning

No feasible mitigation is available.

Archaeological, Historical, and Tribal Cultural Resources

Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources

Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources

Biological Resources

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Insects and Other Terrestrial Invertebrates - Bumble Bees)

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

Greenhouse Gas Emissions

Impact GHG-2: Generate GHG Emissions through Treatment Activities

Mitigation Measure GHG-2: Implement GHG Emission Reduction Techniques During Prescribed Burns

Transportation

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

No feasible mitigation is available.

Public Services, Utilities and Service Systems

Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity

No feasible mitigation is available.

6. 8. 3 Cumulative

Aesthetics

Cumulative Aesthetics Impact related to Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway

Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks

Air Quality

Cumulative Air Quality Impact related to On-Road Vehicle and Off-Road Equipment Exhaust Emissions

Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques

Archaeological, Historical, and Tribal Cultural Resources

Cumulative Archaeological, Historical, and Tribal Cultural Resources Impact related to Inadvertent Discoveries of Unique Archaeological Resources

Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources

Biological Resources

Cumulative Biological Resources Impact related to Bumble Bees

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

Transportation

Cumulative Transportation Impact related to Vehicle Miles Travelled

No feasible mitigation is available.

Public Services, Utilities and Service Systems

Cumulative Public Services, Utilities, and Service Systems Impact related to Disposal of Biomass

No feasible mitigation is available.

6.9 Statement of Overriding Considerations

As set forth in the Board's adopted Findings, the Board determined that the CalVTP will result in significant adverse environmental effects that cannot be avoided even with the adoption of all feasible MMs, and there are no feasible project alternatives that would mitigate or substantially lessen the impacts. Despite these effects, however, the Board, in accordance with CEQA Guidelines Section 15093, chose to approve the CalVTP because, in its view, the benefits to life, property, and other resources, and the other benefits of the CalVTP, will render the significant effects acceptable.

In the Board's judgment, the CalVTP and its benefits outweigh its unavoidable significant effects. The Board's Findings were based on substantial evidence in the record. The Board's Statement of Overriding Considerations identified the specific reasons why, in the Board's judgment, the benefits of the CalVTP as approved outweigh its unavoidable significant effects.

Exercising its independent judgment and review, the Project Proponent concurs that the benefits of the CalVTP and the treatment project outweigh the significant environmental effects and hereby incorporates by reference and adopts the Board's Statement of Overriding Considerations for the CalVTP.

Any one of the reasons listed in the Statement of Overriding Considerations is sufficient to justify approval of the treatment project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the Project Proponent would stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this section, and the documents found in the Record of Proceedings, which are described and defined in Section 5, above.

- The CalVTP will reduce dire risks to life, property, and natural resources in California.
- The CalVTP reflects the most current and commonly accepted science and conditions in California and allows for adaptation in response to potential evolution and changes in science and conditions.
- The CalVTP reflects the Board's and CAL FIRE's goals. The CalVTP will help the Board and CAL FIRE achieve their central goals for reducing and preventing the impacts of fire in the state, as outlined in the *2018 Strategic Fire Plan for California*. The CalVTP will help to establish a natural environment that is more resilient and built assets that are more resistant to the occurrence and effects of wildland fire.
- The CalVTP will help implement Executive Orders, including:
 - EO B-42-17: Governor Brown's order issued to bolster the state's response to unprecedented tree die-off through further expediting removal of millions of dead and dying trees across the state;
 - EO B-52-18: Governor Brown's order to improve forest management and restoration, provide regulatory relief, and reduce barriers for prescribed fire; and
 - EO N-05-19: Governor Newsom's order directing CAL FIRE to recommend immediate-, medium-, and long-term actions to help prevent destructive wildfires.

- The Board is required by law to comply with SB 1260, signed into law by Governor Brown in February 2018, which improves California forest management practices to reduce the risk of wildfire in light of the changing climate and includes provisions for the CalVTP PEIR to serve as the programmatic CEQA coverage for prescribed burns within the SRA. The CalVTP will bring the Board into compliance with these requirements.
- The Board is required by law to comply with SB 632, signed into law by Governor Newsom in October 2019, which requires the Board to certify a Final PEIR, pursuant to CEQA, for the vegetation treatment program filed with the State Clearinghouse under Number 2019012052 in January 2019. The CalVTP will bring the Board into compliance with this requirement.
- The CalVTP will help to meet California's GHG emission goals consistent with the California Forest Carbon Plan, California's 2017 Climate Change Scoping Plan, Fire on the Mountain: Rethinking Forest Management in the Sierra Nevada, and California 2030 Natural and Working Lands Climate Change Implementation Plan.

7. Attachment C – Project-Specific Review and Survey Guidance for Biological Resources

The following presents a stepwise guide for using the PEIR to determine the potentially affected resources in a project treatment area and the applicable SPRs and MMs.

1) Pre-Treatment Review

- a. Determine the ecoregion in which the treatment area is located.
 - i. Reference Figure 3.6-1
Special-Status Species
- b. Determine which special-status plants, wildlife, and fish may be present within the ecoregion.
 - i. Refer to Appendix BIO-3
 1. Central California Coast
 - a. Table 1a: Special-Status Plants
 - b. Table 1b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
 2. Central California Coast Ranges
 - a. Table 2a: Special Status Plants
 - b. Table 2b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
 3. Colorado Desert
 - a. Table 3a: Special-Status Plants
 - b. Table 3b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
 4. Great Valley
 - a. Table 4a: Special-Status Plants
 - b. Table 4b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
 5. Klamath Mountains
 - a. Table 5a: Special-Status Plants
 - b. Table 5b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
 6. Modoc Plateau
 - a. Table 6a: Special-Status Plants
 - b. Table 6b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
 7. Mojave Desert
 - a. Table 7a: Special-Status Plants
 - b. Table 7b: Special-Status Wildlife

- c. Table 19: Special-Status Fish
- 8. Mono
 - a. Table 8a: Special-Status Plants
 - b. Table 8b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 9. Northern California Coast
 - a. Table 9a: Special-Status Plants
 - b. Table 9b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 10. Northern California Coast Ranges
 - a. Table 10a: Special-Status Plants
 - b. Table 10b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 11. Northern California Interior Coast Ranges
 - a. Table 11a: Special-Status Plants
 - b. Table 11b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 12. Northwestern Basin and Range
 - a. Table 12a: Special-Status Plants
 - b. Table 12b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 13. Sierra Nevada
 - a. Table 13a: Special-Status Plants
 - b. Table 13b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 14. Sierra Nevada Foothills
 - a. Table 14a: Special-Status Plants
 - b. Table 14b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 15. Southeastern Great Basin
 - a. Table 15a: Special-Status Plants
 - b. Table 14b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 16. Southern California Coast
 - a. Table 16a: Special-Status Plants
 - b. Table 16b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish
- 17. Southern California Mountains and Valleys
 - a. Table 17a: Special-Status Plants
 - b. Table 17b: Special-Status Wildlife
 - c. Table 19: Special-Status Fish

18. Southern Cascades

- a. Table 18a: Special-Status Plants
- b. Table 18b: Special-Status Wildlife
- c. Table 19: Special-Status Fish
- ii. Obtain an updated review of CNDDDB and CNPS databases, relevant Biogeographic Information and Observation System (BIOS) queries, and relevant general and regional plans by a qualified RPF or biologist.
Wetlands, Waters of the United States or State, Riparian Habitat, Sensitive Natural Communities
- c. Determine whether there are wetlands or other aquatic resources within the ecoregion, and how many acres of each is present.
 - i. All ecoregions - Table 3.6-2
- d. Determine which habitat types and sensitive natural communities are present within the ecoregion, and how many acres of each is present.
 - i. Central California Coast – Table 3.6-3
 - ii. Central California Coast Ranges – Table 3.6-5
 - iii. Colorado Desert – Table 3.6-7
 - iv. Great Valley – Table 3.6-9
 - v. Klamath Mountains – Table 3.6-11
 - vi. Modoc Plateau – Table 3.6-12
 - vii. Mojave Desert – Table 3.6-13
 - viii. Mono – Table 3.6-15
 - ix. Northern California Coast – Table 3.6-16
 - x. Northern California Coast Ranges – Table 3.6-18
 - xi. Northern California Interior and Coast Ranges – Table 3.6-20
 - xii. Northwestern Basin and Range – Table 3.6-21
 - xiii. Sierra Nevada – Table 3.6-22
 - xiv. Sierra Nevada Foothills – Table 3.6-24
 - xv. Southeastern Great Basin – Table 3.6-26
 - xvi. Southern California Coast – Table 3.6-27
 - xvii. Southern California Mountains and Valleys – Table 3.6-29
 - xviii. Southern Cascades- Table 3.6-31
- e. Review descriptions of each CWHR habitat type.
 - i. All ecoregions - Appendix BIO-1

Habitat Conservation Plans, Local Plans, and Policies

- f. Identify Habitat Conservation Plans within the Ecoregion
 - i. Central California Coast – Table 3.6-4
 - ii. Central California Coast Ranges – Table 3.6-6
 - iii. Colorado Desert – Table 3.6-8
 - iv. Great Valley – Table 3.6-10

- v. Mojave Desert – Table 3.6-14
- vi. Northern California Coast – Table 3.6-17
- vii. Northern California Coast Ranges – Table 3.6-19
- viii. Sierra Nevada – Table 3.6-23
- ix. Sierra Nevada Foothills – Table 3.6-25
- x. Southern California Coast – Table 3.6-28
- xi. Southern California Mountains and Valleys – Table 3.6-30
- g. Identify Local Plans and Policies Pertaining to Biological Resources within the Ecoregion
 - i. The PEIR assumes that any vegetation treatments proposed by local agencies under the CalVTP would be consistent with local plans, policies, and ordinances as outlined in SPR-AD-3. The PEIR does not discuss specific local plans, policies, or ordinances; thus, determining relevant plans, policies, or ordinances would be the responsibility of the project proponent.

2) Reconnaissance-Level Survey of Treatment Area

A qualified RPF or biologist will conduct a reconnaissance-level survey for biological resources within the treatment area, focusing on the following resource areas:

- a. Potential habitat for special-status wildlife and plants;
- b. Riparian habitat or other sensitive natural communities;
- c. State or federally protected wetlands; and
- d. Potential wildlife nursery sites.

3) Focused or Protocol-level Surveys of Treatment Area (Where Protocol Exists)

If the qualified RPF or biologist determines that a special-status plant or wildlife species, riparian habitat, other sensitive natural community, or state or federally protected wetlands may be present based on the presence of suitable habitat, a focused or protocol-level survey for the resource will be conducted.

4) Determine Potential Impact Mechanisms and Relevant Mitigation Measures for Sensitive Biological Resources Determined to Be Present or Likely to Be Present

- a. Special-Status Plants
 - i. Refer to Impact BIO-1
 - 1. Refer to the relevant treatment activity(ies)
- b. Special-Status Wildlife
 - i. Group special-status wildlife determined to be present or likely to occur by life history characteristics.
 - 1. Refer to Impact BIO-2: Table 3.6-32
 - ii. Determine potential residual impact for each life history group after implementation of SPRs.
 - 1. Refer to Impact BIO-2: Table 3.6-33
 - iii. Refer to the relevant treatment activity(ies)
- c. Riparian Habitat and Other Sensitive Natural Communities
 - i. Refer to Impact BIO-3
 - 1. Refer to the relevant treatment activity(ies)

- d. State or Federally Protected Wetlands
 - i. Refer to Impact BIO-4
- e. Wildlife Movement Corridors or Wildlife Nurseries
 - i. Refer to Impact BIO-5

8. Attachment D – Biological Resources – Sensitive Species

Botanical Species

Anderson's manzanita (*Arctostaphylos andersonii*)

Description/ Status:

Arctostaphylos andersonii, or Anderson's manzanita, is a shrub species endemic to the Santa Cruz Mountains of California listed as a 1B.2 species under the CRPR. This species is tree-like and can reach 2-5 m in height, is covered with bristles, and has pink, urn-shaped flowers that bloom in early to late spring. The bark is smooth and dark brown-red in coloration with alternate, oblong, heart-shaped leaves.



Habitat:

This species grows in openings in redwood forests or near forest edges, usually between 197 to 2493 ft in elevation. The Anderson manzanita favors hot areas in broadleaved upland forests, chaparral communities, and North coast coniferous forests. Blooms November-May.

Proximity/Potential for occurrence:

Known to occur. Anderson's manzanita has been identified on top of Butano Ridge along Butano Ridge Fire Road.

King's mountain manzanita (*Arctostaphylos regismontana*)

Description/Status:

The King's mountain manzanita, or *Arctostaphylos regismontana*, is shrub endemic to California that is ranked as a 1B.2 species on the CRPR. This erect shrub can reach 2-4 meters tall and consists of dense foliage that is bristly and exudes sticky resins. The flowers are cone-shaped and make up a cluster of white or pink flowers.

Habitat:

This species grows in openings on granite or sandstone outcrops with fast-draining soils. The King's Mountain manzanita favors full sun and low moisture habitats within chaparral, broadleaf, or coniferous forests. Usually between 787 to 2313 ft in elevation. Blooms December-April.



Proximity/ Potential for occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*)

Description/Status:

Astragalus pycnostachyus var. *pycnostachyus*, or the coastal marsh milk-vetch, is a herb species listed as 1B.2 under the CRPR that is endemic to the California coastline. This species can reach up to 1 meter tall with hairy, cupped leaflets. The inflorescence consists of many cone-shaped yellow flowers.

Habitat:

The coastal marsh milk-vetch favors cool areas in coastal dune or scrub communities and often favors moist areas in marshes and swamps along the coast, usually in elevations between 0 to 509 ft. Blooms April-October.



Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat

Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*)

Description/ Status:

Chorizanthe pungens var. *hartwegiana*, or the Ben Lomond spineflower, is federally endangered and a CRPR 1B.1 species. This annual herb is erect with hairy, reddish stems. Leaves are oblanceolate and form a basal rosette at the lowest nodes. The cymose inflorescence is surrounded by pink to purple bracts with tube-shaped, lobed flower that ranges from white to pink in coloration.



