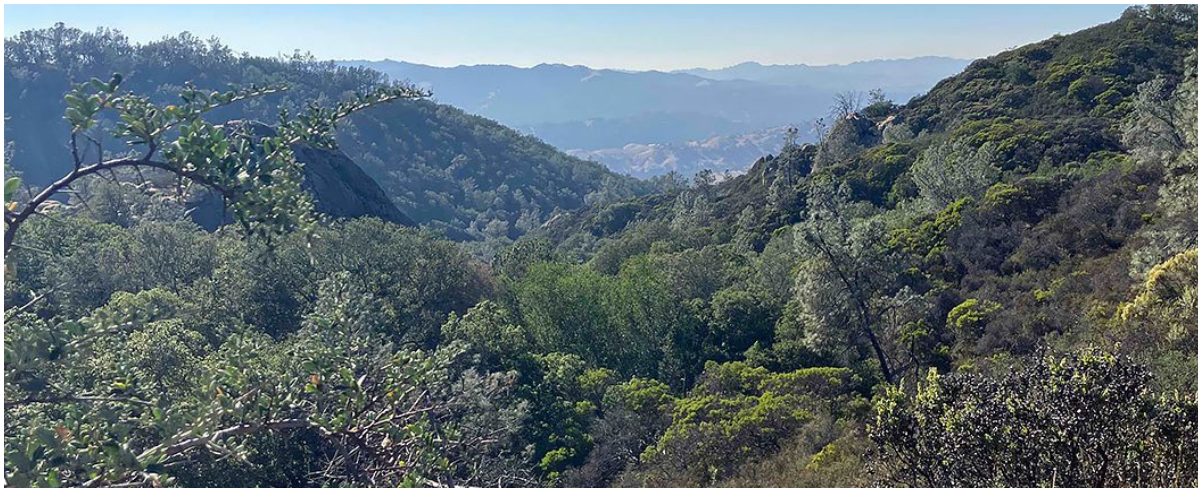
PROJECT-SPECIFIC ANALYSIS AND ADDENDUM TO THE CalVTP PROGRAM EIR

Mount Diablo State Park Vegetation Treatment Project



Prepared for:

California State Parks
Diablo Range District - Northern Region

October 2023

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Diablo Range District - Northern Region
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TABLE OF CONTENTS

Attachments

Figures

Tables

LIST OF ABBREVIATIONS

BAAQMD	Bay Area Air Quality Management District
CAAQS	California Ambient Air Quality Standard
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
CalVTP	California Vegetation Treatment Program
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSP	California State Parks
CWHR	California Wildlife Habitat Relationships
DTSC	California Department of Pesticide Regulation
ECCCHCP	East Contra Costa Natural Communities Conservation Plan/Habitat Conservation Plan
ELZ	equipment limitation zones
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FRAP	Fire and Resource Assessment Program
GHG	greenhouse gas
IPaC	Information for Planning and Consultation
ITP	incidental take permit
MMRP	mitigation monitoring and reporting program
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NOA	naturally occurring asbestos
NO_X	nitrous oxide
NWIC	Northwest Information Center
PG&E	Pacific Gas & Electric Company

PM	particulate matter
Program EIR	Program Environmental Impact Report
PSA	Project-Specific Analysis
ROG	reactive organic gas
RWQCB	regional water quality control board
SP	State Park
SPR	standard project requirement
SR	State Route
SRA	State Responsibility Area
USFWS	US Fish and Wildlife Service
USGS	U.S. Geological Survey
VTP	Vegetation Treatment Project
WLPZ	Watercourse and Lake Protection Zone

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1 INTRODUCTION

1.1 PROJECT OVERVIEW AND DOCUMENT PURPOSE

The California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (Program EIR) was certified by the Board of Forestry and Fire Protection (Board of Forestry) in December 2019. The Program EIR evaluates the potential environmental effects of implementing qualifying vegetation treatments to reduce the risk of wildfire throughout the State Responsibility Area (SRA) in California. It was designed for use by many state, special district, and local agencies to accelerate vegetation treatment project approvals by finding them to be within the scope of the Program EIR. To support implementation of the CalVTP and facilitate use of the Program EIR for qualifying treatments by many agencies, the Board of Forestry initiated a technical assistance program.

This Project-Specific Analysis (PSA) and Addendum to the CalVTP Program EIR (PSA/Addendum) for the California State Parks (CSP) Mount Diablo State Park Vegetation Treatment Project (project) is being prepared under the Board of Forestry and Fire Protection's (Board) technical assistance program to provide both California Environmental Quality Act (CEQA) compliance for CSP to approve and implement the project, as well as serve as an example PSA/Addendum for other agencies seeking to use the CalVTP Program EIR to accelerate approval of their own vegetation treatment projects.

1.1.1 Proposed Project

CSP proposes to implement vegetation treatments on up to 7,510 acres in Mount Diablo State Park (SP) in Contra Costa County (Figure 1-1). The proposed treatment types (i.e., fuel breaks, ecological restoration) and the treatment activities (i.e., manual treatments, mechanical treatments, prescribed burning, herbicide application) are consistent with those covered in the CalVTP Program EIR. Future maintenance treatments are included in the project and would involve the same vegetation treatment types and activities used in the initial treatments.

1.1.2 Agency Roles

For the purposes of the CalVTP Program EIR and this PSA/Addendum, a project proponent is a public agency that provides funding for vegetation treatment or has land ownership, land management, or other regulatory responsibility in the treatable landscape and is seeking to fund, authorize, and/or implement vegetation treatments consistent with the CalVTP. This document is being prepared for CSP to comply with CEQA for its approval and implementation of vegetation treatments that require a discretionary action by a state or local agency. CSP is the CEQA lead agency.

1.1.3 Purpose of This PSA/Addendum

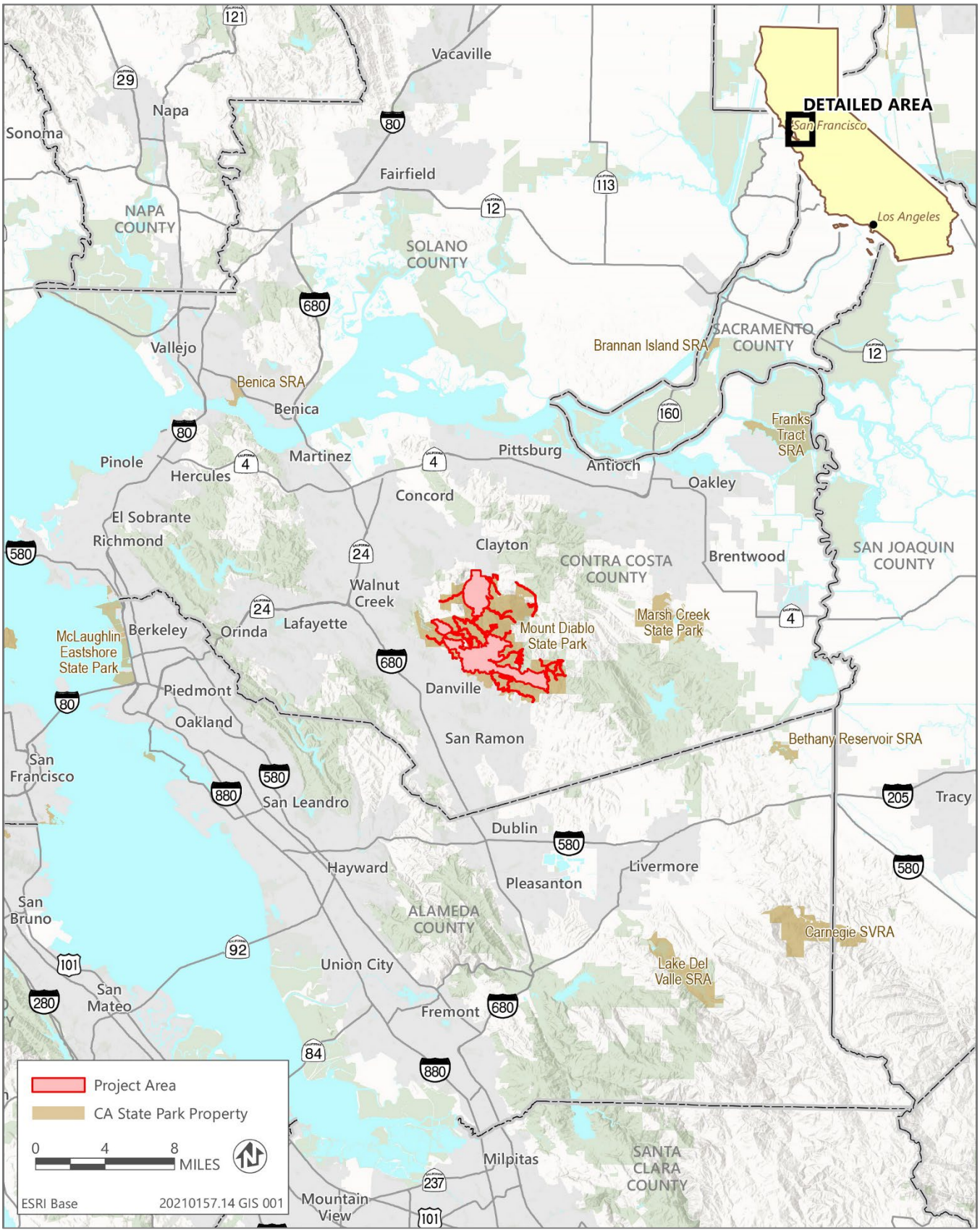
This document serves as a PSA/Addendum to evaluate if the proposed treatments are within the scope of the CalVTP Program EIR. As described above, the treatment types and treatment activities are consistent with the CalVTP. Among the other criteria for determining whether a treatment project is within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

Portions of the project area extend outside of the treatable landscape described in the CalVTP Program EIR. In total, these areas outside the treatable landscape encompass approximately 861 acres of the 7,510-acre project area; they are dispersed in small sections of the project area (refer to Figure 2-1). The scattered array of acres outside of the CalVTP treatable landscape is due to the method by which the CalVTP treatable landscape was digitally developed and the resultant degree of mapping resolution. Using desktop applications to apply buffers around geographic and

topographic features and demarcate jurisdictional boundaries (i.e., SRA and Local Responsibility Area or LRA), the method resulted in some treatable landscape areas that are shown on maps to be disjointed and scattered and some that are inheld LRA areas surrounded by SRA. If the areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or at least substantially similar, landscape conditions as the adjacent areas within the treatable landscape, the environmental analysis in the Program EIR would be applicable.

An Addendum to an EIR is appropriate when a previously certified EIR has been prepared and some changes or revisions to the project are proposed, or the circumstances surrounding the project have changed, but none of the changes or revisions would result in new or substantially more severe significant environmental impacts, consistent with CEQA Section 21166 and CEQA Guidelines Sections 15162, 15163, 15164, and 15168. In this case, there are no changed circumstances, but the proposed revision or change in the project, compared to the Program EIR, is the inclusion of areas outside of the CalVTP treatable landscape. The PSA checklist (refer to Section 4, "Project-Specific Analysis") includes the criteria to support an Addendum to the CalVTP Program EIR for the inclusion of proposed project area outside the CalVTP treatable landscape. The checklist evaluates each resource in terms of whether the later treatment project, including the "changed condition" of additional geographic area, would result in significant impacts that would be substantially more severe than those covered in the Program EIR and/or any new environmental impacts that were not covered in the Program EIR.