Habitat:

The Ben Lomond spineflower grows in marine sand deposits within sandhill chaparral communities and lower montane coniferous forests and is known to occur between 334 to 1558 ft in elevation. Blooms April-July.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

western leatherwood (*Dirca occidentalis*)

Description/Status:

Dirca occidentalis, or the western leatherwood, is a shrub endemic to the San Francisco Bay area of California and is listed as a 1B.2 species under the CRPR. This species can reach approximately 2 meters in height and has mottled grey bark with light green, oval leaves. The yellow flowers usually precede the leaves and dangle upside down with filament that exceed the length of the petals.



Habitat:

This species grows in moist locations with partial shade. The western leatherwood can be found in riparian or wetland habitats within chaparral, cismontane woodlands, north coast coniferous forests and broadleaved upland forests. It is known to occur between 82 to 1394 ft in elevation. Blooms January-March (April).

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

San Mateo woolly sunflower (*Eriophyllum latilobum*)

Status/Description:

Eriophyllum latilobum, or the San Mateo woolly sunflower, is state and federally endangered and is listed as a 1B.1 species under the CRPR. This flowering herb can reach up to 3 feet tall and has triangularly lobed leaves. The inflorescence is comprised of ray and disc flowers that are yellow in coloration that is encompassed with acute phyllaries.



Habitat:

This species favors oak woodlands and grows in foothill woodland, cismontane woodland, coastal scrub, lower montane coniferous forest. It is known to occur between 98 to 2001 ft in elevation. Blooms May-June.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

minute pocket moss (*Fissidens pauperculus*)

Description/ Status:

Fissidens pauperculus, or the minute pocket moss, is listed as a 1B.2 species under the CRPR. This species has oblong leaves that are strongly folded and light green to dark green in coloration. The leaves consist of the 3 parts including the strongly folded lamina, apical lamina, and dorsal lamina.



Habitat:

Minute pocket moss grows on bare, moist soil banks commonly near the base of redwood trees.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

Toren's grimmia (*Grimmia torenii*)

Description/ Status:

Grimmia torenii, or Toren's grimmia, is a moss that is listed as a 1B.3 species under the CRPR. This species reaches approximately 1.5 cm in length and appears green, grey-green, opaque-green, to black in coloration. The leaves are ovate-lanceolate with entire to incurved margins. The urns are erect and symmetrical and smooth to slightly wrinkled when dry.



Habitat:

This species favors rocky openings within chaparral, cismontane woodland, and lower montane coniferous forest communities between 1066 to 3806 feet in elevation.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

Vaginulate grimmia (*Grimmia vaginulata*)

Description/ Status:

Vaginulate grimmia, or Vaginulate grimmia, is a moss that is listed as a 1B.1 species under the CRPR. This species was recently classified/discovered in 2011. It is characterized by its very small plants that are julaceous wet or dry, upper leaves with hyaline margins, dissected peristome, and a conspicuous and persistent ochrea sheathing the entire seta to just below the base of the capsule (Kellman 2011).



Habitat:

This species favors limestone, rocky openings, boulder and rock walls open chaparral between 2247 and 3724 ft in elevation.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

Butano Ridge cypress (*Hesperocyparis abramsiana* var. *butanoensis*)

Description/ Status:

Hesperocyparis abramsiana var. *butanoensis*, or the Butano Ridge cypress, is a tree endemic to California and is listed as a 1B.2 species under the CRPR. This species can reach approximately 15 meters in height and has fibrous bark with thin vertical strips or plates. The needles are scale-like and bright to deep green in coloration. Male cones are quadrangular and contain approximately 4-6 pollen sacs per scale. Mature seed cones are spheric to widely elliptic, brown in coloration, and contain approximately 8-10 scales.



Habitat:

This species is known only to occur along the Butano Ridge within the Santa Cruz Mountains within chaparral or closed-cone pine forest communities between 400 and 490 meters in elevation.

Proximity/ Potential for Occurrence:

Known to occur. A small population of Butano Ridge cypress are found on Butano Ridge inside the park boundary.

Lengener (*Legenere limosa*)

Status/Description:

Legenere limosa, or legener, is an herb species that is listed as a 1B.1 under the CRPR. This species has a slender, stiff, fleshy stem with erect lateral branches and narrowly triangular leaves. The inflorescence is an ovate raceme with triangular, white petals.

Habitat:

This species grows in wetlands and favors vernal-pools, valley grassland, freshwater wetland and wetland-riparian communities between 3 to 2887 feet in elevation. Blooms April-June.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.



Point Reyes meadowfoam (*Limnanthes douglasii* spp. *sulphurea*)

Description/ Status:

Limnanthes douglasii spp. *sulphurea*, or the Point Reyes meadowfoam, is annual herb endemic to California that is listed as a 1B.2 species under the CRPR. The Point Reyes meadowfoam can reach approximately 1.6 feet tall and develops yellow flowers that consist of five notched, or heart-shaped, petals with yellow anthers. The leaflets are ovate and irregularly toothed or lobed.

Habitat:

This species favors full-sun locations within wetland and coastal prairie communities on the edges of meadows, freshwater-marshes, and vernal-pools, generally below 3,300 feet in elevation. Blooms May-July.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.



arcuate bush-mallow (*Malacothamnus arcuatus*)

Description/ Status:

Malacothamnus arcuatus, or the arcuate bush-mallow, is a perennial evergreen shrub endemic to California and is listed as a 1B.2 species by the CRPR. This woody, multi-stemmed shrub is erect reaching up to 5 meters in height with densely tomentose, or wooly stems, and leaves. This species has clusters of rose-like flowers that are pink and encompassed by wooly sepals and leaves.

Habitat:

This species favors habitats in early-successional or post-burn slopes within chaparral and cismontane woodland communities between 3 to 2411 feet in elevation. Blooms April-September.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.



woodland woollythreads (*Monolopia gracilens*)

Description/ Status:

Monolopia gracilens, or the woodland woollythreads, is endemic to California and is listed as a 1B.2 species by the CRPR. It is an annual herb producing a slender, branching stem up to about 80 centimeters tall. It is usually somewhat woolly in texture. The inflorescences at the ends of stem branches bear small hemispheric flower heads. The golden ray florets are up to a centimeter long and surround a center of many disc florets. The fruit is an achene about 2 millimeters long.

Habitat:

It grows in grassland, open chaparral, oak woodland, mixed evergreen forest, and redwood forests, often on serpentine soils in elevations between 328 to 3937 feet in elevation. Blooms (February), March-July. Non-native species, such as *Avena fatua*, are a threat to the woodland woollythreads.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.



Kellman's bristle moss (*Orthotrichum kellmanii*)

Description/ Status:

Orthotrichum kellmanii, or Kellman's bristle moss, is a moss endemic to California that is listed as a 1B.2 species under the CRPR. This species appears to be green to yellow to orange in coloration with slightly succulent leaves that have pointed tips.

Habitat:

This species favors sandstone and carbonate rocks within chaparral and cismontane woodlands between 1125 to 2247 feet in elevation. Blooms January-February.



2014 Calbryos Group

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

Dudley's lousewort (*Pedicularis dudleyi*)

Description/ Status:

Pedicularis dudleyi, or Dudley's lousewort, is a state rare species and is listed as a 1B.2 species under the CRPR. This perennial herb is woolly, single or multi-stemmed and reach approximately 1 foot in height. The leaves are divided into lobed leaflets. The inflorescence, a raceme, consists of club-shaped flowers with upper and lower lips that are white or pink to purple in coloration.

Habitat:

Dudley's lousewort grows in chaparral, cismontane woodlands, north coast coniferous forests, and valley or foothill grasslands usually in elevations between 197 to 2953 feet in elevation. Blooms April-June.



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Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

white-flowered rein orchid (*Piperia candida*)

Description/ Status:

This species is a perennial herb that can reach approximately 1.5 feet in height. The stems are erect and is spike-like near the inflorescence, which has many small, white flowers with green veins. The basal leaves are approximately 18 cm long and 3 cm wide and are reduced in size higher up on the stem.



Habitat:

The white-flowered rein orchid grows in coniferous forests within coastal mountain ranges usually in elevations between 148 to 5299 feet in elevation. Blooms (March), May- September.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*)

Description/Status:

The Choris' popcornflower, or *Plagiobothrys chorisianus* var. *chorisianus*, is a California endemic herb that is listed as a 1B.2 species under the CRPR. This species has a decumbent to erect, branching stem with spiny hairs and sheathing leaves. The inflorescence have bracts at the base and are comprised of a white, lobed corolla with yellow coloration from the center.



Habitat:

This species grows in moist, grassy areas in wetlands or ephemeral drainages. The Choris' popcornflower favors coastal prairie, chaparral, northern coastal scrub, and wetland-riparian communities between 49 to 525 ft in elevation. Blooms March-June.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

Santa Cruz clover (*Trifolium buckwestiorum*)

Description/ Status:

Trifolium buckwestiorum, commonly known as the Santa Cruz clover, is endemic to California where it has very few occurrences in Monterey, Santa Cruz, and Sonoma counties. This Santa Cruz clover is listed under the CRPR as a 1B.1 species. The foliage is green or reddish, with finely toothed leaflets, and a head-like inflorescence with pale pink or white, tubed flowers.



Habitat:

This species favors habitat in disturbed grassy or gravelly coastal prairie or mixed evergreen forests in elevations between 344 to 2001 ft in elevation. Blooms April-October. Feral pig rooting is a threat to this species.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

Wildlife Species

Santa Cruz black salamander (*Aneides niger*)

Description/ Status:

Aneides niger, or the Santa Cruz black salamander, is endemic to California and is listed as a CDFW species of special concern. Males have snouts that range from 68.8-85.7 mm and a head width of 10.5-16.3 mm, whereas female snouts range from 58.3 mm-73.7 mm and head widths range from 8.9-10.9 mm. Adults have uniform shiny, black coloration without spots. Juveniles have small white spots that cover dorsal and ventral surfaces, that occasionally exhibit grey, green, or black coloration beneath the spotting.



Habitat:

This species occurs in mixed deciduous woodland, coniferous forests, and coastal grasslands in California. This species can be found in riparian areas near streams and under damp debris, but do not inhabit streams.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

pallid bat (*Antrozous pallidus*)

Description/Status:

The pallid bat, or *Antrozous pallidus*, is a CDFW species of special concern. Adults can reach approximately 60 to 85 mm in length including its tail and has a wingspan of approximately 90 to 120 mm wide. This species is dorsally cream-yellow to light brown in color and pale to white on its underside with woolly fur. The pallid bat has wart-like glands near the nose that secrete an odor as a defense mechanism and have a U-shaped ridge above their nostrils. The ears are large and pointed with serrated edges.



Habitat:

This species favors rocky outcrops in semi-arid climates within grasslands, chaparral, oak woodlands, and coniferous forests. The pallid bat diet consists of ground-dwelling prey like small mammals or reptiles and large flying or ground-dwelling insects.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

long-eared owl (*Asio otus*)

Description/ Status:

Asio otus, or the long-eared owl, is a CDFW species of special concern. This species has a square-shaped head with long ear tufts and can reach approximately 35-40 cm in length and have a wingspan that ranges approximately from 90-100 cm. Long-eared owls have buff, black, and brown patterns on the body, black, orange, and buff ear tufts, and faces with orange lines on the outside of the yellow eyes and white lines in between the eyes.



Habitat:

This species roosts in forests with dense vegetation near grasslands or shrublands for foraging. The long-eared owl uses abandoned stick nests in tree cavities or cliffs, where they lay 2-10 white eggs. This species preys on small mammals in open ground or sparse forests. The diet predominately consists of mice, kangaroo rats, shrews, voles, rabbits, and occasionally small birds.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

burrowing owl (*Athene cunicularia*)

Description/ Status:

Athene cunicularia, or the burrowing owl, is a CDFW species of special concern. The burrowing owl is a small bird measuring 19-25 cm tall and have a wingspan of approximately 53-61 cm. This species has bright yellow eyes, white brows, and no ear tufts. Adults are brown with striped, white chests and white spots on the back. Young burrowing owls have no stripes on the chest and only few spots on the back.



Habitat:

Habitat commonly consists of prairies, farmland, airfields, and grazed, non-native grassland. Favorable habitats are primarily open, flat areas with short grass or bare soil. Nesting consists of building a 6-10 ft. long burrow that contains a nest chamber at the end. Evidence of burrows may include feathers and whitewash on the ground. In the west, the monogamous owls will lay 7-10 white eggs that get stained from the soils in the burrow. The burrowing owl diet consists of insects and small mammals or amphibians; hunting primarily occurs at night but will occur day and night during breeding season.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

western bumble bee (*Bombus occidentalis*)

Status/Description:

Bombus occidentalis, or western bumble bee, is a state candidate endangered species. The females, or worker and queens, have 12 antenna segments and six segments with a yellow thorax and yellow sides on the abdominal segment and a reddish-black fifth segment. Males have similar coloration, except they have 7 abdominal segments and 13 antenna segments. This species has six segmented legs with thin wings that are approximately the same size as the body.



Habitat:

This is a pollinator species that associates with a wide range of flowering plants and crops within open coniferous, deciduous and mixed-woodland forests, wet and dry meadows. The western bumble bee is capable of foraging in cold, rainy weather conditions and commonly nests underground.

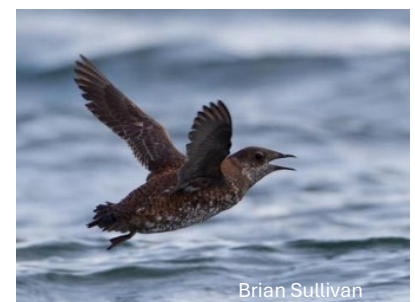
Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

marbled murrelet (*Brachyramphus marmoratur*)

Description/Status:

Brachyramphus marmoratur, or the marbled murrelet, is a state endangered and federally threatened seabird species. The marbled murrelet is a small seabird species that has an approximate wingspan of 10 inches wide. This species appears red-brown with mottled, white spots during the breeding season and appear to have dark grey backsides and white undersides with white patches on the face and shoulder areas during the nonbreeding season.



Habitat:

This species favors nesting sites in old-growth coniferous forests or rocky talus slopes near the Pacific Ocean, up to approximately 15 miles inland. The marbled murrelet nests on large branches approximately 4 inches in diameter or larger that create a platform that may be screened from predators or wind by branches of nearby trees, where the female will lay one yellow, olive, or blue-green egg with brown, black, and lavender specks. This seabird forages in coastal marine habitats, dieting on primarily fish and crustaceans.



Proximity/ Potential for Occurrence:

Known to occur. Marbled murrelets have been identified in PCCP.

Townsend's big eared bat (*Corynorhinus townsendii*)

Description/Status:

The Townsend's big eared bat, or *Corynorhinus townsendii*, is a CDFW species of special concern. This medium-sized bat can reach approximately 90 to 115mm long and has large ears that can reach approximately 38 mm in length and are curved when relaxed. The dorsal side of this species is brown or pale grey and the underside is generally buff or tan colored. The Townsend's big eared bat has two large glands beside the elongated nostrils and there are generally no visible differences between sexes.



Habitat:

This species favors dense coniferous forests, native prairies, and coastal communities usually below 3,300 meters elevation. This bat prefers dark, open caves or cliffs in cold areas for roosting and does not roost in rock crevices. The primary food source for this species is moths, however, beetles and other small insects are also common.

Proximity/ Potential for Occurrence:

May occur. This species may occur in PCCP due to hollowed basal cavities resulting in suitable roosting habitat.

Black swift (*Cypseloides niger*)

Description/Status:

Cypseloides niger is listed by CDFW as a species of special concern. They have a large swift with long, curved, and pointed wings. The tail is slightly notched, but often appears square. It has a tiny, almost invisible bill and very small feet. They are entirely blackish with whitish spots on the side of the forehead that are difficult to see on flying birds. Juveniles are blackish with white edging on the body and flight feathers.



Habitat:

Cypseloides niger nests on cliff ledges and behind waterfalls in areas inaccessible to predators. Forages over forests and open areas.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat

California giant salamander (*Dicamptodon ensatus*)

Description/ Status:

Dicamptodon ensatus, or the California giant salamander, is a CDFW species of special concern. Adults are stout with a long tail reaching about 30 cm in total length. The bodies are light brown to brassy and have distinct dark patches. The front two feet have four toes and the hind feet have five toes.



Habitat:

The California giant salamander requires habitat with cover for hiding, sun protection, and breeding and can be found under rocks, logs, or stones. This species' aquatic habitat consists of lakes, ponds, rivers, streams, or fast-moving water. Females deposit 85-200 eggs underwater and protect the eggs until they hatch. This species has a relatively slow reproduction rate due to long gestation period and they do not reach sexual maturity until they are 5-6 years old.

Proximity/ Potential for Occurrence:

Known to occur. The California giant salamander has been identified in PCCP.

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)

Description/Status:

The San Francisco dusky-footed woodrat, or *Neotoma fuscipes annectens*, is a CDFW species of special concern. This rodent species can reach approximately 9 inches in length and the tail adds approximately 6.5 to 8 inches to its length. The underside of this woodrat is white or grey and the dorsal side is primarily brown or grey in coloration. The San Francisco dusky-footed woodrat has large round ears and light colored, slightly hairy feet.



Habitat:

This species prefers moderate canopy coverage in oak woodland, chaparral or shrubland, and coniferous forest communities. The San Francisco dusky-footed woodrat builds complex nests from sticks and debris that can reach up to approximately 8 feet wide and 6 feet tall. Nests are typically occupied by a single adult, except for a short period of time after the female gives birth to her pups. The diet for this species consists of woody plant species such as maple, coffeeberry, alder, live oak, and elderberry.

Proximity/ Potential for Occurrence:

Known to occur. The San Francisco dusky-footed woodrat has been identified in PCCP.

Coho salmon- central California coast (*Oncorhynchus kisutch* pop. 4)

Description/Status:

Oncorhynchus kisutch pop. 4, or the central California coast Coho salmon (CCC Coho salmon), is a federally and state endangered species. Coho Salmon are a medium to large salmon, with spawning adults typically measuring 55 to 70 cm fork length and weighing from 3 to 6 kg. Spawning males are characteristically dark red on the sides, with the head and back dark green and the belly gray to black. Females are less colorful than males and often appear dull in comparison, with dark pink on the sides. Most spawning males are characterized by a hooked jaw and slightly humped backs. The jaw is less hooked in jacks (2-year olds) and only very slightly hooked in females. Both sexes have small black spots on the dorsal (back) fin and upper lobe of the caudal (tail) fin, with no spots on the lower lobe of the caudal fin. The gums of the lower jaw are usually gray, except for the upper area at the base of the teeth, which is white.



Habitat:

CCC Coho salmon spend approximately the first half of their life cycle rearing and feeding in streams and small freshwater tributaries. Spawning habitat is comprised of small streams with stable gravel substrates. These fish need cold, clean freshwater streams to lay their eggs, along with side channels and floodplains where young fish can find food and hide from predators. The remainder of their life cycle is spent foraging in estuarine and marine waters of the Pacific Ocean. Timing of streamflows is critically important to CCC Coho salmon. Severe high flow events that occur early in winter (December, January) can scour holding pools, move large wood cover, open lagoon mouths for migration, and generally improve Coho habitat, while similar flood events later in the season (February, March) can wash away redds and eggs or flush juvenile CCC Coho out of over-wintering habitat such as pools, side channels, or estuaries.

Proximity/ Potential for Occurrence:

Known to occur. The Coho salmon has been identified in PCCP.

steelhead – central California coast (*Oncorhynchus mykiss irideus pop.8*)

Description/Status:

Oncorhynchus mykiss irideus pop.8, or the central California coast steelhead, is a federally threatened species along the central coast of California. This anadromous trout species can range from approximately 35 to 65 cm in length and can weigh up to approximately 12 pounds. Adults appear primarily silver in coloration with pink cheeks and green backs and often have black spots along the tail and fins. Juveniles resemble adults in color, however, they have an additional dark oval marks located along the lateral line and between the head and dorsal fin.



Habitat:

This is an anadromous fish species that occurs in freshwater Pacific coast streams. This steelhead species will migrate to marine waters once it nears maturity, then returns to freshwater streams for spawning. Typically, this species requires a minimal of approximately 7 inches of water depth for migration and favors spawning habitat between 6 and 24 inches deep, usually in slow moving currents. High water velocities and low water depth can impede on this species' capability to migrate.

Proximity/ Potential for Occurrence:

Known to occur. Steelhead has been identified in PCCP.

mountain lion (*Puma concolor*)

Description/ Status:

Puma concolor, formerly *Felis concolor*, or the mountain lion, is a CDFW species of special concern. Adult mountain lions have a tan coat and white to cream underside. Males and females appear the same in coloration, however, males can reach approximately 6 to 8 feet in total length whereas females are generally smaller reaching approximately 5-7 feet in length. Mountain lion cubs have dark spots on their bodies and rings around their tails that fade as they mature.



Habitat:

This species prefers dense vegetative areas within mountain ranges of coniferous forests, scrub and oak woodlands, and arid communities. Mountain lions are territorial and development has limited their available habitat. This species is an opportunistic hunter that primarily feeds on deer, farm animals, and small mammals such as coyotes, raccoons, and feral pigs.

Proximity/ Potential for Occurrence:

Known to occur. PCCP contains suitable habitat for this species.

California red-legged frog (*Rana draytonii*)

Description/ Status:

Rana draytonii, or the California red-legged frog, is a federally endangered species and CDFW species of special concern. This species ranges from 1.75-5.25 inches long with reddish-brown or brown, gray, or olive coloration. The skin is smooth with small black spots on the back and dark bands on the legs. The hind legs and belly are red on the underside and the chest region is creamy and marbled with gray.



Habitat:

Common habitat consists of locations near ponds or along streams in humid forests, grasslands, and coastal scrub communities that contain plant cover. This species breeds in permanent water sources and requires moist refuges, like animal burrows, for cover in the dry season.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

red-bellied newt (*Taricha rivularis*)

Description/ Status:

The *Taricha rivularis*, or the red-bellied newt, is a CDFW species of special concern endemic to California. Adults can reach approximately 5.5 to 7.5 inches in length including its tail. The skin is grainy and is brownish black on the dorsal side and red-orange on the underside. Males have smoother skin and broad, dark coloring across the vent. Larvae have many fine, black spots along the sides and back with an underdeveloped dorsal fin.



Habitat:

This species occurs in coastal woodlands or redwood forests near streams or rivers. The diet predominately consists of invertebrates. During reproduction, this species becomes aquatic and the females lay eggs near rocks or submerged roots.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

American badger (*Taxidea taxus*)

Description/ Status:

Taxidea taxus, or the American badger, is a CDFW species of special concern. The American badger has thick brown or black fur with white stripes on its cheeks and an upturned nose. They have short and stout legs with a flat body that reaches approximately 1.5-2 ft in length, are muscular, and have long claws. The adult females will prepare a large burrow up to 10 ft below the surface for her offspring.



Habitat:

Habitat consists of open areas such as prairies, farmland, and plains as well as edges of woods. The American badger is a nocturnal carnivore and its diet primarily consists of small rodents, reptiles, birds, and insects.

Proximity/ Potential for Occurrence:

May occur. PCCP may contain potentially suitable habitat for this species.

San Francisco gartersnake (*Thamnophis sirtalis tetrataenia*)

Description/Status:

The San Francisco gartersnake, or *Thamnophis sirtalis tetrataenia*, is a state and federally endangered species endemic to the San Francisco Bay area of California. Adults can reach 18 to 55 inches in length and have large eyes on the sides of their narrow head. This species has many dorsal stripes that are blue-green or greenish yellow to white, black, and red with a blue-green underside and red head.



Habitat:

This species favors openings in grasslands or wetland areas near ponds, marshes, or sloughs and is capable of swimming. During the dry season, the San Francisco gartersnake may become dormant in rodent burrows. The primary diet consists of amphibians, small mammals, reptiles, earthworms, slugs, slugs and leeches.

Proximity/ Potential for Occurrence:

Not expected to occur. This species is not expected to occur in PCCP due to the absence of suitable habitat.

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9. Attachment E - Avoidance Measure Recommendations for MAMU in the Santa Cruz Mountains Following the CZU Lightning Complex

*Portia Halbert's Avoidance Measure Recommendations for Marbled Murrelets in the Santa Cruz
Mountains Following the CZU Lightning Complex Report*



Avoidance Measure Recommendations for Marbled Murrelets in the Santa Cruz Mountains Following the CZU Lightning Complex

AUGUST 2022

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Table of Contents

Introduction	1
Monitoring	1
Audio-Visual (AV) Monitoring	2
Radar Monitoring.....	5
ARU Monitoring	8
ARU Data Summary	16
AV and ARU Survey Stations Location Map	17
Grounded Fledglings and Chicks	18
Noise	19
Timing of Noise Restrictions	19
Marbled Murrelet Response to Noise.....	20
Daily Variation in Noise Vulnerability.....	20
General Sound Assessment and Action Generated Noise Analysis within Huddart County Park, Pescadero Creek County Park, and Big Basin Redwoods State Park	21
Operational Noise	21
Summary.....	24
Recommendations*	25
Lifespan.....	26
References	26

List of Tables

Table 1 Results of 1999 Early Season AV Surveys, Singer and Hammer – Gazos Mtn. Camp	2
Table 2 Results of 1998 Mid-season AV Surveys, Singer and Hammer – Gazos Mtn. Camp.....	3
Table 3 Results of 1999 Late Season AV Surveys, Singer and Hammer – Gazos Mtn. Camp	3
Table 4 Results of AV Surveys in 2010	5
Table 5 Results of 1999 radar surveys for marbled murrelets at Double Low Gazos. Values for the mean (x), standard deviation (s.d.), and coefficient of variation (C.V.) are given at the end of the August values in each column	6
Table 6 Results of Radar Surveys at Other Locations in Gazos Creek Canyon (1998-1999).....	7
Table 7 Results of radar surveys for marbled murrelets at other locations in the Santa Cruz Mountains, 2000, compared to detections recorded at these sites in 1998 and 1999	8
Table 8 Year ARU’s deployed, number of ARU’s deployed, and Notes.....	9
Table 9 Operations Assessment Sound Level Summary Results by Equipment Type	22

List of Figures

Figure 1 Borker's deployments of ARU's at different locations in the Santa Cruz Mountains	10
Figure 2 ARU - 2017 Calling Bouts per Minute at Berry Creek, Fall Creek, and the Gazos Mt. Camp	11
Figure 3 ARU – 2018 Calling Bouts per Minute at Fall Creek, Gazos Mt. Camp, and Redwood Meadows ..	11
Figure 4 ARU – 2019 Calling Bouts per Minute at Butano Girl Scout Creek, Gazos Mt. Camp, and Redwood Meadows	12
Figure 5 ARU – 2020 Calling Bouts per Minute at Butano Girl Scout Creek, Gazos Mt. Camp, and Redwood Meadows	13
Figure 6 ARU – 2021 Calling Bouts per Minute at Berry Creek Falls, Butano Girl Scout Creek, Fall Creek, Gazos Mt. Camp, Huckleberry Campground, Portola Ramada, Ray Linder Butano Bridge, and South Butano Ridge	14
Figure 7 ARU – 2021 San Mateo County Parks Calling Bouts per Minute PCP-FRPO-11 (Rhododendron Creek), PCP-LAHO-7 (Camp Jones Gulch), PCP-MIHI-5 (Tarwater Creek)	15
Figure 8 Equipment Sound Level Averages and Projected Averages by Source Type.....	23

Introduction

Federally threatened and state endangered marbled murrelets (murrelet) nest in the large wide branches found in old growth redwood and Douglas-fir forests. Beginning in 2006, the US Fish and Wildlife Service (USFWS) issued a memo from the Arcata office that outlined potential impacts to murrelets from human generated noise (USFWS 2020). Since that time, State Parks and other landowners have been using the guidance found in this memo to seasonally restrict noise-generating activities.