This document serves as both a PSA and an Addendum to the CalVTP Program EIR for CSP review and analysis under CEQA regarding CSP's proposed treatments within and outside the treatable landscape covered by the Program EIR. It will provide environmental information to CSP in its consideration of approval of funding allocations and implementation of the work by CSP or its contractor(s). The project-specific mitigation monitoring and reporting program (MMRP), which identifies the CalVTP standard project requirements (SPRs) and mitigation measures applicable to the proposed project, is presented in the MMRP for the Mount Diablo SP Vegetation Treatment Project (VTP), attached as Attachment A. The SPRs identified in the MMRP have been incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation.



Sources: Data received from EDRP in 2022.

Figure 1-1 Regional Location

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2 TREATMENT DESCRIPTION

Located in Contra Costa County, Mount Diablo SP is a 20,124-acre complex with an elevational range of 381 to 3,849 feet. Vegetation treatments are proposed on approximately 7,510 acres of the park. Except to the southeast, low valleys surround the park with residential/business development in the unincorporated communities of Alamo, Blackhawk, and Diablo, and the cities of Clayton, Concord, Danville, and Walnut Creek. To the east are the agricultural lands of the San Joaquin Valley. Primary access to the park is from State Route (SR) 24 from the west, SR 4 from the west and east, and Interstate (I-) 680 from the north and south. CSP owns most of the project area, and a small portion in the southeast is owned by the non-governmental organization, Save Mount Diablo. Save Mount Diablo is in the process of donating this land to CSP, and the area is collectively part of the Mount Diablo SP. Treatments are proposed to remove fuels along existing fire roads, restore native grasslands, and promote forest health and resiliency in areas affected by pests or pathogens. The objectives of the project are to: 1) create and maintain fuel breaks along roads and within the WUI, 2) manage forests and chaparral communities affected by pests or pathogens for wildfire risk and forest health, and 3) manage annual grasslands for control of invasive plant species and shrub encroachment.

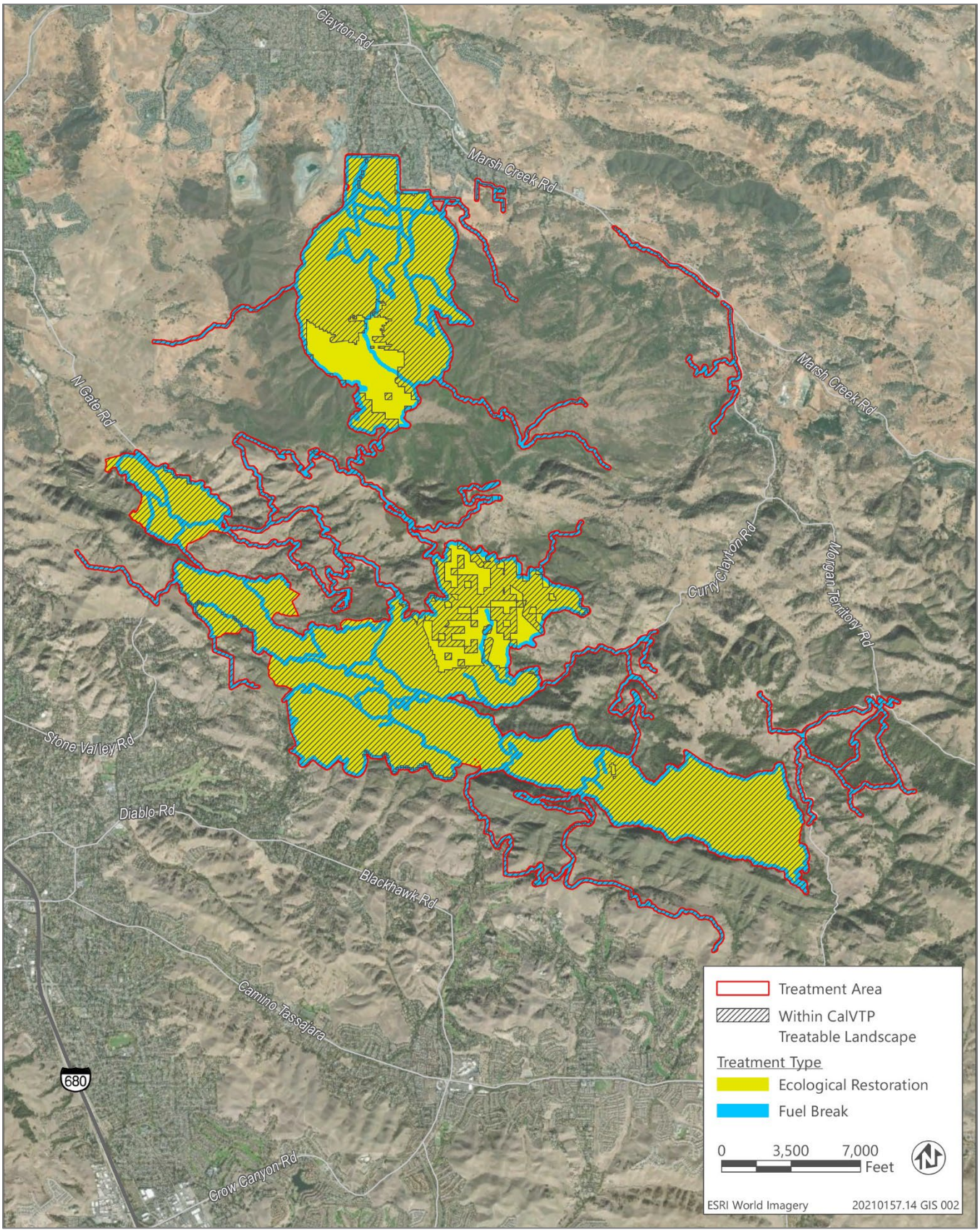
2.1 PROPOSED TREATMENTS

The proposed project involves two treatment types: fuel breaks and ecological restoration. The vegetation treatment activities proposed to implement each of these treatment types are manual treatments, mechanical treatments, prescribed burning, and herbicide application. Individual distinct portions of the proposed project area are referred to as "treatment areas" in this document, while the entire collective proposed project is referred to as the "project area."

Implementation of initial treatments would require between 1 and 20 crew members depending on the treatment, along with their associated vehicles to travel to and from the treatment areas. Up to four crews could be conducting treatments simultaneously throughout the project area. Treatment activities would occur during daytime hours on weekdays, typically between approximately 7:30 a.m. and 5:30 p.m., except for prescribed (pile or broadcast) burning, which would occur continuously during the period of implementation.

Treatments would be scheduled to begin in fall of 2023 depending on funding, equipment/contractor availability, weather conditions, limited operating periods for sensitive species, and other restrictions. Mechanical treatments could occur year-round, except if restrictions occur due to fire danger. Herbicide application could occur year-round, except during rain events. Manual treatments could also occur year-round. Prescribed burning would occur in fall, winter, or spring.

The proposed CalVTP treatments are shown in Figure 2-1 and are summarized in Table 2-1.



Source: Data received from CSP in 2022; adapted by Ascent in 2022.

Figure 2-1 Project Area

Table 2-1 Proposed CalVTP Treatments

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activity	Treatment size (Acres) Within Treatable Landscape[1]	Equipment Used for Treatments	Timing of CalVTP Treatments
Fuel Break	Shaded fuel breaks along fire roads and select trails	Manual (cutting), mechanical (biomass chipping, mowing, mastication), herbicide (stump application), and prescribed burning (air curtain burning, pile burning)	~1,946[2]	Chainsaws, brush cutters, hand tools, tow chipper, air curtain burner, mower, masticator, fire engines, water tenders	Year-round (depending on funding, equipment/contract or availability, weather conditions, limited operating periods for sensitive species, and other restrictions)
Fuel Break	Perimeter non-shaded and shaded fuel breaks along the park boundary	Manual (cutting), mechanical (biomass chipping, mowing, mastication, grading, discing), and herbicide (stump application)	~607[2]	Chainsaws, hand tools, brush cutters, tow chipper, grader/bulldozer, tractor/skidder, mower, masticator	Year-round (depending on funding, equipment/contract or availability, weather conditions, limited operating periods for sensitive species, and other restrictions)
Ecological Restoration	Native grassland restoration	Manual (cutting), mechanical (mowing), prescribed burning (broadcast burning) and herbicide (stump application, backpack sprayer)	2,185	Chainsaws, hand tools, backpack sprayers, fire engines, water tenders, grader/bulldozers	During the burn window (typically fall - spring) when environmental conditions are conducive
Ecological Restoration	Coulter pine forest health and resiliency	Manual (cutting), mechanical (biomass chipping, mowing, mastication, skidding), and prescribed burning (air curtain burning, pile burning, broadcast burning)	1,494	Chainsaws, hand tools, tow chipper, track chipper, air curtain burner, masticator, tractor/skidder, mower, grader/bulldozers, fire engines, water tenders, helitorch	Year-round (depending on funding, equipment/contract or availability, weather conditions, limited operating periods for sensitive species, and other restrictions)
Ecological Restoration	Knobcone pine and manzanita forest health and resiliency	Manual (cutting), mechanical (biomass chipping, mowing, mastication, skidding), and prescribed burning (air curtain burning, pile burning, broadcast burning)	1,544	Chainsaws, hand tools, tow chipper, track chipper, air curtain burner, masticator, tractor/skidder, mower, grader/bulldozers, fire engines, water tenders, helitorch	Year-round (depending on funding, equipment/contract or availability, weather conditions, limited operating periods for sensitive species, and other restrictions)

[1] Acreages sum is greater than the total treatment acreage because acreages are approximate, and more than one treatment may occur in a given area.

[2] Estimate based on 100-foot buffer along fire roads. Actual width of shaded fuel break dependent on vegetation type not to exceed 100-feet.

2.1.1 Fuel Breaks

In strategic locations, fuel breaks create zones of vegetation removal that reduce wildfire risk and support fire suppression by providing responders with a staging area or access to a remote landscape for fire control actions. They can also provide safe emergency egress during wildfires and provide important control lines for prescribed burning. Shaded fuel breaks would be created such that vegetation is thinned but not cleared to reduce fire potential. In forested areas, larger trees would remain, and the tree canopy would be thinned to reduce the potential for a crown fire to move through the canopy. Surface fuels would also be removed to increase the height to the live crown of the remaining trees. The shade of the retained canopy reduces the potential for rapid regrowth of shrubs and sprouting hardwoods and may reduce rill and gully erosion. Fuel breaks would be established and maintained around select routes along the perimeter of Mount Diablo SP and areas along the WUI. Shaded fuel breaks would be established and maintained along fire roads and select trails.