In August of 2020, the CZU Lightning Complex Fire (CZU Fire) burned 86,509 acres in the Santa Cruz Mountains (SCM) including nearly 70% of the marbled murrelet breeding habitat. Overnight, marbled murrelets experienced a significant loss of habitat in moderate high and high severity burn areas. This fire, along with other recent megafires in California, led to the Governor funding a Wildfire and Forest Resilience Program (WFRP) to address the fuel build up from nearly 200 years of fire suppression.

With recent and more severe wildfires expected in the face of climate change, there is a need to conduct more restorative forest treatments to benefit murrelets. The operational window to implement these treatments is limited by the guidance in the USFWS memo and seasonal wet weather requirements often bounding operations near murrelet areas to very small windows each year, sometimes only 30 days.

The purpose of the document is to evaluate whether there may be localized differences in marbled murrelet behavior supporting wider operational windows, still providing appropriate avoidance measures for murrelets in low to moderate fire severity areas where habitat still exists during the breeding season. A rationale is presented for adjusting the marbled murrelet season for conducting high decibel activities in proximity to murrelet areas beginning August 5th, rather than September 1st. Except for Portola State Park to Pescadero Creek County Park marbled murrelet important areas where August 15th is appropriate and Gazos Mountain Camp marbled murrelet important areas in Butano State Park where September 1st is appropriate; continued survey efforts in these locations will monitor post-CZU Fire behaviors to determine if changes to the operational windows are appropriate. In addition, in areas of low to moderate fire severity where habitat still exists, this document provides a rationale for reducing buffers to 330 feet near occupied or important murrelet areas to allow larger handwork crews and mastication equipment to conduct forest restoration and resiliency treatments greater than normal routine maintenance actions, from March 24th to August 5th. This basis results from an analysis on the effects of sound on murrelets and recent sound analysis work conducted on San Mateo County Parks and State Parks lands.

The following information examines the results of various survey methods and monitoring efforts in the Santa Cruz Mountains; Audio Visual (AV), Radar, and Acoustic Recording Units (ARU) data, including a summary of information on the effects of noise and a recent sound work conducted to evaluate various decibel levels of equipment against ambient noise levels implementing forest restoration treatments to support the rationale for the proposed recommendations.

Monitoring

In order to inform options for adjusting the work period, we need to consider what we know about murrelet use of their forest habitat. There are four survey types available to land managers to monitor marbled murrelets: At Sea Surveys, Inland Forest Audio-Visual (AV) Surveys, Radar Surveys, and

Audio Recording Units (ARU). Of these four types, At Sea Surveys don't reveal much about forest use, leaving the three survey methods available to examine murrelet's seasonal use of forest habitat.

Audio-Visual (AV) Monitoring

Since 1974, many ground based forest surveys were conducted looking for nests in trees with appropriate limbs and platforms that could house murrelets in the Santa Cruz Mountains, with the first nest for the species discovered in Big Basin State Park. AV surveys have been the primary means of monitoring murrelet use of forest habitat through watching their flight patterns and listening for their sound indicating where possible nesting activities may be occurring.

These surveys have limitations, including significant temporal and spatial variability of murrelet use of the forest, weather challenges (fog or mist), observer bias, auditory bias and other unknown factors. Normally, AV surveys are conducted during July, which is considered the peak of the breeding season. Survey efforts are costly, so there are limited AV surveys after July 31th. Because information about murrelet use of the forest late in the season is limited, known monitoring from the Santa Cruz Mountains in August are included in Tables 1 – 7.

This first monitoring example and discussion of survey data includes excerpts taken from Singer & Hamer 1999 in Tables 1, 2, and 3. These show the increase in activity in June and July and the slowing down of the breeding season to minimal detections in early August at Gazos Mountain Camp (Gazos Mtn. Camp).

Table 1 Results of 1999 Early Season AV Surveys, Singer and Hammer – Gazos Mtn. Camp

Date	% Overcast	Number of Detections (# heard-only)	Number of Occupied Behaviors	Number of Single Silent Birds Below Canopy
6/1/99	100	15 (13)	0	0
6/4/99	100	109 (64)	30	7
6/6/99	50-100	32 (16)	12	0
6/7/99	0-50	19 (12)	5	0
6/9/99	0-80	14 (7)	5	0
6/11/99	0-20	17 (5)	7	0
		x = 34.33	x = 9.83	

Table 2 Results of 1998 Mid-season AV Surveys, Singer and Hammer – Gazos Mtn. Camp

Date	% Overcast	Number of Detections (# heard-only)	Number of Occupied Behaviors	Number of Single Silent Birds Below Canopy
7/14/98	0	41 (24)	16	10
7/16/98	0	42 (31)	10	3
7/17/98	20	18 (12)	5	1
7/18/98	0	28 (18)	7	3
7/20/98	100	49 (27)	13	4
7/22/98	100	38 (24)	13	3
		x = 36.00	x = 10.66	x = 4.00

Table 3 Results of 1999 Late Season AV Surveys, Singer and Hammer – Gazos Mtn. Camp

Date	% Overcast	Number of Detections (# heard-only)	Number of Occupied Behaviors	Number of Single Silent Birds Below Canopy
8/12/99	100	7 (6)	1	0
8/13/99	0-95	0 (0)	0	0
8/15/99	100	0 (0)	0	0
8/16/99	100	0 (0)	0	0
8/18/99	100	1 (0)	1	0
8/20/99	0-90	0 (0)	0	0
		x = 1.33	x = 0.33	

A comparison of Tables 1 and 2 shows generally higher numbers of detections in July 1998 than in June 1999, although an exceptionally high number of detections on June 4, 1999 skews the 1999 average upward to approach the 1998 average value (34.3 and 36.0, respectively). These data show that either June or July is better than August for implementation of ground protocol surveys where the objective is to monitor occupied behaviors or other visual and/or auditory behaviors indicative of murrelet nesting in the vicinity.

A comparison of Tables 1 and 3 shows a dramatic decrease in the number of murrelets detected at Gazos Mountain Camp in Butano State Park in the late season compared to the early season. In the June period, murrelets were detected every day with the number of detections ranging from 14 – 109, whereas in August, murrelets were only detected on two days, with 1 and 7 detections recorded. As will be discussed later, there was a similar decrease in the number of radar detections in the Gazos Creek Canyon, a survey location also referred to as Double Low Gazos. This data strongly suggests that most breeding activities had terminated by August 12. Ground surveys from other areas of the Santa Cruz Mountains in previous years also show a decline in inland detections by mid-August (Singer, unpublished data).

Occupied behaviors are recognized as indicators of murrelet nesting in suitable habitat nearby (Pacific Seabird Group; Marbled Murrelet Technical Committee 1994). Occupied behaviors include behaviors such as perching, landing, or attempting to land on branches, flying below tree canopy height, or circling above canopy height. Other than landings, which are rare, the number of single silent birds detected flying below the canopy is arguably the best flight behavior indicator of an active nest nearby. Single birds flying below canopy are often associated with incubation exchanges or feeding visits to a nest (Singer et al 1995). A comparison of Table 2 against Table 1 and 3 shows that an active nest was likely present in July, 1998 due to the amount of occupied behavior and single silent birds below canopy flights ranging from 1-10 on all recorded survey days, but not in June or August of 1999. Note that no single birds were seen in August. These findings suggest that June and July are the best time of year to look for the presence or absence of occupied behaviors related to nesting at Gazos Mountain Camp.

In a second example, surveys documented by Suddjian (Suddjian 2001) from 1991-2001 at Big Basin State Park included only one survey in August, conducted on August 1st, 1998, which resulted in 9 detections. In comparison to the 99 other survey mornings, many of which had detections in the 100- 200 range in June and peaking in mid-July, the August 1, 1998 survey was at the very low end of detections. It should be noted that in 1998 detections were on a downward trend with respect to other survey years, the only other survey days with such low detections were in 2001. Additionally on this day in 1998, no fog was present, which is more likely to result in fewer detections than days when fog is present.

Many surveys were conducted between 2001 and 2021 focusing on June and July with few other surveys in August. Surveys by Suddjian from 2003-2009 and State Park AV surveys in the Santa Cruz Mountains from 2014-2021 did not include any surveys in August. One other year with August AV surveys is known and discussed in Table 4 from Klamath Wildlife Consulting who conducted AV surveys from 2010-2012 and several surveys were done in early August 2010. Most sites were surveyed a total of three times concurrently; one time in June, July and August, with the exceptions of Ben Reis in Butano State Park which was not surveyed in August, and four sites were surveyed multiple times in June and July.

Table 4 Results of AV Surveys in 2010

Date	Location, Park	June Detections	July Detections	August Detections
August 2	Iverson Trail, Portola	31	23, 33, 82	32
	Peters Creek, Portola	18	16, 41, 72	18
	Memorial, Memorial County Park	19	10	4
August 3	Blooms Creek, Big Basin	0	8	0
	Huckleberry Camp, Big Basin	0	1	0
	Sempervirens, Big Basin	0	2	0
August 4	Redwood Meadow, Big Basin	7	37	2
	100 Acre Woods, Big Basin	1	5	0
	Sequoia Flat, Memorial Co. Park	1	8	3
August 5	Little Butano, Butano	42	122	22
	Girl Scout Camp, Butano	8	7, 9, 14, 2, 6	2

Tables 1-4 show August AV surveys mostly resulted in notably fewer detections. These numbers primarily show that the peak of the murrelet season is in July and is tapering off in early August or sooner, where the highest recorded August detections occurred on August 2, 2010 and August 5, 2010 with 32 and 22 detections respectively (Table 4) and the next highest detections following August 5th occurred on August 12, 1999 with 7 detections (Table 3). In two of the more active sites at Portola State Park we see this trend continue, with a similar number of detections into early August as detected in June (Table 4).

Parks will continue to use AV surveys to inform management during the busy peak season in July. However, it is still cost-prohibitive to add surveys to August. Additionally, the PSG Survey Protocol is currently in revision and any changes to it, during the time of this document's life, will be adopted.

Radar Monitoring

Several years of radar work conducted by Singer and Hamer (1999) document murrelet movements into and out of habitat. Several sites were monitored most years from 1998 – 2010. By 2001 it was determined that radar monitoring would best be done in June or July because of the apparent rise of Coefficient of Variation values in August associated with generally lower detections of all types. Therefore, only 1998-2001 include any surveys in August; 1998 and 1999 results are shown in

Table 5 and 6. Again, in comparison to AV monitoring, radar monitoring shows significant drops in detections in August. Radar units can be advantageous because they can detect silent birds in low light or dense fog over a larger area than AV surveys. Additionally, radar units can record flight information, such as direction, speed, and behaviors.

Table 5 Results of 1999 radar surveys for marbled murrelets at Double Low Gazos, also called Gazos Creek Canyon. Values for the mean (x), standard deviation (s.d.), and coefficient of variation (C.V.) are given at the end of the August values in each column.

Date	% Overcast	Number of Detections	In-bound Detections	Out-bound Detections	Other Detections
June 1999					
6/8/99	45 – 85	33	15	18	0
6/9/99	100	34	17	15	2
August 1999					
8/10/99	100	7	1	4	2
8/11/99 ¹	100	10	4	2	4
8/12/99	100	9	1	4	4
8/13/99	0 – 5	10	2	8	0
8/15/99	100	1	0	0	1
8/17/99	100	5	2	3	0
8/19/99	100	9	3	4	2
8/21/99	75	8	1	5	2
		x = 7.38 s.d. = 2.05 C.V. = 0.28	x = 1.75 s.d. = 1.28 C.V. = 0.73	x = 3.75 s.d. = 2.31 C.V. = 0.62	

¹ Twelve minutes of survey period lost due to rain

Table 6 shows the results of nine radar surveys conducted at other locations in 1999 and 1998 to collecting detection values for other nearby canyons to compare with Gazos Creek Canyon (Table 5).

Table 6 Results of radar surveys at other canyon locations in proximity to Gazos Creek Canyon (1998-1999)

Date	Location	% Overcast	Number of Detections
July 1998			
7/18/98	Waddell Creek	0	31
7/19/98	White House Cyn. #1	100	14
7/23/98	White House Cyn. #1	100	7
June 1999			
6/11/99	Pescadero Creek #1	100	22
6/12/99	White House Cyn. #2	40	8
6/13/99	Big Butano Creek	100	21
6/14/99	Waddell Creek	100	52
August 1999			
8/16/99	Pescadero Creek #2	100	2
8/20/99	Waddell Creek	0	10

Table 7 shows five radar surveys conducted at other sites in 2000 collecting detection values for other nearby canyons to compare with Gazos Creek Canyon results from 1999 and 1998 (Table 5). The value at Station Pescadero Creek #2 for mid-August shows the decrease in the number of detections for this area by mid-August, again indicating significant drops in detections in August.

Table 7 Results of radar surveys for marbled murrelets at other locations in the Santa Cruz Mountains, 2000, compared to detections recorded at these sites in 1998 and 1999

Station	Location	2000 Total Detections and (Date)	Prior Year Detections and (Date)
Hill 621	Cloverdale Ranch	47 (7/12/00)	28 (7/14/98)
			23 (7/17/98)
Pescadero Creek #2	Dearborn Park	74 (7/21/00)	2 (8/16/99)
Big Butano	Butano Canyon	55 (7/19/00)	21 (6/13/99)
Little Butano	Butano State Park	24 (7/20/00)	27 (7/21/98)
White House Cyn. #1	Cascade Ranch S.P.	12 (7/22/00)	14 (7/19/98)
			7 (7/23/98)

In combining August detections from Table 5 and 6 from various survey locations, the average number of radar detections between August 10, 1999 and August 21, 1999 is approximately 7.1. In comparison, June 1999 averaged approximately 28.3 radar detections at various locations (Table 5 and 6) and July 2000 averaged approximately 42.4 radar detections at various locations (Table 7). Overall, Tables 1-7 predominantly indicate significant drops in detections resulting from AV and radar surveys, and likely breeding behavior, at the beginning of August in many locations and early August in areas like Gazos Mountain Camp (Table 3).

Although not from the Santa Cruz Mountains, it is worth noting the research conducted by Sanzenbacher et al. (2014) looking at year-round flights using marine radar at three high use sites in Northern California (n = 78 mornings). Murrelet passage rates were relatively low in winter (11%–47% of summer rates), increased in spring, peaked during the summer breeding period (late April–July) and were lowest during the fall molt period adding parallel consideration that there is a significant drop off activity in August in other locations in California.

ARU Monitoring

Lastly, surveys can be conducted through autonomous Acoustic Recording Units (ARU). Borker et al. (2015) tested their use as a cost-effective way to detect the presence of marbled murrelets at

inland sites, and to provide comparable metrics on the relative rates of acoustic activity at a large scale. Specifically, they compared the results of traditional AV counts by human observers to data from automated acoustic surveys at sites in Big Basin and Butano State Parks. Analysis of the data showed that automated surveys detected murrelet calls at all of the sites where human AV surveys also detected them. On average acoustic sensors detected fewer calls per morning than human observers stationed at the same survey sites, but the detection rate between the two methods was significantly correlated (i.e. acoustic sensors detected more calls where people counted more murrelets and vice versa). In addition, the study suggested that automated surveys could improve the statistical power of monitoring efforts by reducing several sources of sampling error common in traditional audio-visual surveys such as low sample size, high sampling variability, and observer bias. Table 8 shows the year and number of ARU units deployed.

Table 8 Year ARU's deployed, number of ARU's deployed, and Notes

YEAR	# ARU	Notes
2010	6	Borker's initial sensor research
2017	3	--
2018	3	--
2019	3	Minor software issues
2020	3	Significant software challenges not all mornings recorded correctly
2021	12	Four ARUs did not record, and minor software issues present

Figure 1 below shows Borker’s 2010 ARU data expanded in graph form. Graphed ARU results depicted by the thick black line show the mean call rate per minute, by day, for murrelets during peak calling period ± 30 minutes from sunrise. The black triangles indicate AV survey efforts. All of Borker’s results indicate a significant drop in murrelet activity before August or in early August again represented by Gazos Mountain Camp. Borker’s ARU deployment occurred at the following locations: Gazos Mountain Camp (GMCA), Girl Scouts Creek (GSCR), Huckleberry Camp (HUCK), 100-Acre Woods (HUND), Little Butano (LBUT), Redwood Meadow (RDMD), and Sempervirens Camp (SEMP).

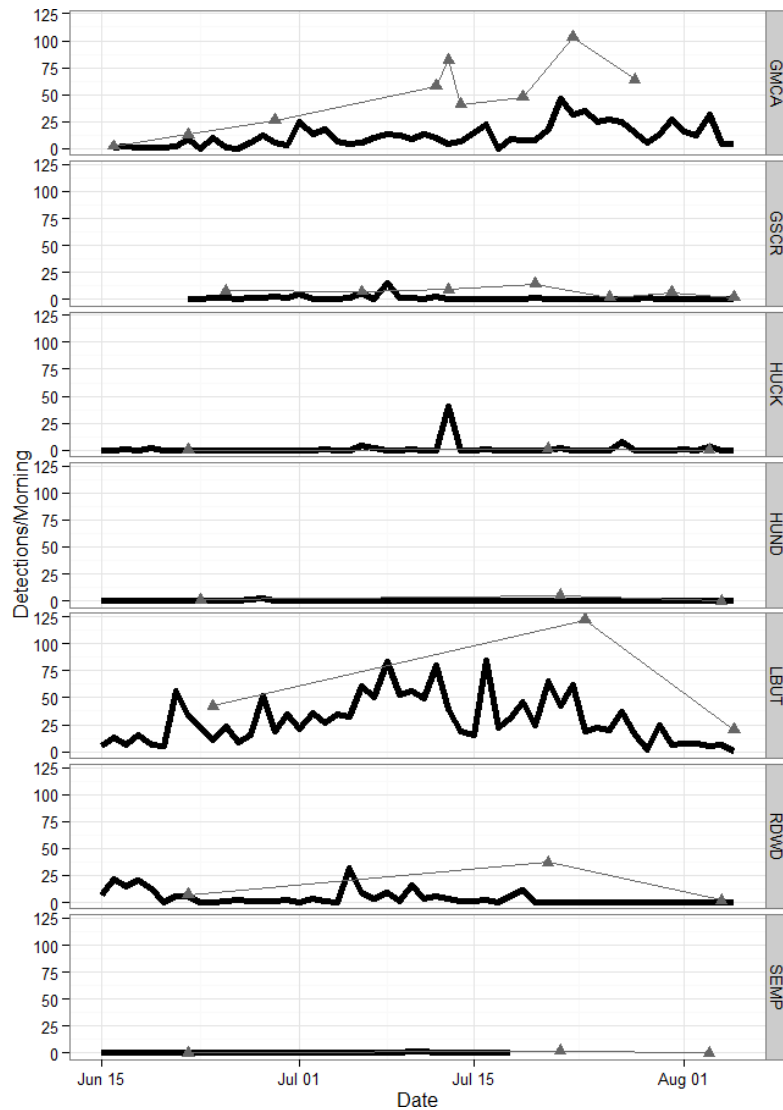


Figure 1 Borker’s 2010 deployments of ARU’s at different locations in the Santa Cruz Mountains

Figure 2 shows State Parks results from 2017 showing no detections after August 1st at two of the sites. Gazos Mountain Camp again having some detections in August consistent with Borker’s 2010 ARU data from Figure 1.

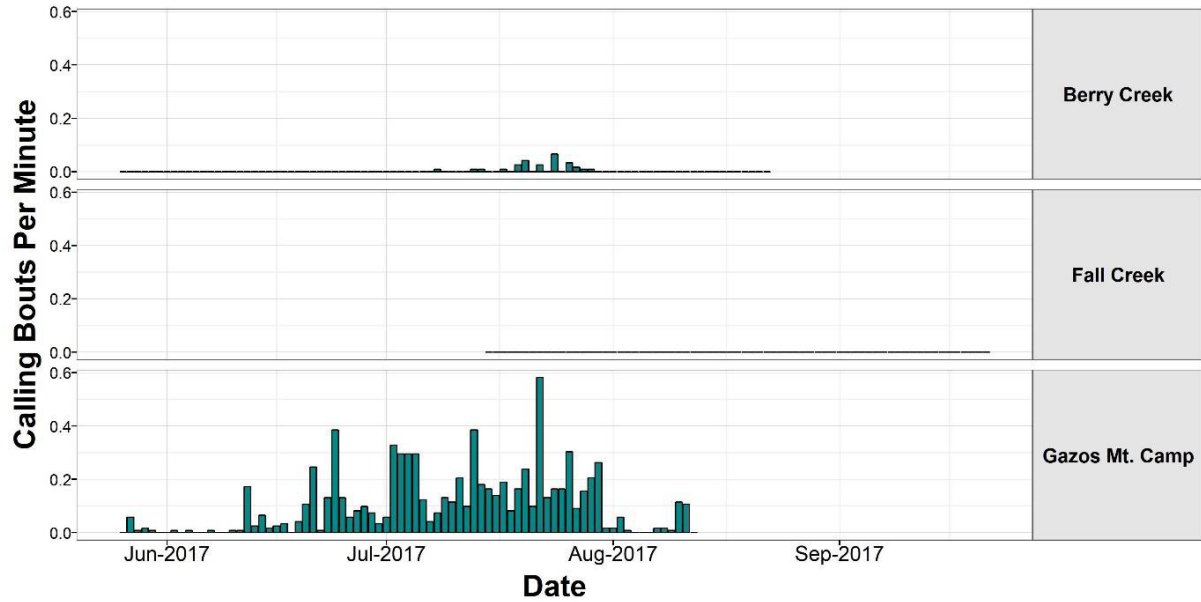


Figure 2 ARU – 2017 Calling Bouts per Minute at Berry Creek, Fall Creek, and the Gazos Mt. Camp

Figure 3 shows State Parks results from 2018, two ARUs show no calls after August 1st. Gazos Mountain Camp continues to have call detections into August.

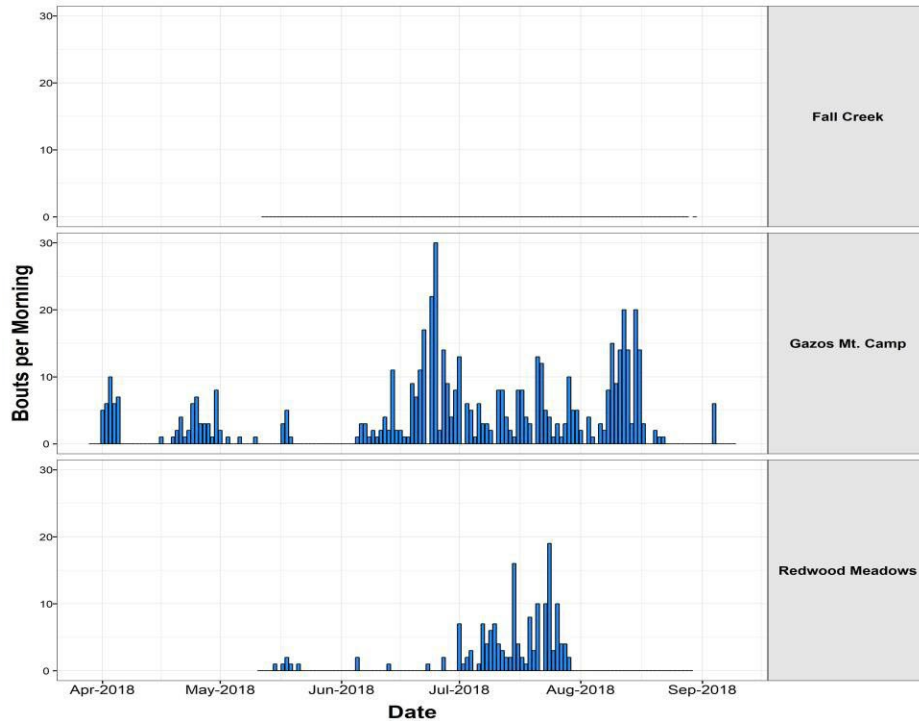


Figure 3 ARU – 2018 Calling Bouts per Minute at Fall Creek, Gazos Mt. Camp, and Redwood Meadows

Figure 4 shows State Parks results from 2019, two ARUs show no calls after August 1st. Gazos Mountain Camp continues to have calls after August 1st.

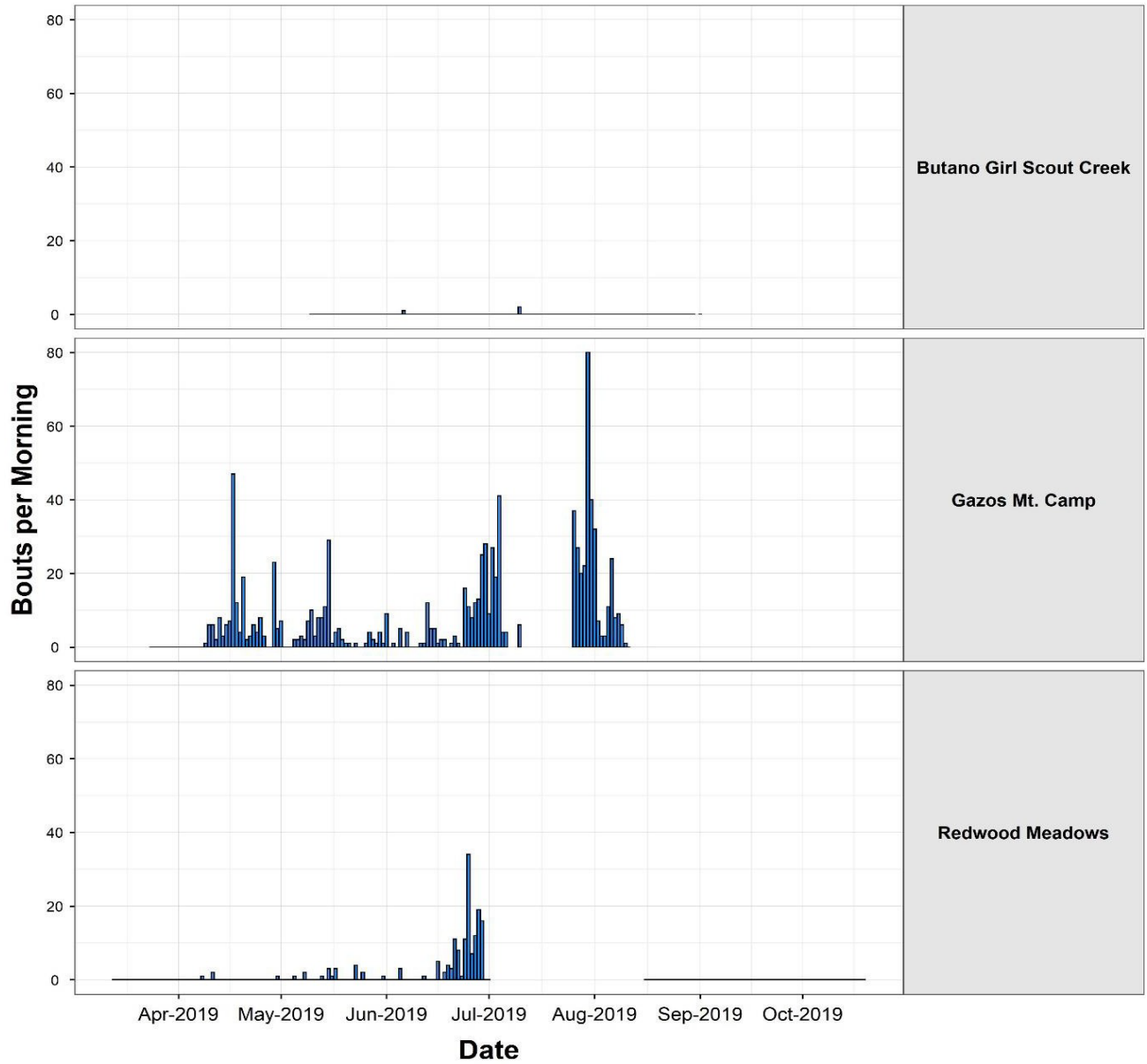


Figure 4 ARU – 2019 Calling Bouts per Minute at Butano Girl Scout Creek, Gazos Mt. Camp, and Redwood Meadows

Figure 5 shows State Park results from 2020, two of the sites have no calls after August 1st and Gazos Mountain Camp had no calls after approximately August 1st. Note that breaks in the line on the X-axis represent days that the ARUs began to experience issues with not recording on some days. Solid lines on the X-axis with no Y-axis variation represent days that the ARU recorded but did not have detections.