SHADED FUEL BREAKS

Treatment Activities

The proposed vegetation treatment activities for shaded fuel breaks would be manual treatments, mechanical treatments, prescribed burning, and herbicide application. Mechanical treatments would use mowers, chippers, and/or masticators. Manual treatments would use hand tools and hand-operated power tools. Biomass would be disposed of through chipping, lopping and scattering, pile burning, masticating, and burning via a trailer mounted air curtain burner (i.e., BurnBoss T-24). The air curtain burner would be placed in cleared areas and transported on existing roads. Herbicide would be painted on stumps of treated shrubs and trees to prevent regrowth. No spray application of herbicides is proposed. These activities are described in more detail below.

Manual and Mechanical Treatments

Shaded fuel breaks would be established throughout Mount Diablo SP adjacent to existing fire roads and main roads. To create shaded fuel breaks, labor crews consisting of approximately 5 to 20 members would remove shrubs and understory trees to reduce surface and ladder fuels. Fuel break widths would be determined by the vegetation community and structure along fire roads, following guidelines in the *Mount Diablo SP Wildfire Management Plan* (CSP 2003).

In chaparral/shrublands, fuel breaks would have variable widths no greater than 100 feet from the center line, and not less than three times the average height of the shrubs. Within the fuel breaks, 30 to 40 percent of the shrub canopy would be left intact as small islands or clumps. Dead, dying, and diseased shrubs, and live shrubs overlapping the dripline of a retained tree would be removed.

In woodlands/forests, fuel breaks would be of variable width not less than three times the height of the trees. Within the fuel break, ladder fuels would be reduced to less than 2 feet in height or removed. Dead, dying, and diseased trees and live trees with poor structure or structural damage would be felled. If live trees have overlapping driplines, the least desirable tree would be felled. Dead and downed material 0.5-inch to 6 inches in diameter would be cleared. In oak woodlands, treatments would remove encroaching conifers and bay trees to promote oak tree health in native oak woodlands.

All treatment would be implemented using hand tools and hand-operated power tools including chainsaws, hand saws, and/or brush cutters. Mowers may also be used for clearing overgrown vegetation like grasses, mustards, and thistles within 10 feet of either side of roadways to improve access. Approximately 50 percent of biomass generated by treatment activities would be disposed of by chipping onsite or chipping and hauling material offsite to a landfill. Chips would be spread within treatment areas at a depth no greater than 2 inches.

Prescribed Burning

Approximately 50 percent of biomass generated from treatment activities would be manually piled throughout the project area using hand crews and burned in piles or in an air curtain burner in compliance with Bay Area Air Quality Management District (BAAQMD) standards. The air curtain burner would be used as an alternative to pile burning in

areas with access roads and during suitable weather conditions. Material may also be hauled offsite and burned at staging locations within Mitchell Canyon and Turtle Rock Ranch. Material would be loaded into the air curtain burner by hand. Broadcast burning would not occur for establishing shaded fuel breaks.

Herbicide Application

Herbicides would be used immediately after vegetation treatment to prevent regrowth of cut shrubs and trees. Application would consist of hand painting herbicides on the cut shrub or tree stumps. No spray application is proposed. Herbicide application would comply with the U.S. Environmental Protection Agency (EPA) label directions, as well as California Environmental Protection Agency (CalEPA) and California Department of Pesticide Regulation (DTSC) label standards. All herbicide application would be performed by certified and licensed pesticide applicators in accordance with all local, state, and federal regulations. The following herbicides, which are consistent with those considered for use in the CalVTP, may be applied:

- Glyphosate (isopropylamine salt, potassium salt, dimethylamine salt & diammonium salt); and
- Triclopyr (butoxyethyl ester & triethylamine salt; brand name Vastlan or Garlon 4 Ultra).

PERIMETER FUEL BREAKS

Treatment Activities

Perimeter non-shaded and adjacent shaded fuel breaks would be developed and maintained annually through manual treatment, mechanical treatment, and herbicide application and according to specifications in the *Mount Diablo SP Wildfire Management Plan* (CSP 2003). Sections of fuel breaks serving as contingency lines along the WUI would also be constructed prior to a broadcast burn (planned for the ecosystem restoration treatment type). Fuel break maximum width and prescriptions are dependent on vegetation type. In grasslands, fuel breaks would consist of a maintained fire road or a mineral soil break 20 feet wide, a mineral soil break 30 feet wide where structures are adjacent to the park boundary, and a mineral soil break 50 feet wide on the northern boundary where residential structures are adjacent to the park and within the City of Clayton.

In chaparral/shrublands, fuel breaks would consist of maintained existing roads or constructed mineral soil breaks 10 feet wide, in addition to a nonshaded fuel breaks of variable width up to three times the height of the shrubs. In the nonshaded fuel break areas, 30 to 40 percent of the live shrub canopy would be left intact as small islands or clumps. In woodland and forests, fuel breaks would consist of maintained existing fire road or constructed mineral soil break 10 feet wide, in addition to a fuel break of variable width up to three times the height of the trees. Within these areas, ladder fuels would be reduced to less than 2 feet in height or removed. Dead, dying, and diseased trees and live trees with poor structure or structural damage would be felled. If live trees have overlapping driplines, the least desirable tree would be felled. Dead and down materials 0.5-inch to 6 inches in diameter would also be cleared.

Treatment would be implemented using hand tools and hand-operated power tools including chainsaws, hand saws, and/or brush cutters. A grader would be used to create and maintain the mineral soil break. Mowers may also be used for clearing overgrown vegetation like grasses, mustards, and thistles within 10 feet of either side of roadways to improve access. Herbicides would be applied by painting stumps immediately after vegetation treatment to prevent regrowth of cut shrubs and trees.

2.1.2 Ecological Restoration

The proposed project would implement ecological restoration treatments for the dual purpose of wildfire risk reduction and enhancement of natural habitats. Consistent with the CalVTP ecological restoration treatment type, the proposed ecological restoration treatments seek to return the landscape closer to conditions where natural fire processes can be reestablished and habitat quality can be improved by controlling nonnative plants, reducing excess buildup of fire fuel, and promoting healthier and more resilient forest, chaparral, and grassland communities. In addition, treatments are intended to be beneficial to sensitive species like Alameda whipsnake, California red-legged frog, California tiger salamander, Mount Diablo manzanita, and Contra Costa manzanita. The *Draft Recovery Plan for*

Chaparral and Scrub Community Species East of San Francisco Bay, California states that the alteration of suitable habitat from fire suppression is one of the reasons for the decline in Alameda whipsnake populations (USFWS 2002a). Fuel reduction and beneficial fire can promote suitable habitat for Alameda whipsnake by preventing a closed-canopy habitat from establishing and by reducing the severity of fires. Restoration objectives include:

- removal of dead and diseased trees and shrubs to reduce wildfire risk;
- selective thinning of live trees and shrubs in forests and chaparral to reduce competition, reduce overgrown conditions, enhance habitat for Alameda whipsnake, and promote more vigorous growth of retained trees and shrubs;
- broadcast burning and herbicide treatment by hand spraying in annual grasslands to encourage native species, promote habitat quality for special-status species, and restore the natural fire regime;
- broadcast burning after initial manual treatment in forests to manage fuel loading and promote natural regeneration;
- disposal of generated slash biomass via pile burning, air curtain burning, lop and scatter, and/or chipping;
- selective retention of ecologically beneficial downed logs and standing snags that do not pose a health or safety hazard, to provide wildlife habitat;
- minimize disturbance to ecologically beneficial down wood where feasible when masticating, only moving large pieces of woody debris when necessary to reduce fire behavior or gain access to larger portions of treatment areas; and
- during treatment of oak-bay woodlands, focus on understory thinning, thinning of dense stands of young native trees and saplings, removing invasive nonnative vegetation, retaining select trees smaller than 6 inches dbh to encourage size class diversity, and remove dead materials in the understory and canopy to reduce the available fuel load and increase vertical separation between retained trees.

The proposed vegetation treatment activities are manual and mechanical treatments, prescribed burning, and herbicide application. Biomass would be disposed of through chipping, lopping and scattering, pile burning, and air curtain burning. Each of these activities is included in the CalVTP Program EIR and is described in more detail below.

OAK WOODLAND

Oak woodlands provide habitat for a wide variety of species in the project area including a variety of bats and native birds. Oak woodland will not be targeted for treatment in most cases. In some treatment areas, fire roads cross through oak woodland habitat and these may be used as control lines for prescribed burns. Most oak woodlands in treatment areas have low levels of ladder fuel, and understory may be treated selectively if ladder fuels are assessed by an RPF as dense enough to risk guiding a fire into the upper canopy.

NATIVE GRASSLAND RESTORATION

Healthy grasslands support high biodiversity and provide important habitat for various sensitive species found in Mount Diablo SP. Although Alameda whipsnake primarily uses chaparral/shrub habitats, maintaining open grasslands is also important for this species because grasslands are used extensively during mating season. In addition, California red-legged frog and California tiger salamander may spend most of their lives refuging within the uplands in small mammal burrows and can travel more than a mile overland to reach breeding pools. Most of the grasslands in Mount Diablo SP are dominated by nonnative annual species and invasive species, such as artichoke thistle, yellow star thistle, poison hemlock, Spanish broom, barb goatgrass, medusahead, Himalayan blackberry, and stinkwort. Invasive species can degrade habitat quality by outcompeting native plants, reducing biodiversity, and increasing levels of thatch that can restrict movement of wildlife that use grasslands.

Treatment Activities

Prescribed Burning

The project proposes to implement broadcast burning at regular fire return intervals to efficiently manage annual grasslands within the project area, promote fire-adapted native species, and reduce shrub encroachment to prevent habitat conversion. Fire return intervals will be adjusted based on post-fire monitoring of vegetation communities and will be reassessed every 1 to 5 years depending on specific treatment objectives (treating invasive species, promoting native grasses) and avoidance of adverse effects from habitat alteration. Control and contingency lines would be constructed using hand tools, particularly in sensitive areas like adjacent to riparian habitats, or a dozer/grader if hand lines are not sufficient. Existing roads and trails would be used as control lines when possible. Control lines would be restored to grade with hand tools and monitored for regrowth and invasive species after the completion of each burn. Depending on native grass recruitment, burned areas may also be reseeded with local native grasses. Approximately 2,185 acres have been identified for potential treatment with broadcast burning due to proximity to existing roads as control lines, which would minimize creation of new control lines. These grasslands are primarily within Mitchell Canyon and the southwestern portion of Mount Diablo SP throughout Pine Canyon and Curry Canyon.

Herbicide Application

Invasive species that typically grow in disturbed areas after a fire, such as mustards and thistles, would be selectively treated with spot herbicide application using backpack sprayers. Herbicides would be used on an annual basis during the appropriate phenology windows. Herbicide application would comply with the EPA label directions, as well as CalEPA and DTSC label standards. All herbicide application would be performed by certified and licensed pesticide applicators in accordance with all local, state, and federal regulations.

COULTER PINE FOREST HEALTH AND RESILIENCY

The unique populations of Coulter pine (*Pinus coulteri*) found in Mount Diablo SP are within the northernmost range of a primarily southern species. However, these Coulter pine stands have been declining rapidly in the past decade. During 2013–2016, almost half of the 1-square mile population along Meridian Ridge at Mount Diablo SP died or was severely weakened. Drought stress from climate change, attacks by bark beetles, overcrowding and competition, and fire suppression activities are likely factors of the declining populations at Mount Diablo SP. Although this species is fire-adapted and drought-resilient, pests like bark beetles and high intensity burns can kill mature trees. Coulter pines could have difficulty persisting at Mount Diablo SP and the genetics of this northernmost population may be lost without intervention.

Starting in early 2021, new patches of dying Coulter pines began appearing throughout the same extent of the 2013 die-off and another rapid mortality event is inevitable. This project would enhance the resiliency of Coulter pines to the effects of climate change and reduce the risk of high-intensity wildfire by thinning pines in overcrowded conditions, removing pines with signs of pests and pathogens, removing ladder fuels, enhancing access in case of wildfire, and promoting the health of mature Coulter pines within 1,494 acres of its range along Eagle Peak and Meridian Ridge.

Treatment Activities

Manual Treatment

Coulter pine mortality areas within 10 feet on each side of existing trails, including portions of Mitchell Rock Trail, Coulter Pine Trail, Back Creek Trail, and Eagle Peak Trail, would be selectively thinned and cleared of surface and ladder fuels by manual means. Within the 10 feet, trees less than 6 inches dbh would be cleared and dead trees/shrubs and live trees/shrubs with poor vigor and structure would be removed. Live shrubs overlapping with driplines of retained trees would also be removed. In addition, mature and healthy Coulter pines that are more resilient to fire and climate change would be preserved by removing 50 percent of ladder and surface fuels within 100 feet and all vegetation 10 feet from the bases of mature Coulter and grey pines throughout the mortality areas. All

treatments would be implemented using hand tools and hand-operated power tools, including chainsaws, hand saws, and/or brush cutters.

Mechanical Treatment

Mechanical treatments in the Coulter pine forest would primarily include masticating target vegetation using tractors/skidders and/or masticators. The project would reduce risk of high intensity wildfire to Coulter pine forests and bordering facilities, residences, and neighborhoods by reducing excess fuels. Fuels reduction would be achieved by removing 90 percent of dead and dying pines and 50 percent of surface and ladder fuels within the Coulter pine range. The treatment would also reduce overcrowding of Coulter pines from historic fire suppression to reduce drought stress and susceptibility to bark beetle infestations. Treatment of Coulter pines would encourage development of open space between trees and regeneration of seedlings. Treatments aim to increase age diversity by removing 50 percent of young gray pines (*Pinus sabiniana*) throughout the project area and thinning out 50 percent of young Coulter pines in dense stands. Due to steep slopes in the project area, tractors/skidders and/or masticators would only be used in areas less than 30 percent slope and where access to the project area is also less than 30 percent slope. Treatment areas would be restored to a level grade using hand tools or grader if substantial erosion has occurred. Mowers may also be used for clearing herbaceous vegetation to create control lines for prescribed burns. A portion of the manually cleared vegetation would also be chipped using tow chippers near access roads or track chippers. Track chippers would only be used on existing roads. Chipping would occur within 25 feet of roads. Chips would be spread within treatment areas at a depth no greater than 2 inches, they would be spread in a mosaic pattern to leave patches of bare ground, and chips would cover no more than 20 percent of a given treatment area.

Prescribed Burning

Prescribed burning treatments of Coulter pine would include pile burning, use of air curtain burners at the treatment site or nearby staging areas, and broadcast burning. Biomass generated from treatment activities would be manually piled using hand crews and burned in piles in compliance with BAAQMD standards. An air curtain burner would be used as an alternative to pile burning in areas with access roads and during suitable weather conditions. Material may also be hauled offsite and burned at staging locations within Mitchell Canyon and Turtle Rock Ranch. Material would be loaded into the air curtain burner by hand. Broadcast burning would also be implemented to restore a natural fire regime in Coulter pine forests at appropriate fire return intervals in understory vegetation after substantial manual treatment has occurred to reduce hazardous fuels. A helicopter with a helitorch may be used when an area has terrain with limited accessibility. Helicopters will be used only during broadcast burns for aerial ignitions where access is limited or where higher fire intensity is needed to achieve burn objectives. Helicopters would only be used during daytime hours, and helicopters would comply with recommendations of the Rotorcraft Bird Strike Working Group (FAA 2017), which vary based on the equipment being operated. These restrictions include seasonal restrictions (avoid flight during the nesting season, January 15-August 31), altitude restrictions (when feasible, helicopters should travel at altitudes exceeding 3,500 feet above ground level), and airspeed restrictions (below 80 knots). Control lines would be constructed using hand tools or a dozer/grader if hand lines are not sufficient and existing roads and trails would be used whenever possible. Contingency lines along the WUI would also be constructed prior to a prescribed burn. Lines would then be restored to grade with hand tools, reseeded with native species if necessary, and monitored for regrowth and invasive species after the completion of each burn.

KNOBCONE PINE AND MANZANITA FOREST RESILIENCY

Thousands of stressed, diseased, and dying trees including oaks, bay laurel, toyon, pines, and manzanitas occur along Wall Point Road and Knobcone Point Road in Mount Diablo SP, as a result of an extremely dry year with little rainfall. Preliminary surveys and analyses by CAL FIRE forest pathologists and the UC Berkeley Forestry and Pathology Lab have revealed that knobcone pine (*Pinus attenuata*), gray pine, Mount Diablo manzanita (*Arctostaphylos auriculata*), and common manzanita (*Arctostaphylos manzanita*) are the species most affected by the drought. Bark beetles, pitch canker, and blue stain, which are common pests and pathogens that can heavily infest trees weakened by environmental stressors like drought and overcrowding, were found to be the predominant proximate causes of

mortality or disease among the pine species. Similarly, disease-causing endophytic fungi were identified as potentially causing severe branch diebacks and lesions on leaves and stems.

This project proposes to reduce fuel buildup from dead vegetation and overcrowded conditions within approximately 1,544 acres of these areas and along surrounding roads and trails. Approximately 90 percent of dead vegetation would be removed. In addition, ladder fuels within forested areas in the project boundaries would also be thinned. Fuels management in these mortality areas is essential to reduce risk of high intensity wildfire but would also prepare the sites for potential prescribed burns in the future, which is essential for promoting regeneration of healthy manzanita and pine populations.

Treatment Activities

Manual Treatment

The project would use manual treatment to reduce standing fuel in knobcone pine and manzanita along 100 feet on each side of portions of Knobcone Point Road, Black Hawk Ridge Road, Wall Point Road, Summit Trail Road, and Summit Road within the mortality area. In addition, 10 feet along each side of trails, including portions of Oyster Point Trail, Devil's Slide Trail, Trail Through Time, Black Point Trail, and Summit Trail, would be selectively thinned and cleared of surface and ladder fuels. Within clearance zones, trees less than 6 inches dbh would be cleared and dead trees/shrubs and live trees/shrubs with poor vigor and structure would be removed. Foliage of retained trees would be pruned up to 10 feet above ground or up to 1/3 of the tree's total live foliage, whichever is less. Live shrubs overlapping with dripline of retained trees would also be removed. Hazardous ladder fuels would be reduced by 50 percent from forested areas within the mortality zone to prepare sites for prescribed burning.

Mechanical Treatment

Mechanical treatments in knobcone pine and manzanita would primarily include masticating target vegetation using tractors/skidders and/or masticators. The project would remove up to 90 percent of dead and dying pines/manzanitas and 50 percent of surface and ladder fuels within the mortality areas. The treatment would also reduce overcrowding by thinning 50 percent of live knobcone pines and manzanitas. Due to steep slopes in the project area, tractors/skidders and/or masticators would only be used in areas less than 30 percent slope and where access to the project area is also less than 30 percent slope. Treatment areas would be restored to grade using hand tools or a grader if substantial erosion has occurred. Mowers may also be used for clearing herbaceous vegetation to create control lines for prescribed burns. A portion of the manually cleared vegetation would also be chipped using tow chippers near access roads or track chippers. Chips would be spread within treatment areas at a depth no greater than 2 inches.

Prescribed Burning

Prescribed burning treatments of knobcone pine and manzanita would include pile burning, use of air curtain burners at the treatment sites or nearby staging areas, and broadcast burning. Biomass generated from treatment activities would be manually piled using hand crews and burned in piles in compliance with BAAQMD standards. The air curtain burner would be used as an alternative to pile burning in areas with access roads and during suitable weather conditions. Material may also be hauled offsite and burned at staging locations within Mitchell Canyon and Turtle Rock Ranch. Material would be loaded into the air curtain burner by hand. Broadcast burning would also be implemented to restore natural fire regimes in manzanita communities and knobcone pine forests at appropriate fire return intervals in the understory after substantial manual treatment has occurred to reduce hazardous fuels. A helicopter with a helitorch may be used when an area has terrain with limited accessibility. Helicopters will be used only during broadcast burns for aerial ignitions where access is limited or where higher fire intensity is needed to achieve burn objectives. Helicopters would only be used during daytime hours, and helicopters would comply with recommendations of the Rotorcraft Bird Strike Working Group (FAA 2017), which vary based on the equipment being operated. These restrictions include seasonal restrictions (avoid flight during the nesting season, January 15-August 31), altitude restrictions (when feasible, helicopters should travel at altitudes exceeding 3,500 feet above ground level), and airspeed restrictions (below 80 knots). Control lines would be constructed using hand tools or a dozer/grader if hand lines are not sufficient, and existing roads and trails would be used whenever possible.

Contingency lines along the WUI would also be constructed prior to a prescribed burn. Lines would then be restored to grade with hand tools, reseeded with native species if necessary, and monitored for invasive species after the completion of each burn.

2.1.3 Biomass Disposal

Biomass created during the proposed vegetation treatments described above would be disposed of primarily by the following means:

- masticating (mulching) vegetative debris and placing it on the ground concurrently with vegetation removal, and the biomass remaining after mastication would be no more than 4 inches deep (approximately 10 percent of biomass);
- chipping materials within 25 feet on either side of a road, and chipped biomass would be spread over treatment areas and would not exceed 2 inches deep (approximately 25 percent of biomass);
- lopping and scattering within the treatment boundaries, and the biomass would be no more than 18 inches deep to promote decomposition (approximately 10 percent of biomass);
- pile burning[1] or burning with an air curtain burner[2], which may be used to dispose of cut, chipped, and masticated materials (approximately 25 percent of biomass); or
- broadcast burning (approximately 30 percent of biomass).

Invasive plant and noxious weed biomass would be treated on-site to eliminate seeds and propagules or would be disposed of off-site at an appropriate waste collection facility to prevent reestablishment or spread of invasive plants and noxious weeds. Invasive plants and noxious weeds would not be chipped and spread, scattered, or mulched on site.