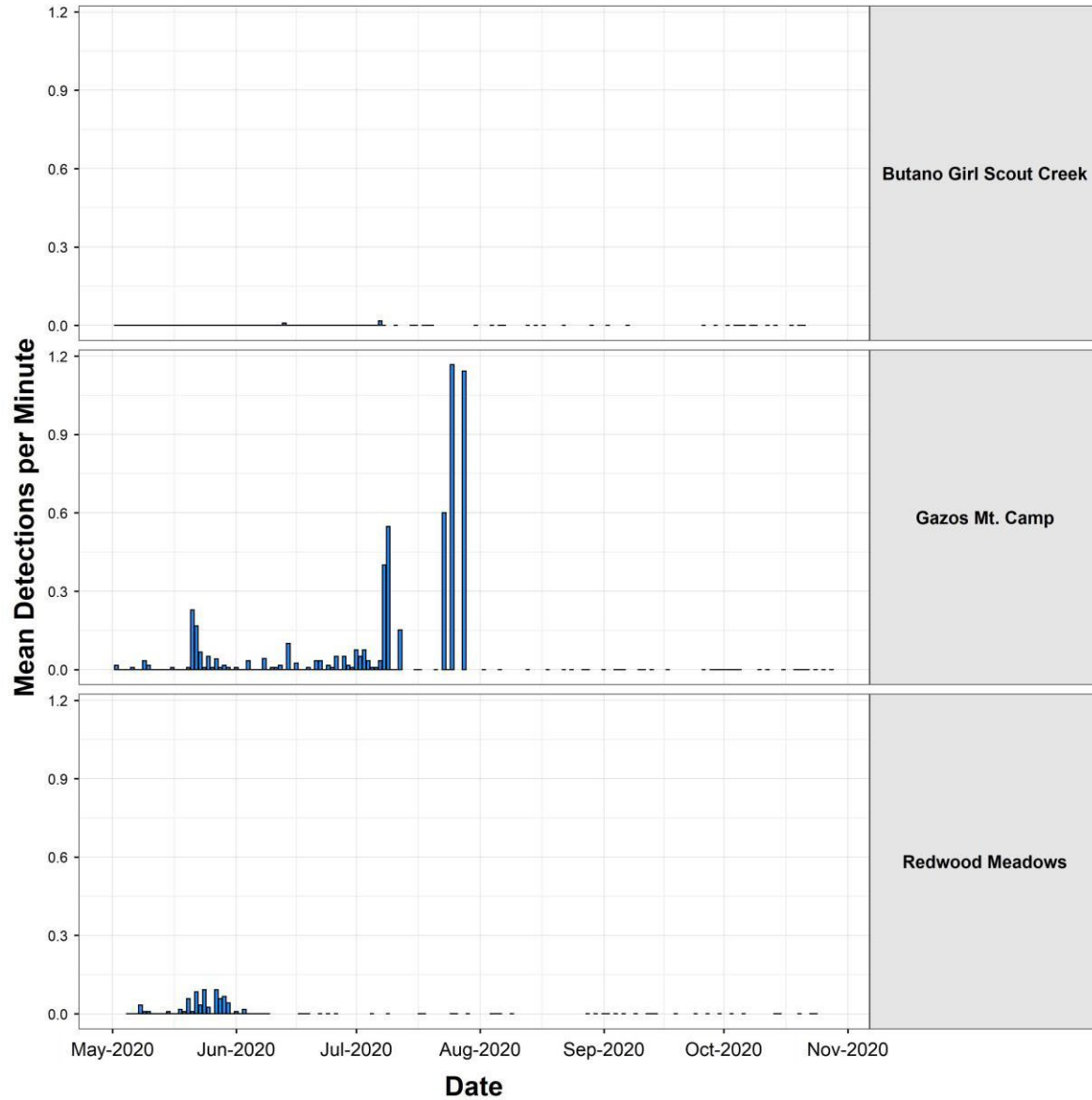


Figure 5 ARU – 2020 Calling Bouts per Minute at Butano Girl Scout Creek, Gazos Mt. Camp, and Redwood Meadows

Figure 6 shows State Park results from 2021 (post-CZU Fire) at eight locations showing almost no detections after August 1st including the Gazos Mountain Camp.

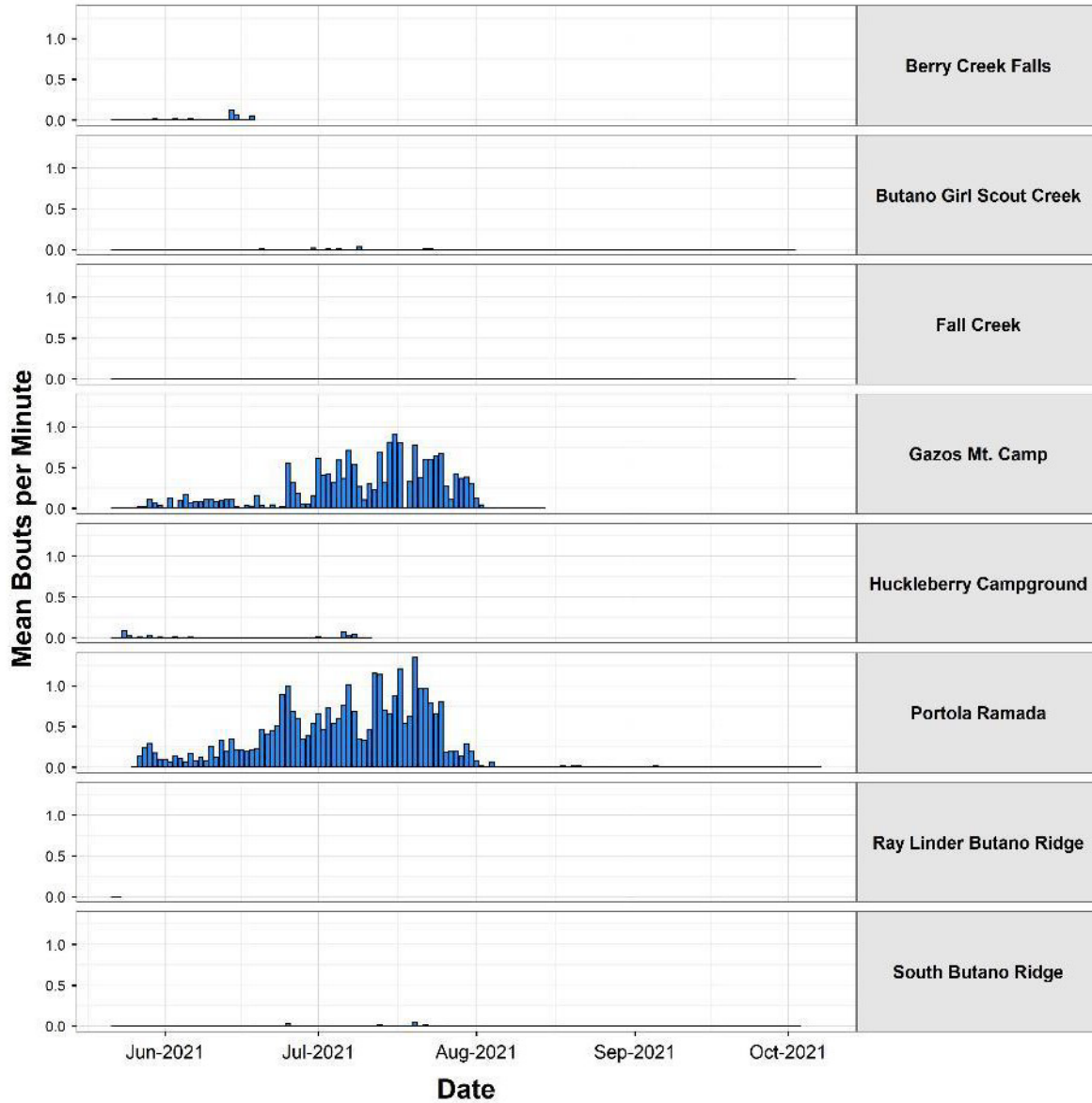


Figure 6 ARU – 2021 Calling Bouts per Minute at Berry Creek Falls, Butano Girl Scout Creek, Fall Creek, Gazos Mt. Camp, Huckleberry Campground, Portola Ramada, Ray Linder Butano Bridge, and South Butano Ridge

Figure 7 shows San Mateo County Parks ARU data in 2021 (post-CZU Fire) with results showing similar patterns as the State Park sites, two locations had no detections in August and one location had some detections in early August only.

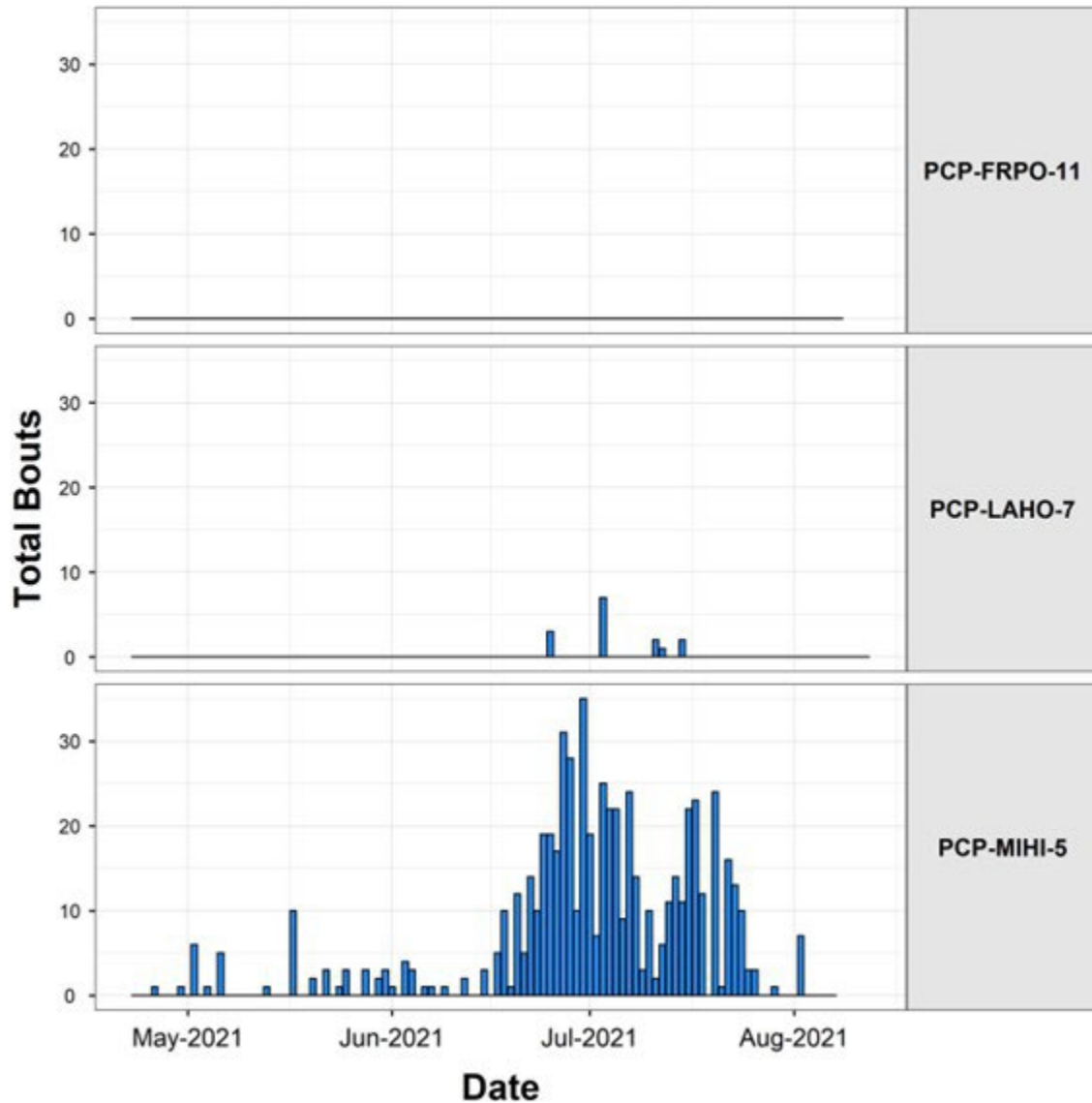


Figure 7 ARU – 2021 San Mateo County Parks Calling Bouts per Minute PCP-FRPO-11 (Rhododendron Creek), PCP-LAHO-7 (Camp Jones Gulch), PCP-MIHI-5 (Tarwater Creek)

Another additional set of ARU data cited here comes from Forester Nadia Hamey, from Hamey Woods, working with Save the Redwoods League in Peters Creek (adjacent to Portola State Park) and at the Cascade Ranch indicating that all three sites show drops to zero for murrelet activity by the beginning of August (Hamey 2020).