An air curtain burner, which could include the "BurnBoss" and/or "FireBox," would be used to disposed of biomass. These units range in size. The BurnBoss is a small, highly mobile self-contained kiln that can be towed with a standard heavy-duty pickup truck. The FireBox is a larger unit that can be transported using a trailer. A small Environmental Protection Agency (EPA) Tier 4 diesel engine powers these systems, which consumes one-third of a gallon of diesel fuel per hour at full power. Biomass would be carried from the work sites to the burner and hand fed into the air curtain burner. Once the burning is complete, produced wood ash and biochar would be scattered onto the forest floor to turn back into the soil once cooled. Air curtain burners would be set up on existing roadways and/or landings that meet the qualifications for their use, which comprise level, previously disturbed areas that are devoid of vegetation. 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.

2.2 TREATMENT MAINTENANCE

Maintenance treatments (i.e., retreatment) of shaded fuel breaks would be based on annual monitoring of site conditions. In shrub-dominated areas, treatment maintenance is anticipated to occur approximately every 5 years, and in forested areas, treatment maintenance is anticipated to occur approximately every 10 years. Maintenance treatment methods would employ the same vegetation treatment activities used in the initial treatment. Maintenance

[1] Pile burning is a mechanism to consume biomass; however, the impact analysis in the CalVTP Program EIR considers pile burning as a method of prescribed burning to account for similar impacts as broadcast burning, which is also considered a method of prescribed burning in the Program EIR. Similarly, mastication and chipping are biomass processing methods that are have similar impacts to and are considered under mechanical treatments.

[2] Air curtain burners have been designed to consume biomass quickly and efficiently with a substantial reduction in smoke compared to pile burning (refer to additional information in Section 4.3, "Air Quality," and Section 4.7, "Greenhouse Gas Emissions"). Mitigation Measure GHG-2 in the CalVTP Program EIR requires project proponents to implement feasible methods, including the use of air curtain burners, to reduce the greenhouse gas (GHG) emissions from pile burning.

of perimeter fuel breaks would occur annually, and methods would apply the same vegetation treatment activities used in the initial treatment.

Native grassland maintenance would follow fire regime characteristics for California grassland communities as taken from LANDFIRE Rapid Assessment Vegetation Models. Treatment areas would be burned at regular intervals, approximately every 1 to 3 years until the invasive seedbank has been exhausted and the persisting vegetation community is composed of at least 50 percent native grasses. Prescribed burning would then occur at least every 3 years to maintain desired native vegetation community composition and structure.

Treatment maintenance of Coulter pine forests would be based on annual monitoring of site conditions. Treated forest conditions would be maintained using broadcast burning after the completion of initial treatment to reduce hazardous fuel loads. The fire return interval would be determined based on monitoring of fuel loads, vegetation community responses, stand maturity, and seed production; in Coulter pine habitats, the fire return interval would be approximately every 30 years. Burning in Coulter pine woodland and forest opens serotinous cones to allow reseeding and seedlings establish readily from seed following burns, a process that cannot be reproduced through manual or mechanical methods. Treatment maintenance using manual or mechanical methods similar to the original treatment may be required if additional preparation for broadcast burns is needed.

Treatment maintenance of knobcone pine areas would be based on annual monitoring of site conditions. Treated forest conditions would be maintained using broadcast burning after the completion of initial treatment to reduce hazardous fuel loads when the landscape is outside of its fire return interval. The fire return interval would be determined based on monitoring of fuel loads, vegetation community responses, stand maturity, and seed production. Retreatment using manual or mechanical methods similar to the original treatment may be required if additional preparation for broadcast burns is needed.

Prior to implementing a maintenance treatment, the CSP would 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 would be considered by CSP in light of potentially changed conditions or circumstances. If environmental conditions evolve or project approaches change to the degree that CSP finds new or substantially more severe impacts may occur, CSP would determine whether a new PSA/Addendum or other environmental analysis is warranted.

In addition to verifying that the PSA/Addendum continues to provide relevant CEQA coverage for treatment maintenance, CSP would update the PSA at the time a maintenance treatment is needed when more than 10 years have passed since the approval of the PSA/Addendum or the latest PSA/Addendum update. For example, CSP may conduct a reconnaissance survey to verify conditions are substantially similar to those anticipated in the PSA/Addendum. Updated information should be documented. If needed because of changed conditions or treatments in response to changed conditions, the Addendum may be updated and supplemented, as long as new or substantially more severe significant environmental effects do not arise.

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3 ENVIRONMENTAL CHECKLIST

VEGETATION TREATMENT PROJECT INFORMATION

1. **Project Title:** Mount Diablo State Park Vegetation Treatment Project
2. **CalVTP I.D. Number:** 2022-26
3. **Project Proponent Name and Address:** Diablo Range District - Northern Region
   California State Parks
   96 Mitchell Canyon Road
   Clayton, CA 94583
4. **Contact Person Information and Phone Number:** Christina Lew McLain
   510.220.3608
   Christina.Lew@parks.ca.gov
7. **Project Location:** Mount Diablo SP, Contra Costa County. Located north of Blackhawk, east of Alamo, Danville, Diablo, and Walnut Creek, south of Clayton, and southwest of Concord. Primary access to the park is from SR 24 from the west, SR 4 from the west and east, and I-680 from the north and south.
8. **Total Area to Be Treated (acres)** Up to 7,510 acres
9. **Description of Project**:

   a. Initial Treatment
   Initial treatments would include fuel breaks and ecological restoration treatments using manual treatments, mechanical treatments, prescribed burning, and herbicide application. See Chapter 2, "Project Description," for additional details.

Treatment Types

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

Treatment Activities

- ☒ Prescribed Burning (Broadcast), 4,957 acres
- ☒ Prescribed Burning (Pile Burning), 2,796 acres
- ☒ Mechanical Treatment, 1,519 acres
- ☒ Manual Treatment, 4,072 acres
- ☐ Prescribed Herbivory, 0 acres
- ☒ Herbicide Application, 4,738 acres

Fuel Type

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

b. Treatment Maintenance

See Section 2.2, "Treatment Maintenance," for additional details.

Treatment Types

☐ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast), 4,957 acres

☒ Prescribed Burning (Pile Burning), 1,275 acres

☒ Mechanical Treatment, 759 acres

☒ Manual Treatment, 2,553 acres

☐ Prescribed Herbivory, 0 acres

☒ Herbicide Application, 4,753 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

See Section 2.2, "Treatment Maintenance," for additional details.

10. Regional Setting and Surrounding Land Uses:

The project is within the 20,124-acre Mount Diablo SP. Except on the southeast, low valleys surround the park with residential/business development in the unincorporated communities of Alamo, Blackhawk, and Diablo, and the cities of Clayton, Concord, Danville, and Walnut Creek. To the east, are the agricultural lands of the San Joaquin Valley.

11. Other Public Agencies Whose Approval Is Required: (e.g., permits)

Contra Costa County Department of Agriculture/Weights & Measures – pesticide application permit

BAAQMD – smoke management plan and burn permit

Coastal Act Compliance

☒ The proposed project is NOT within the Coastal Zone.

☐ The proposed project is within the Coastal Zone. (C*heck one of the following boxes.*)

- ☐ A coastal development permit has 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.

12. Native American Consultation. *The Board of Forestry and Fire Protection completed consultation pursuant to Public Resources Code Section 21080.3.1 during preparation of the Program EIR; however, CalVTP SPR CUL-2 requires further tribal coordination during PSA preparation.*

Pursuant to SPR CUL-2, Native American contacts in Contra Costa County were contacted on December 9, 2022, and included Wilton Rancheria, Indian Canyon Mutsun Band of Costonoan, Muwekma Ohlone Tribe of the SF Bay Area, North Valley Yokut Tribe, and Confederated Villages of Lisjan. Responses were received from the Northern Valley Yokut Tribe and from the Confederated Villages of Lisjan.

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DETERMINATION

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

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

☒ I find that the presence of proposed project areas outside the CalVTP treatable landscape will 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, an ADDENDUM is adopted to address the project areas outside the geographic extent presented in the Program EIR.

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

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

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

DocuSigned by:
Clinton Elsholz
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Signature

11/1/2023
Date

Clinton Elsholz
Clinton Elsholz

District Superintendent (Acting)
Senior Environmental Scientist

California Department of Parks and Recreation

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4 PROJECT-SPECIFIC ANALYSIS/ADDENDUM

4.1 AESTHETICS AND VISUAL RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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-4 AES-2 AQ-2 AQ-3 REC-1	NA	LTS	No	Yes
Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Wildland-Urban Interface Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	Yes	AES-1 AES-3	NA	LTS	No	Yes
Impact AES-3: Result in Long-Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Nonshaded Fuel Break Treatment Type	SU	Impact AES-3, pp. 3.2-25 – 3.2-27	Yes	NA	AES-3	SU	No	Yes

Notes: LTS = less than significant; SU = significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT AES-1

Initial and maintenance treatments would include mechanical treatment, manual treatment, prescribed burning, and targeted ground application of herbicides. The potential for these treatment activities to result in short-term degradation of the visual character of the project area was examined in the Program EIR. The nearest eligible state scenic highway is SR 4, located approximately 8 miles east of the project area. The nearest officially designated state scenic highways are SR 24, located approximately 5 miles west of the project area, and I-680 located, approximately 3 miles west of the project area (Caltrans 2022). The proposed treatments would occur on public lands. Public viewpoints within and near the project area from which treatments would be visible include public trails (e.g., Mount Diablo Grand Loop Trail; the Summit Trail) and recreation areas (e.g., Mount Diablo Summit Museum and Trailhead) within Mount Diablo SP, public trails and recreation areas within Diablo Foothills Regional Park, public trails and recreation areas within Castle Rock Regional Recreation Area, SR 4, SR 24, I-680, and other public roadways. Although portions of the project area are visible from public viewpoints and from one eligible and two officially designated state scenic highways, the project area is densely vegetated with mature trees, buildings, and varied topography, which would substantially reduce the visibility of treatments from public viewpoints. In addition, treatments would remove shrubs and trees smaller than 6 inches dbh, leaving overstory vegetation. Although in the short-term after treatment, the absence of treated vegetation could be noticeable, mature vegetation would remain to provide partial screening of treatment areas. However, equipment, crews and smoke from prescribed burning could be visible from public viewpoints and eligible (SR 4) and officially designated (SR 24 and I-680) state scenic highways in the short term.

The potential for the project to result in short-term substantial degradation of the visual character of the project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. SPRs applicable to the proposed treatments are AD-4, AES-2, AQ-2, AQ-3, and REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AES-2

Initial and maintenance treatments would include ecological restoration and shaded and non-shaded fuel break treatment types. The potential for these treatment types to result in long-term degradation of the visual character of an area was examined in the Program EIR. Public viewpoints of the project area include public trails and recreation areas within and around Mount Diablo SP, SR 4, SR 24, I-680, and other public roadways. Treatments would remove shrubs and trees smaller than 6 inches dbh, leaving overstory vegetation. Therefore, mature vegetation would remain to provide partial screening of treatment areas. The long-term visual character of the treatment areas after implementation of the proposed ecological restoration and shaded fuel break treatments would remain consistent with the current natural, vegetated landscape and would not constitute a substantial adverse change or degrade the currently visual character of the landscape.

The potential for the project to result in long-term substantial degradation of the visual character of the project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing visual character is essentially the same within and outside of the treatable landscape; therefore, the long-term aesthetic impact is also the same, as described above. SPRs applicable to the proposed treatments are AES-1 and AES-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AES-3

Fuel breaks in the project area would be shaded and non-shaded and would be implemented along the perimeter of the park boundary. The potential for this treatment type to result in long-term degradation of the visual character of an area was examined in the Program EIR and found to be significant and unavoidable after the application of all feasible mitigation measures because it may be infeasible to relocate a non-shaded fuel break to avoid public visibility. Public viewpoints of the project area include public trails and recreation areas within and around Mount Diablo SP, SR 4, SR 24, I-680, and other public roadways. Non-shaded fuel breaks could be visible from public viewpoints.

The potential for the project to result in substantial long-term degradation of the visual character of the project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing visual character is essentially the same within and outside of the treatable landscape; therefore, the long-term aesthetic impact is also the same, as described above. No SPRs are applicable to this impact; however, Mitigation Measure AES-3 would apply to this treatment to minimize visual impacts, if feasible, from any heavily used scenic vistas, public trails, recreation areas, and state scenic highways with lengthy views (i.e., longer than a few seconds) of non-shaded fuel breaks. While implementation of Mitigation Measure AES-3 would substantially reduce the potential for substantial long-term degradation of visual character, as noted in the Program EIR, the amount of the reduction would be uncertain; therefore, the potential remains for substantial long-term degradation of visual character. For purposes of CEQA compliance, this impact is considered significant and unavoidable. This determination is consistent with the Program EIR and would not constitute a new or substantially more severe significant impact than what was covered in the Program EIR.

NEW AESTHETIC AND VISUAL RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities covered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.2.1, "Environmental Setting," and Section 3.2.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions pertinent to aesthetics and visual resources 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 consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impact. Therefore, no new impact related to aesthetics and visual resources would occur.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT AG-1

Vegetation treatment activities implemented within the project area would include manual, mechanical, prescribed burning, and targeted ground application of herbicide treatments to implement ecological restoration and fuel break treatment types. The creation of shaded fuel breaks would involve the thinning of the tree canopies in forested areas by removing live trees up to 6 inches dbh, dead trees/shrubs, and live trees/shrubs with poor vigor and structure. Foliage of retained trees would be pruned up to 10 feet above the ground or up to 1/3 of the tree's total live foliage, whichever is less. Live shrubs overlapping with dripline of retained trees would also be removed. Live trees greater than 6 inches dbh would be limbed up to 10 feet high. Herbicides would be used immediately after vegetation treatment to prevent regrowth of cut shrubs and trees.

The potential for these treatment types and treatment activities to result in the loss of forestland or conversion of forestland to non-forest use was examined in the Program EIR. The treatment activities described above would occur in forested lands. Consistent with the Program EIR, the vegetation remaining after treatments would meet the definition of forestland as defined in PRC Section 12220(g), which defines "forest land" as land that can support 10-percent native tree cover of any species under natural conditions. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the composition of forested land as defined in PRC

Section 12220(g) is essentially the same within and outside the treatable landscape; therefore, the impact to forest land is also the same, as described above. No SPRs are applicable to this impact. Therefore, the potential for the project to result in the loss or conversion of forestland is within the scope of the Program EIR. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AGRICULTURE AND FORESTRY RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.3.1, "Environmental Setting," and Section 3.3.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. 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 covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to new significant impacts not addressed in the Program EIR. Therefore, no new impact related to agriculture and forestry resources would occur that is not covered in the Program EIR.

4.3 AIR QUALITY

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	PSU	Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	Yes	AD-4 AQ-2 through AQ-6	AQ-1	PSU	No	Yes
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	LTS	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	Impact AQ-3, pp. 3.4-34 – 3.4-35	Yes	AQ-4 AQ-5	NA	LTS	No	Yes
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	PSU	Impact AQ-4, pp. 3.4-35 – 3.4-37	Yes	AD-4 AQ-2 AQ-6	NA (No feasible mitigation available)	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	HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	PSU	Impact AQ-6; pp. 3.4-38	Yes	AD-4 AQ-2 AQ-6	NA (No feasible mitigation available)	PSU	No	Yes

Notes: LTS = less than significant; PSU = potentially significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact; None = there are SPRs and/or MMs identified in the Program EIR 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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Pursuant to SPR AQ-2, CSP would prepare a smoke management plan and submit it to the BAAQMD prior to implementing any prescribed burn treatments. The smoke management plan would include fire behavior modeling and would be implemented by a state-certified burn boss. An Incident Action Plan, which identifies burn dates, burn hours, weather limitations, specific burn prescription, communication plan, medical plan, traffic plan, and other special instructions required by BAAQMD, would also be prepared by CSP for all proposed prescribed burn treatments. The Incident Action Plans would also identify the contact personnel with BAAQMD to coordinate on-site briefings, posting notifications, and weather monitoring during burning.

IMPACT AQ-1

Use of vehicles, mechanical equipment, and prescribed burning during initial and maintenance treatments would result in emissions of criteria pollutants that could exceed California Ambient Air Quality Standard (CAAQS) or National Ambient Air Quality Standard (NAAQS) thresholds. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the Program EIR and found to be potentially significant and unavoidable after the application of all feasible mitigation measures because of uncertainties in the degree of emissions reduction that could occur during implementation of later treatment projects. Emissions of criteria air pollutants related to the proposed treatment would be significant and are within the scope of the Program EIR because the associated equipment and duration of use are consistent with those analyzed in the Program EIR.

When feasible, CSP is proposing use of specialized biomass processing technologies in place of pile burning, pursuant to Mitigation Measure GHG-2. Evaluation of criteria air pollutant emissions from these biomass processing technologies conducted by Ascent (2022) indicates that smoke and criteria air pollutant emissions can be substantially reduced, compared to open pile burning. Use of an air curtain burner would substantially reduce reactive organic gas (ROG) and particulate matter (PM) emissions by approximately 96 percent when compared to pile burning. Carbonization (i.e., use of a biochar kiln) would substantially reduce ROG emissions by approximately 98 percent and PM emissions by 71 percent when compared to pile burning. For nitrous oxide (NO_X), air curtains are estimated to reduce NO_X emissions by at least 73 percent and carbonization using a biochar kiln is estimated to reduce NO_X emissions by approximately 39 percent (Ascent 2022). Based on available information about emissions from specialized biomass processing technologies, these technologies offer the opportunity to substantially reduce local exposure to PM from smoke, a potentially beneficial difference compared to pile burning

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. The SPRs applicable to this treatment project are AD-4, and AQ-2 through AQ-6. Mitigation Measure AQ-1 is also applicable to this project. All measures under Mitigation Measure AQ-1 would be implemented to the extent feasible. Despite the substantial reduction in criteria air pollutant emissions afforded by use of the biomass processing technologies, Impact AQ-1 must still be recognized as potentially significant and unavoidable because of uncertainties in the extent of their use. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-2

Use of mechanical equipment during initial and maintenance treatments could expose people, such as hikers and recreationalists around Mount Diablo SP, to diesel particulate matter emissions. However, treatment activities would not take place near the same people for an extended period. The potential to expose people to diesel particulate matter emissions was examined in the Program EIR. Diesel particulate matter emissions from the proposed treatments are within the scope of the Program EIR because the exposure potential is the same as analyzed in the Program EIR, and the types and amount of equipment that would be used, as well as the duration of use, during

proposed treatments are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. SPRs applicable to this treatment are HAZ-1, NOI-4, and NOI-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-3

Use of vehicles, mechanical equipment, and prescribed burning during treatments would involve ground disturbing activities. The potential to expose people to naturally occurring asbestos (NOA)-containing fugitive dust emissions was examined in the Program EIR. Most of the treatment areas are not located on soil types where NOA would be present; however, portions of the project area are underlain by serpentine soils. Potential NOA exposure from the proposed treatments is within the scope of the activities and impacts addressed in the Program EIR because the exposure potential is essentially the same within and outside the treatable landscape and avoidance of treatments in NOA-containing areas is consistent with the impacts analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions 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 the same, as described above. SPR AQ-4 would minimize dust including NOA-containing fugitive dust. In accordance with SPR AQ-5, no treatments would occur in these areas unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by BAAQMD. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-4

Prescribed burning during initial and maintenance treatments could expose people to toxic air contaminants, which was examined in the Program EIR. When feasible, the use of specialized biomass processing technologies is proposed to reduce smoke emissions and associated toxic air contaminants in comparison to pile burning. TACs resulting from the combustion of biomass are generally organic in nature and are, therefore, a subset of ROG emissions. Based on evaluation conducted by Ascent (2022), the proposed use of air curtain burners would reduce ROG emissions by at least 96 percent when compared to pile burning of equivalent areas. Therefore, the exposure of persons to TACs and related health risks would likely be substantially lower with the use of air curtain burners as compared with pile burning.

The duration and parameters of the prescribed burns are within the scope of the activities addressed in the Program EIR, and impacts would be reduced with the use of specialized biomass processing technologies. Therefore, the potential for exposure to toxic air contaminants is also within the scope the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions present and air basins in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to these treatment activities are AD-4, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke emissions, as well as exposure to smoke, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-5

Use of diesel-powered equipment during vegetation treatments could expose people to objectionable odors from diesel exhaust. The potential to expose people to objectionable odors from diesel exhaust was examined in the Program EIR. Consistent with the Program EIR, diesel exhaust emissions would be temporary, would not be generated at any one location for an extended period of time, and would dissipate rapidly from the source with an increase in distance. This impact is within the scope of the Program EIR because the equipment that would be used and the duration of use under the proposed project are consistent with what was analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors 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 the same, as described above. SPRs applicable to the proposed project are HAZ-1, NOI-4, and NOI-5. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-6

Prescribed burning during initial and maintenance treatments could expose people to objectionable odors. The potential to expose people to objectionable odors from prescribed burning was examined in the Program EIR. The use of specialized biomass processing technologies is proposed to reduce smoke emissions and associated odors in comparison to pile burning. When compared to pile burning, the proposed biomass processing technologies would substantially reduce smoke through filtering (i.e., air curtains).

The duration and parameters of the prescribed burning and the exposure potential are consistent with the activities addressed in the Program EIR, and smoke would be reduced with the use of specialized biomass processing technologies. Therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions present and sensitive receptors in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs that are applicable to this treatment project are AD-4, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke odors, as well as exposure to smoke odors, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AIR QUALITY IMPACTS

The proposed treatments are consistent with the treatment types and activities covered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP Program EIR (refer to Section 3.4.1, "Regulatory Setting," and Section 3.4.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 and, for the reasons described above, impacts of the proposed treatment project are consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impact. Therefore, no new impact related to air quality would occur.

4.4 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

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

Notes: LTS = less than significant; SU = significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

CSP maintains its own inventory of cultural resources. This includes records from the Northwest Information Center (NWIC) and records prepared by the Diablo Range District's cultural resources staff. Consistent with SPR CUL-1, these records were obtained on October 27, 2022. The review revealed 37 previously recorded precontact archaeological sites, 32 historic-era archaeological sites, and 70 historic features. Two of the historic features have been previously evaluated as not eligible for listing on the California Register of Historical Resources (CRHR).