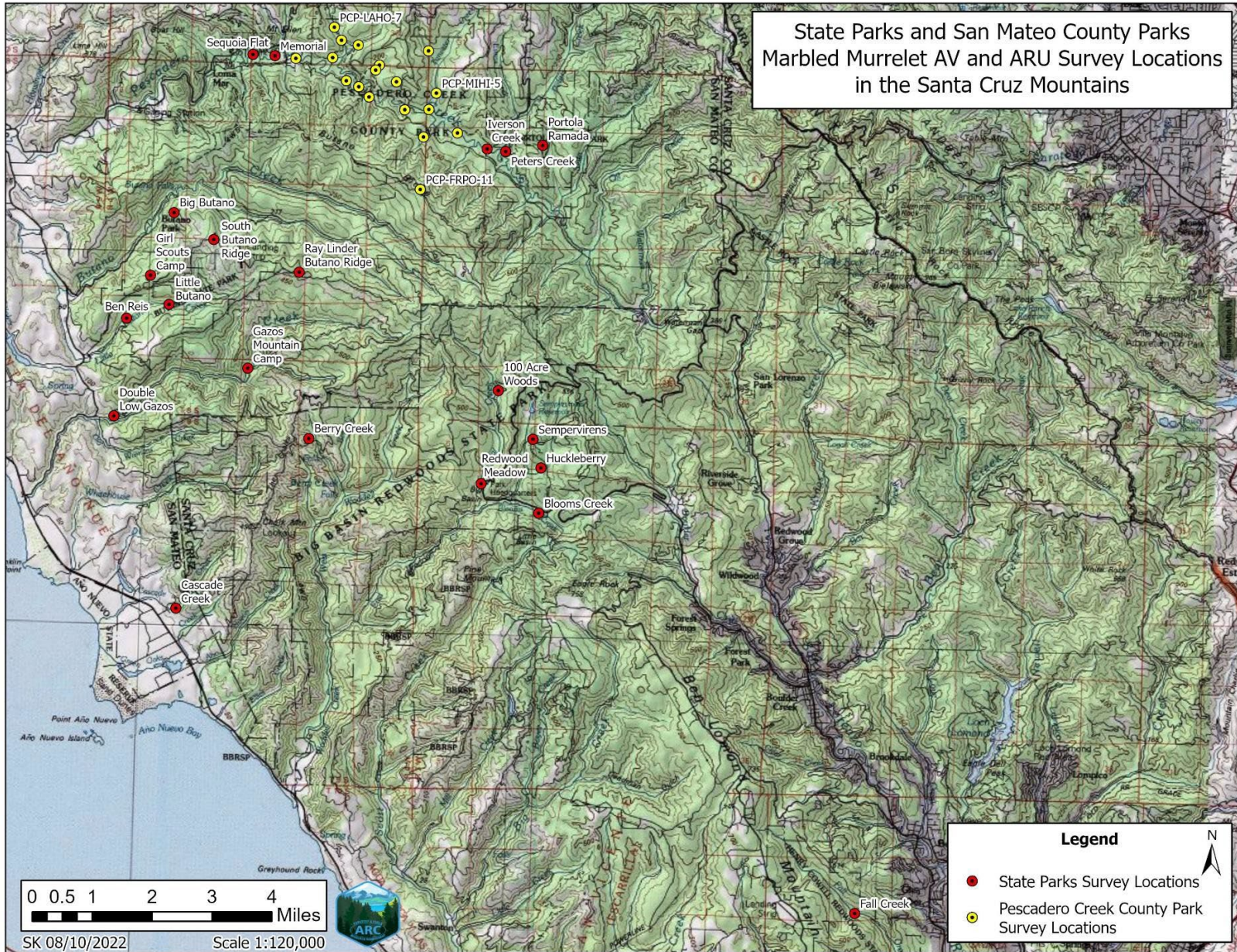
ARU Data Summary

In summary, the results from 2010, 2017, 2018, and 2021 in State Parks, 2021 in San Mateo County Parks, and Hamey Woods 2020 in Peters Creek show a notable drop in activity at the end of July. With the exception of Gazos Mountain Camp, which had quite a bit of calling activity through mid- August in 2018 but appear to notably drop in 2020 and 2021. It should be recognized 2019 and 2020 showed inconsistencies due to software related issues for State Park ARU's. There were periods of higher call detection during the late July-August period of 2019 at Gazos Mountain Camp as well. From this ARU data, Matthew McCowen, principal ARU researcher says "that vocalizations typically peak between mid-June and August 1, but that detections can continue into mid-late August at high activity sites." With this in mind, it would be appropriate to restrict noise producing management actions around these high activity sites like Gazos Mountain Camp into August during the breeding season.

The culmination of data from AV, Radar, and ARU among the different entities provided here are likely the most inclusive data available for inland movements of marbled murrelet for the Santa Cruz Mountains. They represent the best available data set and indicate that most locations would avoid impacts to marbled murrelet with high decibel activities starting after August 5th, except for marbled murrelet important areas within Portola State Park and Pescadero Creek County Park where activities could begin on August 15th and marbled murrelet important areas within Gazos Mountain Camp where activities could begin on September 1st.

ARU information will likely be the best monitoring tool in August going forward given the prohibitive cost for AV monitoring during this low use time period. Parks will continue to use ARUs to monitor through August at many different locations throughout the range in areas of interest.

AV and ARU Survey Stations Location Map



Grounded Fledglings and Chicks

There have been 63 documented instances of nesting in the Santa Cruz Mountains, 21 nests, 6 eggshells, 2 chicks, and 35 grounded fledglings (LMP, 2017). Although findings are incidental it can be useful to consider when murrelet fledglings and chicks have been found on the forest floor. Below is a chart (Figure 1) of the nesting chronology of marbled murrelets based on 30 grounded fledglings in the Santa Cruz Mountains. For grounded fledglings, the date of discovery is assumed to be within one day of the fledge date, and the egg-laying date is assumed to be 60 days prior² (LMP, 2017). Of these 35 grounded fledglings 37% have been found after August 5th.

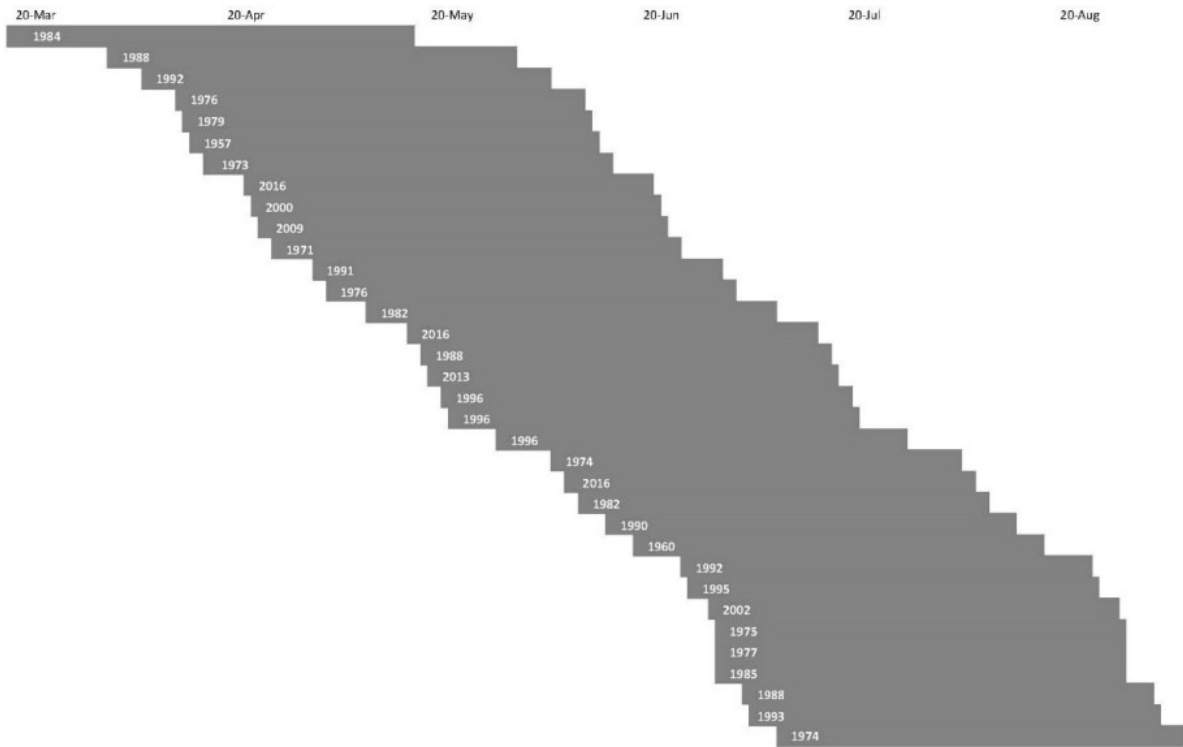
This section is quoted from the LMP:

“However it is unlikely that a pair would wait until July to lay their first egg and initiate nesting. It is more likely that murrelets start nesting in late March or April and that the late fledgling birds are the result of a replacement egg laid after the failure of the first nest.

Replacement laying, i.e. laying of a new egg after the first fails, is common in other parts of the murrelets range (McFarlane Tranquililla et al. 2003) and is believed to be common in the Santa Cruz Mountains as well (Peery and Henry 2010) However, research by Hébert et al (2003) found it to be less common in northern California. It is also important to recognize that late fledglings are probably the product of replacement eggs (they hatched from an egg that was laid after an earlier nesting attempt failed; Hébert et al. 2003). In many other Alcids, the success of replacement eggs is poor (e.g. common murre, Golightly and Schneider 2016). Data from Hébert et al. (2003) indicated that survival to fledging was low for re-nesting attempts by marbled murrelets (overall 89% of re-nest attempts failed and 92% of re-nest attempts failed in the best reproductive year). Most of these nests failed in the incubation stage. The likelihood of failure in replacement eggs illustrates the problem of extrapolation of a fledge date for determination of the outer extent of the nesting period. Thus, for purposes of avoiding noise impacts to nesting, September 1 could be appropriate as the end of the nesting period in California.”

² The breeding season is defined by the earliest known nesting and latest known fledging dates. Data shows that nesting begins as early as March 18 and the last fledging occurs in mid-September. This nesting season is similar to that found elsewhere in the southern half of the murrelet’s range (McShane et al. 2004) and largely falls within the period given in the Pacific Seabird Group forest survey protocol of March 24 to September 15 (Evans Mack 2003).

Figure 1. Nesting Chronology of Marbled Murrelets by Grounded Fledglings (LMP, 2017)



Noise

When considering mammals or birds that are threatened or endangered, understanding and avoiding disturbing events is important. Marbled murrelets nest high in old growth trees where there are few ground predators and visual cues of a predator approach are limited; consequently, sound is likely the major stimulus causing disturbance at the nest (with the possible exception of corvids which could produce both an auditory and visual stimulus as they approached a nest).

Noise has been described as undesirable sound (Crocker 1998) and an ongoing terrestrial threat to marbled murrelets (McShane et al. 2004). Effective management of this species requires consideration of noise as a source of disturbance during nesting. Further, noise can be considered to be a component of the animal's habitat because noise can compromise communication and reproduction, as well as influence the potential for predation. Noise can cause a decrease in the assessment of habitat quality, especially if noise is persistent in that environment.

Timing of Noise Restrictions

Marbled murrelets are very difficult to observe and species-specific studies of noise impact have been limited, and sometimes impossible to conduct. Clear causal relationships between noise and potential impact or injury (e.g. reduced reproductive success, increased risk of predation) have not been established. Clearly, flushing should be considered harmful. Despite the absence of causal studies on marbled murrelets, events that cause flushing cannot be considered as the only harmful noises. Formulation of protective strategies for marbled murrelets requires that assessments consider all information about murrelet life history, as well as the responses to disturbance identified in studies of other seabirds.

The following is quoted from the LMP (2017).

“The risk of noise impact can be reduced by timing loud noise-producing events near murrelet nests to times when the birds are least vulnerable. This would be especially important during incubation, but also the time of day during chick feeding when fish deliveries might potentially be disrupted. Because the USFWS (2006) was considering spotted owl habitat in the same noise analyses, their considerations for restrictions on noise generation did not fully distinguish all nuances specific to marbled murrelet biology that differ from other species. Specifically, the timing of how murrelets use the forest is important to providing flexibility to the imposition of restrictions. However, for murrelets the potential impacts from noise generation vary with time of day, phase of the nesting season, and time of year and may not require the same types of restrictions at all times. Thus, it may not be reasonable to apply a single set of restrictions or noise mitigations across all times of day and throughout the nesting season. The following section discusses potential alterations of the present noise restrictions that could be considered to ensure protection to murrelets while also providing regulatory flexibility.”

Marbled Murrelet Response to Noise

“Marbled murrelets and their nests are difficult to observe because the nests are so high in the trees and the adults fly in and out for incubation exchanges only during the very early morning hours. To overcome this difficulty, Hébert and Golightly (2006) used radio telemetry and video techniques in RNSP to systematically assess the behavioral and reproductive response of marbled murrelets to noise associated with human trail-use and distances of nests from recreational trails in the park. Here, visual and auditory stimuli could not be separated, but presumably marbled murrelet responses were most likely associated with noise.”

“Video was used to record murrelet behavior coincident with human activity on the trails. No murrelets were observed to flush when trails were used by various-sized groups of people. In the same investigation, Hébert and Golightly (2006) also experimentally examined changes in behavior associated with noise generated from operating chainsaws; they examined both the behavioral responses of incubating adults, as well as chicks at the nest. It was apparent that individual murrelets recognized the chainsaw noise as an alteration in their environment. At 65-75 dB measured 25m (82 feet) distant from the source and at the base of the tree, approximately 40-50 m (131-164 feet) from the nest, the noise was 20-35 dB above background in that forest. Murrelets rested less during the time that the saw was running and displayed an increase in behaviors that could be interpreted as vigilance. However, these behavior changes were subtle and appeared to preserve the cryptic manner in which murrelets behave at the nest; see below. Moreover, no murrelets flushed and all sat quiescent in the nest during their chain saw exposure events. Neither chronic nor impulsive noise was tested in this study.”