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On December 9, 2022, letters or emails inviting the tribes to consult were mailed to the tribal representatives indicated by NAHC. Two responses from tribal representatives were received as of February 1, 2023. A December 21, 2022 search of NAHC's sacred lands database returned negative results.

IMPACT CUL-1

Proposed treatment activities include prescribed burning and mechanical treatments, which could damage historical resources. The records received from the Diablo Range District revealed 70 built-environment features (residences, barns, stables, garages, water conveyance systems, picnic, and campground facilities). Two resources, a road and a transmission line, have been previously evaluated as not eligible for listing on the CRHR; therefore, they are not considered resources under CEQA. The remaining features have not been evaluated for CRHR-eligibility; therefore, it is not known if they are considered resources under CEQA. Additional structures (i.e., buildings, bridges, roadways) over 50 years old that have not been recorded or evaluated for historical significance may be present in the project area, and these structures would be identified and avoided pursuant to SPR CUL-7. The potential for these treatment activities to result in disturbance, damage, or destruction of built-environment structures that have not yet been evaluated for historical significance was examined in the Program EIR. This impact is within the scope of the Program EIR because treatment activities and the intensity of disturbance of the treatment project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the potential to encounter built-environment structures that have not yet been evaluated for historical significance in areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on historical resources is also the same, as described above. SPRs applicable to this impact are CUL-1, CUL-7, and CUL-8. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-2

Vegetation treatment would include prescribed burning and mechanical treatments using heavy equipment that could churn up the surface of the ground during treatment as vegetation is removed; these activities may result in damage to known or previously unknown archaeological resources. The records received from the Diablo Range District included 69 previously recorded archaeological sites, consisting of precontact sites (lithic scatters, bedrock mortars with and without cupules, obsidian quarries, milling stations, rock rings with cairns) and historic-era archaeological sites (foundations, house site remnants, trash scatters, dam remnants, rocks walls, mining tunnels and prospect adits). None of these sites have been evaluated for eligibility for listing in the CRHR. Therefore, it is not known whether the sites are considered resources under CEQA. A survey would be conducted before treatment pursuant to SPR CUL-4 to identify any previously unrecorded archeological resources and identified resources would be avoided according to the provisions of SPR CUL-5.

The potential for these treatment activities to result in inadvertent discovery and subsequent damage of unique archaeological resources or subsurface historical resources during vegetation treatment was examined in the Program EIR. This impact was identified as significant and unavoidable in the Program EIR because of the large geographic extent of the treatable landscape and the possibility that there could be some rare instances where inadvertent damage of unknown resources may be extensive. For the Mount Diablo Vegetation Treatment Project, SPRs and Mitigation Measure CUL-2 would require identification and protection of resources, and it is reasonably expected that implementation of these measures would avoid a substantial adverse change in the significance of any unique archaeological resources or subsurface historical resources. However, because the project could result in inadvertent discovery and subsequent damage of unique archaeological resources or subsurface historical resources, it would contribute to the environmental significance conclusion in the Program EIR; therefore, for purposes of CEQA compliance, this PSA/Addendum notes the impact as significant and unavoidable, as explained in the Program EIR.

This impact is within the scope of the Program EIR, because treatment activities and intensity of ground disturbance of the treatment project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the potential for discovery of archaeological resources is essentially the same within and outside the treatable landscape; therefore, the potential impact on unique archaeological resources or subsurface historical resources is also the same, as described above. SPRs applicable to this impact include CUL-1 through CUL-5 and CUL-8. Mitigation Measure CUL-2 would also apply to this treatment to protect any inadvertent discovery. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-3

Native American representatives in Contra Costa County were contacted on December 9, 2022, and included Wilton Rancheria, Herbert Griffin; Indian Canyon Mutsun Band of Costanoan, Kanyon Sayers-Roods; Muwekma Ohlone Tribe of the SF Bay Area; North Valley Yokut Tribe, Katherine Perez; and Confederated Villages of Lisjan, Corrina Gould. The Confederated Villages of Lisjan and the North Valley Yokut Tribe responded and requested consultation. CSP met with the tribes on January 11 and January 31, respectively. CSP explained the project boundaries, treatment types, the applicable SPRs, and both tribes recommended measures to avoid impacts to tribal cultural resources.

The potential for the proposed treatment activities to cause a substantial adverse change in the significance of a tribal cultural resource during implementation of vegetation treatment was examined in the Program EIR. This impact is within the scope of the Program EIR because the intensity of ground disturbance of the treatment project is consistent with that analyzed in the Program EIR. As explained in the Program EIR, while tribal cultural resources may be identified within the treatable landscape during development of later treatment projects, implementation of SPRs would avoid any substantial adverse change to any tribal cultural resource. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the tribal cultural affiliations present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on tribal cultural resources is also the same, as described above. SPRs applicable to this impact include CUL-1 through CUL-6 and CUL-8. Accordingly, recommendations from the Confederated Villages of Lisjan and the North Valley Yokut Tribe have been integrated into SPR CUL-4, SPR CUL-5, and SPR CUL-6. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-4

Vegetation treatment activities would include mechanical treatments using heavy equipment; these treatments may use masticators, grader/bulldozers, and tractor/skidders, which could uncover human remains. The records received from the Diablo Range District did not reveal any burials or sites containing human remains. The potential for treatment activities to uncover human remains was examined in the Program EIR. This impact is within the scope of the PEIR because the treatment activities and intensity of ground disturbance are consistent with those analyzed in the PEIR. Additionally, consistent with the Program EIR, the project would comply with California Health and Safety Code Section 7050.5 and PRC Section 5097 in the event of a discovery. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project 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; therefore, the impact related to disturbance of human remains is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCE IMPACTS

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

4.5 BIOLOGICAL RESOURCES

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

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

Notes: LTS = less than significant; LTSM = less than significant with mitigation; NI = no impact; PSU = potentially significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

New Biological Resources Impacts: Would the treatment result in other impacts to biological resources that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of project-specific biological resources, including habitat and vegetation types, and special-status plants, special-status wildlife, and sensitive habitats (e.g., sensitive natural communities, wetlands) with potential to occur in the treatment areas. Habitat and vegetation types in the treatment areas were identified using data modeled by the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP). CAL FIRE FRAP vegetation data are classified according to California Wildlife Habitat Relationships (CWHR) system of habitat classification. The FRAP vegetation layer is developed from various data sets representing the best available land cover data for each region of the state. Data from these various sources are then converted to CWHR habitat types and merged into a single statewide vegetation/habitat layer. This layer was primarily used to identify the habitat and vegetation types present within the project area. The total acreage of each CWHR type in the project area is presented in Table 4.5-1. The vegetation types were verified or corrected in the field during reconnaissance surveys to the degree feasible.

Table 4.5-1 Mapped Habitat Types in the Project Area

Habitat Type[1]	Ecological Restoration (Acres)	Fuel Break (Acres)	Total (Acres
Herbaceous			
Annual Grassland	963.3	927.7	1,891.0
Grassland Total	**963.3**	**927.7**	**1,891.0**
Coniferous Forest			
Blue Oak-Foothill Pine	194.9	112.7	307.6
Closed-Cone Pine-Cypress	2.6		2.6
Juniper	55.8	12.4	68.2
Coniferous forest total	**253.3**	**125.1**	**378.4**
Developed			
Urban[2]	0.9	73.6	74.6
Developed total	**0.9**	**73.6**	**74.6**
Oak Woodlands			
Blue Oak Woodland	907.8	530.0	1,437.9
Coastal Oak Woodland	936.3	332.3	1,268.6
Montane Hardwood	239.6	106.6	346.2
Montane Hardwood-Conifer	61.0	4.4	65.3
Valley Oak Woodland		18.3	18.3
Oak Woodlands total	**2,144.7**	**991.5**	**3,136.2**
Other			
Eucalyptus	2.9	1.1	4.0
Other total	**2.9**	**1.1**	**4.0**
Riparian Woodland			
Valley Foothill Riparian	11.8	25.7	37.5
Riparian woodland total	**11.8**	**25.7**	**37.5**
Shrub/Scrub			
Chamise-Redshank Chaparral	870.7	239.8	1,110.5
Coastal Scrub	39.5	25.9	65.4
Mixed Chaparral	669.4	142.6	811.9
Shrubland total	**1,579.5**	**408.3**	**1,987.8**
All habitat types total	**4,956.6**	**2,552.9**	**7,509.5**

[1] Treatment would vary based on habitat type. A framework for treatment activities based on the habitat type is included in Attachment B.

[2] Most urban habitats would not be targeted for treatment; however, due to the scale of the habitat mapping, some areas mapped as urban may contain habitats that would be treated (e.g., forested areas close to urban development).

Source: CAL FIRE FRAP data, compiled by Ascent in 2022.

The treatment areas together encompass approximately 7,510 acres (Table 4.5-1) and range in elevation from approximately 469 to 3,847 feet above sea level. The project is located within the Central California Coast ecoregion. Vegetation/habitat types identified within the project area according to CAL FIRE FRAP data are listed in Table 4.5-1. Stream and freshwater pond habitats are present and are described below (see Impact BIO-4). Ultramafic soils (that may support rare plant species) are mapped along the northern half of Mount Diablo SP, overlapping with portions of proposed fuel breaks along Moses Rock Ridge, Deer Flat Road, Meridian Ridge Road, and the trails around Russelmann Park Road (NRCS 2019).

A list of special-status plant and wildlife species with potential to occur in the treatment areas was compiled by completing a review of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the 22 U.S. Geological Survey (USGS) quadrangles containing and surrounding the treatment areas (CNDDB 2022; CNPS 2022); US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool (USFWS 2022a); *Mount Diablo State Parks' 2006 Amphibian and Aquatic Reptile Study* (Cook and Shafer, 2007); *California State Parks 2004 Baseline Trapping Study Results for Alameda Whipsnake* (SBI 2004); Calflora occurrence data (Calflora 2022); Mount Diablo SP's Rare Plant List (CSP n.d.); and Appendix BIO-3 (Table 1a, Table 1b, and Table 19) in the CalVTP Program EIR (Volume II) for special-status plants and wildlife that could occur in the Central California Coast ecoregion. A list of sensitive natural communities with potential to occur in the treatment areas was compiled by assessing community composition during the reconnaissance surveys, completing a CNDDB search of the 22 USGS quadrangles surrounding the treatment areas (CNDDB 2022), and reviewing Table 3.6-3 (pages 3.6-25 through 3.6-27) in the CalVTP Program EIR (Volume II) for sensitive natural communities that could occur in the Central California Coast ecoregion in the habitat types mapped in the treatment areas.