Daily Variation in Noise Vulnerability

Noise has significant potential to negatively impact murrelet behavior and reproduction when murrelets fly inland to visit nests, make exchanges with their mate during incubation, or feed chicks at nests. During the nesting season, the period from approximately 1 hour before sunrise until 1.5 hours after sunrise should be considered a particularly vulnerable time and moderately loud and/or high-intensity impulsive noise production from anthropogenic sources should be restricted.

Additionally, in California murrelets may fly inland in the late afternoon (1 hour before sunset; see Hébert and Golightly 2006). The late afternoon/evening flights are associated with feeding chicks at the nest (empirically observed evening flights were not detected prior to May 22 but can continue until the end of nesting) and there is a similar need to avoid loud or impulsive noise during this period.

During all daylight hours throughout the nesting season, noises that could cause flushing should be avoided (especially very loud or impulsive noises). Besides very loud or impulsive noises, the difference between the ambient background level and the noise generated by a project is another consideration for the potential to cause harm. For noise generated from a project during daylight hours, Hébert and Golightly (2006) found that noise about 30-35 dB above background did not produce flushing. Consequently, short periods of noise (eg.: such as using a chainsaw or power blower) that is less than 30-35 dB above background (measured from the nest or potential nest tree) would likely have minimal impact and thus be tolerable during most daylight hours (outside the 1.5 hours after sunrise and the hour before sunset). Likewise, noise that is consistent in amplitude, duration, and frequency with the existing sources of noise at the site, even if somewhat louder than usual background, would be unlikely in causing stress to the nest. Conversely, noise that is suddenly injected into the environment may be more likely to cause a response that may be deleterious.

General Sound Assessment and Action Generated Noise Analysis within Huddart County Park, Pescadero Creek County Park, and Big Basin Redwoods State Park

The following excerpts were sourced from a general operational sound assessment conducted by Auten Resource Consulting at various county and state parks properties undergoing restorative vegetation management projects in the Santa Cruz Mountains. Various equipment typically utilized for landscape level, forest health fuels reduction treatments within the region was assessed for sound output levels at various buffer distances.

“A general sound level field assessment was conducted over three days in June of 2022 by Auten Resource Consulting at various locations within San Mateo County Parks and California State Parks properties across the Santa Cruz Mountains. The intent of this exercise was to develop a broad dataset containing decibel (dB) reading recorded within different settings and environments for the purpose of observing how those readings compare with corresponding sound levels described in available literature (Estimating Auditory Effects of Auditory and Visual Disturbance of Northern Spotted Owl and Marbled Murrelet in Northwestern California, 2006, 2020 USFWS).”

Operational Noise

Below, averaged results of the general assessment are compiled based on the type of equipment as well as the specific ranges at which the sound source was measured. The dB values listed are averages sourced from larger datasets for listed each scenario.

“Table 9 from the general sound assessment provides a summary of noise levels recorded during active equipment operations. Specific equipment types were assessed for sound at variable ranges to develop a reference scale for machinery that may be used during similar

vegetation treatment projects. These values are approximate and are averages taken from the broader datasets for each setting/equipment type.

Operations Assessment		
Equipment	Distance from Equipment (ft)	dB Average
CAT 299D Skid steer mower	165	59.5
	300	52.1
	500	49.0
Link-Belt 145 X4 excavator	120	65.8
	165	59.6
	300	52.0
	500	45.3
Stihl MS 261 chainsaw	165	62.6
	250	57.9
	300	55.9
	500	50.5
John Deere 135G excavator	50	57.7
	100	55.1
	165	46.2
	300	44.2
John Deere 650K XLT Dozer	50	68.7
	165	56.4
Handwork/Felling	50	83.7
	165	73.3
	300	62.7
	500	54.6

Table 9 Operations Assessment Sound Level Summary Results by Equipment Type

Predominantly, operational sound level readings did not vary substantially within each dataset, producing a generally representative average for each equipment type. Figure 8 provides a graph of recorded averages developed from actual readings as well as projected averages along an approximate trendline for each dataset. The plotted points on Figure 8 represent the dB averages developed from physical data while the associated trendline for each equipment type provides general, projected averages at measurement distances where actual data was not available.

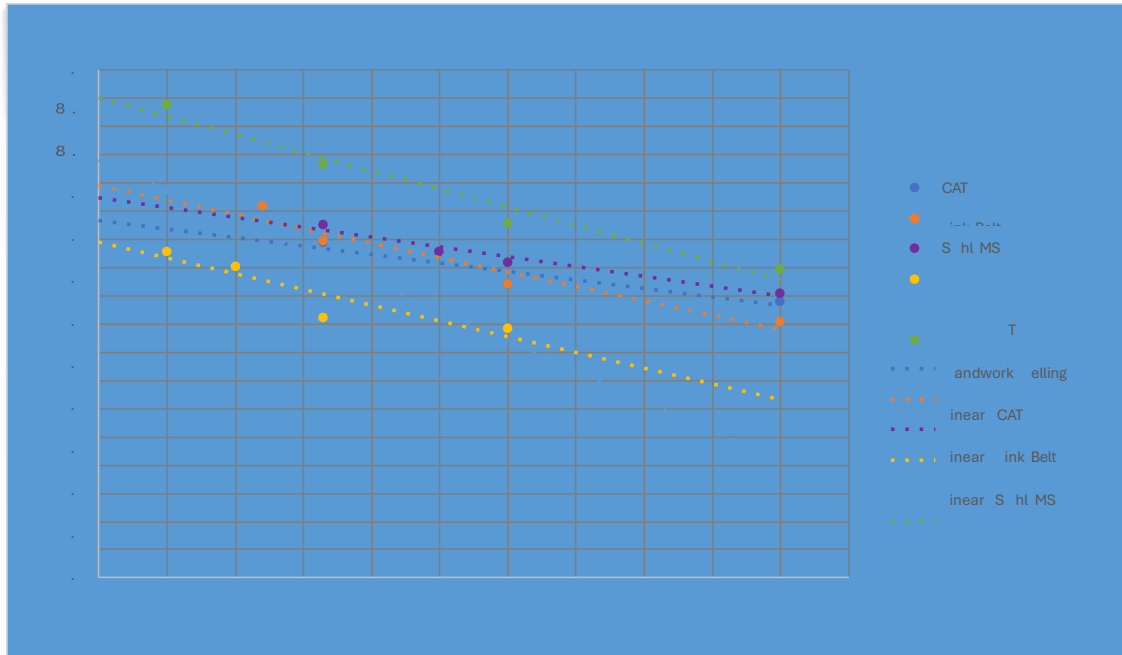


Figure 8 Equipment Sound Level Averages and Projected Averages by Source Type

The maximum recorded sound levels captured during the operational noise assessment were primarily the product of handwork and tree felling along Opal Creek in Big Basin Redwoods State Park. Crews utilized three (3) active chainsaws and hand equipment to fell trees near North Escape Road where noise levels were recorded at various ranges. Generally, this activity produced noise levels approximately 20-35 dB above the other measured equipment, on average.

The lowest general sound levels captured during the operational noise assessment were sourced from the John Deere 135G excavator (JD 135G) equipped with a standard bucket. This machine was primarily conducting earthmoving activities and digging during a culvert replacement project. This project also utilized a John Deere 650K XLT dozer (JD 650K) to mobilize and transport fill material. At the time of the assessment, only 50-foot and 165-foot measurements were taken for the JD 650K due to opportunity constraints. Sound measurements for this equipment type were recorded from the road with very minimal to no obstruction between the meter and the machinery.

The Link-Belt 145 X4 excavator, which is similar in operating weight and net power output to the JD 135G, produced moderate noise levels when compared to the other types of measured equipment. The Link-Belt was fitted with a masticating/brush mower head which was used for general vegetation treatment and small to mid-size tree removal, generally trees primarily along roads and trails. Generally, this unit when equipped with a masticating head produces noise approximately 10 dB above what the JD 135G produces, depending on the factors and use dynamics. A Caterpillar 299D skid steer dozer was onsite with the Link-Belt 145 and was fitted with a drum-style brush mower head primarily for understory fuels reduction work off of roads. Additional uses for this equipment type are providing access into treatment units,

reducing woody debris piles, and higher precision treatment mobility around sensitive resources or tightly spaced areas.

The chart in Figure 9 provides an approximate scalar reference for sound sources and their associated noise levels on active project sites within the region. Exact values may be subject to factors not included or evaluated in this general study. For the purpose of this assessment, average dB levels and projections based on those averages were used to develop the results described above.

The results of this sound analysis indicate that the mechanized equipment described in this report, which is typical for landscape scale vegetation treatment projects in the Santa Cruz Mountains (forest restoration treatments utilizing handwork crews and mastication equipment), operates at Low – Moderate sound levels. Handwork and felling conducted by a fully outfitted crew produced the only sound levels above 70 dB when measured at 50 feet. Additionally, it is expected that sound levels will decrease at greater distances from the source. Mechanized equipment noise measured at 165 feet produced sound levels between 45 – 65 dB, while the same equipment assessed at 300 feet produced sound levels between 43 – 57 dB.”

Information and data gathered from this assessment provides a general reference for sound outputs produced by equipment types likely used to accomplish forest restoration and resiliency treatments in proximity to known or suitable marbled murrelet habitat. Variabilities in equipment type, decibel levels, and overall project generated noise are determined on a site-specific basis for these project types.

Summary

The old growth forests of the Santa Cruz Mountains were protected because people loved and wanted to preserve their charismatic large trees. At that time, no one knew that they were also protecting the nesting place of an obscure seabird. The threat they focused on was old growth logging, today, the threat to these trees and murrelets is extreme fire behavior and other effects of climate change, similar to what occurred during the 2020 CZU Lightning Complex Fire. Without proactive forest restoration treatments, extreme fire behavior and climate change will continue to be a threat to the survival of both the old trees and the seabird. This habitat loss from future fires is a possibility we cannot ignore, and inaction is not an option. It's not a matter of if murrelet habitat will burn but *when* and *how intensely*?

There is still much unknown about exactly how and when marbled murrelets use their habitat. However, the survey results summarized point to a significant decrease in forest habitat use in early to mid-August. The localized marbled murrelet behavioral data outlined in this report are supportive of wider operational windows; April 1 – August 5 are dates that better reflect known time of use based on AV and ARU surveys, except for the marbled murrelet important areas within Portola State Park and Pescadero Creek County Park or Gazos Mountain Camp where September 1st is appropriate. Based on this timing of use, timing of forest management activities can be adjusted to occur based on their proximity to existing old growth habitat. In addition, the data presented in the Noise section, based on the USFWS 2006, 2020 auditory effects document, indicate that certain activities and equipment can likely operate closer than initially assumed.

Recommendations³

The following recommended Best Management Practices consider the recorded localized marbled murrelet behaviors analyzed in this report, the scale and impact of the CZU Fire to marbled murrelet habitat, and the urgency to minimize the threat of further loss of murrelet habitat as a result of extreme wildfires and climate change through proactive forest management:

1. **Operational Window:** High decibel work in proximity or within areas identified as murrelet habitat, occupied or important habitat areas in the Santa Cruz Mountains may begin on August 5th and continue to March 24th, except for the following conditions:
 - a. At sites that are known as prime unburned (pre-CZU Fire) habitat for marbled murrelets, such as marbled murrelet important areas within Pescadero Creek County Park and Portola State Park, or marbled murrelet important areas within Gazos Mountain Camp in Butano State Park, avoid working until August 15th and September 1st, respectively, unless new AV or ARU data suggests different dates when murrelets nest in these areas.
 - b. High decibel work may occur year around in areas of the CZU Fire that burned at moderate-high and high severities (<https://sig-gis.com/czu-lightning-complex-map/>) within the CZU Fire where murrelet habitat was significantly compromised or destroyed.
2. **Working Hours:** Do not work during the dawn and dusk period in areas identified as murrelet habitat, occupied or important habitat areas that experienced low or moderate burn severity. Work from 1.5 hours after sunrise to 1 hour before sunset between March 24th – August 5th, or March 24th – August 15th in marbled murrelet important areas within Pescadero Creek County Park and Portola Redwoods State Park, and March 24th – September 1st within marbled murrelet important areas in Gazos Mountain Camp.
3. **Noise Restrictions:** Noise restrictions should be in place that address any chronic noise production or new noise that is 30-35 dB above background. These noises should be carefully evaluated, and minimized to the extent possible.
 - a. **Habitat Buffer:** Sound analysis work and data indicates that in areas of low to moderate fire severity, where areas identified as murrelet habitat, occupied or important habitat areas in the Santa Cruz Mountains still exists, buffers can be reduced to 330 feet to allow larger handwork crews and mastication equipment to conduct forest restoration and resiliency treatments greater than normal routine maintenance actions and park use, from March 24th to August 5th, or March 24th – August 15th within marbled murrelet important areas in Pescadero Creek County Park and Portola State Park and March 24th – September 1st within marbled murrelet important areas in Gazos Mountain Camp.

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- ³ Recommendations are locally applicable to Santa Cruz District State Parks and San Mateo County Park lands including Big Basin Redwoods State Park, Portola Redwoods State Park, Butano State Park, Pescadero Creek County Park, Memorial County Park and Sam McDonald County Park.
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4. **Strategic Planning:** Time forestry work to occur as far from murrelet habitat in the July timeframe and work towards murrelet habitat.
5. **Continued Monitoring:** AV and ARU monitoring will continue in areas where these recommendations are being followed to monitor changes in murrelet behavior supporting adaptive management strategies as needed to protect the species. Survey data will be shared with Agencies as it is available post season to adjust work windows based on new information.

Lifespan

This document is intended to serve as a guidance document for the next 10 years and if still of use will be updated in 2033.

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