Ascent biologists conducted reconnaissance surveys on October 10, 11, and 12, 2022, to identify and document sensitive resources (e.g., aquatic habitat, riparian habitat, sensitive natural communities) and to assess the suitability of habitat in the treatment areas for special-status plant and wildlife species. Vegetation and soil characteristics were evaluated, and incidental wildlife observations were recorded.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of surveys conducted, and habitat present within the treatment areas as assessed during reconnaissance surveys, a full list of special-status species with potential to occur in the vicinity of the proposed project was assembled (Attachment C). A total of 79 special-status plant and 77 special-status wildlife species were assessed; of these, a total of 26 special-status plant and 8 special-status wildlife species are known to occur, and 9 special-status plant and 24 special-status wildlife species were determined to have the potential to occur (Attachment B). California Rare Plant Rank (CRPR) List 4 plants that are listed in the Mount Diablo SP's Rare Plant List (CSP n.d.) are included in Attachment B and were analyzed here because these plants are of conservation concern to CSP. Species known or with potential to occur in the treatment areas are discussed in detail under Impact BIO-1 (special-status plants) and Impact BIO-2 (special-status wildlife).

IMPACT BIO-1

Initial and maintenance treatments could result in direct or indirect adverse effects on the 35 special-status plant species known or with potential to occur or with suitable habitat in the project area. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments for grassland and most forested communities because the same treatment activities would occur, and treatment would somewhat mimic the natural fire return interval. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth of competing vegetation, opens the tree canopy to allow more light penetration, or removes invasive competitors can be beneficial for some special-status plant populations; however, repeated treatments at too frequent intervals can have adverse effects on those same special-status plants. If retreatment occurs in chaparral and coastal sage scrub communities at frequencies outside the natural fire return interval, special-status plants associated with these community types could be adversely affected through habitat alteration that makes the habitat unsuitable for their growth and reproduction. Fire return intervals would be adjusted based on post-fire monitoring of vegetation communities and would range between 1 to 30 years depending on specific treatment objectives (treating invasive species, promoting native grasses) and avoidance of adverse effects from habitat alteration (Abrahamson 2014).

SPR BIO-7 would apply to all treatment activities, including maintenance treatments, and protocol-level surveys for special-status plants would be conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018, or current version) prior to implementing prescribed burning, mechanical treatment, manual treatment, and targeted ground application of herbicide treatments in any habitat potentially suitable for special-status plants. Pursuant to SPR BIO-7, surveys would not be

required for those special-status plants not listed under ESA or CESA, if the target special-status plant species is an herbaceous annual species, stump-sprouting species, or geophyte species, and the specific treatments may be carried out during the dormant season for that species or when the species has completed its annual life cycle, provided the treatment would not alter habitat in a way that would make it unsuitable for the special-status plants to reestablish following treatment, or destroy seedbanks, stumps, or roots, rhizomes, bulbs and other underground parts of special-status plants. However, this would require that treatments in habitat potentially suitable for these special-status plants be restricted to the dormant season for these species and to treatments that do not disturb below the soil surface (i.e., manual treatments, herbicide application, and prescribed burning) without prior knowledge of their presence, which may unnecessarily or infeasibly constrain treatment implementation. In this case, surveys could be conducted to determine presence or absence and, depending on the results, may provide greater flexibility with timing and types of treatments that may be implemented.

Twenty of the 35 special-status plant species that are known to or may occur within the project area are herbaceous annual species or geophytes, as indicated in Attachment B. Impacts on these species would be avoided by applying only treatment activities that do not kill or remove vegetation or disturb the soil below the surface (i.e., manual treatment, herbicide application, and prescribed burning) and carrying out these treatments only during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination would occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October–December (Levine et. al 2008). Treatment activities that could potentially kill or remove seeds, stumps, and underground root structures (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted in potential habitat for these species without prior implementation of SPR BIO-7 to determine if they are present. If treatments activities would not be limited to those that do not kill or remove vegetation or disturb the soil below the surface (e.g., manual treatments, herbicide application, and prescribed burning) or treatments cannot be completed in the dormant season and would be implemented during the growing period of annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified special-status plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below. Fifteen of the 35 special-status plant species that have potential to occur within the project area are perennial or moss species, which could not be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes; therefore, protocol-level surveys under SPR BIO-7 would be necessary to identify them prior to implementing treatment activities regardless of the timing of treatments.

Where protocol-level surveys are required and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, would be implemented to avoid loss of identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet would be established around the area occupied by the species within which prescribed burning, mechanical treatment, manual treatment, and herbicide application, would not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from the proposed treatment in the occupied habitat area. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects would need to be made in consultation with CDFW and/or USFWS, depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants, under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance measures or design alternatives to reduce impacts would be identified. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants would be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants would be maintained because treatment activities and maintenance treatments would be designed so that treatments, including follow-up maintenance treatments, maintain habitat function for the special-status plant species present.

Twenty-six special-status plant species – including Mount Diablo phacelia, woodland woollythreads, Hall's bush-mallow, serpentine leptosiphon, Brewer's western flax, and Diablo helianthella – have been identified previously and are known to occur within the project area. If surveys pursuant to SPR BIO-7 determine these species are still present, implementation of Mitigation Measure BIO-1b would be required to avoid loss of individual plants. For perennial species, this would require establishing a no-disturbance buffer around the area occupied by the 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 would generally be a minimum of 50 feet around special-status plant occurrences, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer would be sufficient to avoid loss of or damage to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. For the annual and geophytic species, treatments may be conducted within this buffer outside of the growing season (e.g., after species has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the underground parts of special-status plants or destroy the seedbank.

In addition, pursuant to SPR HYD-5, non-target vegetation and special-status species would be protected from herbicides. Only hand application would occur (no aerial spraying). Only herbicides labeled for use in aquatic environments would be used 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 would be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry. No terrestrial or aquatic herbicides would be applied within Watercourse and Lake Protection Zones (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 before herbicide application.

Mount Diablo Manzanita and Contra Costa Manzanita

Pursuant to Mitigation Measure BIO-1a and Mitigation Measure BIO-1b, impacts on special-status plants must be avoided unless it is determined that the plants would benefit from treatment and that habitat function would improve with implementation of the treatment. Mount Diablo (*Arctostaphylos auriculata*) and Contra Costa (*Arctostaphylos manzanita* ssp. *laevigata*) manzanita are special-status plant species with a CRPR of 1B.3 and 1B.2, respectively (see Attachment B), and both are known to occur in the project area. Contra costa manzanita is a subspecies of common manzanita (*Arctostaphylos manzanita*) and can be difficult to differentiate morphologically from common manzanita. For purposes of this discussion, it is assumed that chaparral communities in the project area that contain common manzanita may include Contra Costa manzanita. Prescribed burning treatments in chaparral habitats that contain these species are proposed and would specifically target Mount Diablo manzanita and common (and potentially Contra Costa) manzanita. Initial manual and mechanical treatment may be necessary in these areas prior to prescribed burn treatments to safely initiate broadcast burning and may consist of creating control lines or reducing fuel loads. Manual or mechanical treatments would not be used as the primary treatment method on Mount Diablo or Contra Costa manzanita. These species have been affected by heat scorch interacting with water stress and endophytic fungi (*Neofusicoccum* and related fungi), and are experiencing varying degrees of dieback and mortality, including a large dieback event that occurred in late 2020. Large patches of dead or dying Mount Diablo and common manzanita have been documented since this dieback event in the ecological restoration treatment areas (Swiecki and Bernhardt 2022) and were observed during the reconnaissance surveys conducted in October 2022.

Mount Diablo and common manzanita are obligate seeders, meaning that these species have no ability to resprout from the base of a dead stem and thus are entirely dependent on seed germination (Keeley 2008; Anacker et al. 2011). Individuals from common manzanita would typically die following even low severity fire but have seeds that require fire for adequate germination and seedling establishment. Plants take about 4 to 5 years to produce seed but may take longer (12 plus years) in areas of substantial postfire browsing of seedlings (Abrahamson 2014). Minimal fire effect information is available for Mount Diablo manzanita, but because this species is also an obligate seeder and co-occurs with common manzanita, it is assumed that Mount Diablo manzanita has a similar regeneration strategy as that of common manzanita. According to CAL FIRE mapping data, the most recent fire in a portion of the manzanita dieback area of the project area occurred in 1981 and a smaller portion (184 acres) was burned during the 2010 Curry fire (CAL FIRE 2022). The fire return interval for these species is 30 to 125 years with an average of 50 years. In the portions of this dieback area that have not had fire since 1981 or earlier, it is likely that individual Mount Diablo and common manzanita shrubs that may be growing in this area are senescent and new seed germination has likely not occurred in decades. Therefore, prescribed fire conducted in areas within the normal fire return interval (i.e., excluding areas within the Curry Fire perimeter) for Mount Diablo and common manzanita, could benefit these

species by stimulating seed germination to help sustain populations in the future. Additional prescribed burn maintenance treatments in known Mount Diablo and common manzanita areas would not occur for a minimum of 30 years because the normal fire return interval for these species is a minimum of 30 years.

Broadcast burning is planned to be the primary treatment activity in areas containing Mount Diablo manzanita and common manzanita (where common manzanita could potentially be the subspecies Contra Costa manzanita). Broadcast burn methods within the species' fire return interval are expected to benefit these populations, because burns would facilitate the natural reproductive strategy of these obligate seeders and clear out diseased individuals.

In some areas with heavy existing fuel loads, to make fuel conditions safe for broadcast burning, initial treatment would include manual or mechanical treatment followed by pile burning to process the biomass. Although there is some uncertainty regarding the effects of pile burning on the underground seed bank of manzanita chaparral habitat areas, the seeds of common and Mount Diablo manzanita could potentially be damaged by pile burn treatment. While research on the effects of pile burning on seed banks in chaparral ecosystems is limited, in pine forest ecosystems, seeds have been documented to lose viability within areas of pile burning (Korb et. al., 2004). The seed bank beneath a pile burn would be exposed to high temperatures for relatively long durations during burning, compared to a broadcast burn. Common or Mount Diablo manzanita seeds in the seed bank under burn piles may reach temperatures that exceed the lethal threshold of 140 degrees (Abrahamson 2014). Therefore, strategies to minimize damage to the seed bank beneath burn piles would be employed. These strategies would be designed by a qualified RPF, biologist, or botanist based on site-specific conditions and may include placing burn piles away from manzanita individuals (i.e., 50 feet or greater), placing burn piles in previously disturbed areas (e.g., roads and trails), minimizing the number of burn piles, burning piles in the same location, and extinguishing burn piles after 8 hours of burning (Busse et. al., 2013). To the extent feasible, CSP would implement post-treatment monitoring to document manzanita survival and regeneration from the seed bank in areas near the burn piles, and if monitoring shows that rare manzanitas are not regenerating as expected, CSP would consider adaptive management changes to treatments.

With the implementation of these strategies to avoid impacts on the seed bank, adverse impacts on the seed bank would be minimized. Additionally, if loss of viability in the seed bank occurs, it would be localized in a very small proportion of the habitat in the state park. Recognizing the plant community's reproductive life history and the presence of diseased and dead manzanita in these stands, the implementation of necessary pile burning to facilitate broadcast burning would be reasonably expected to have beneficial effects to common and Mount Diablo manzanita.

The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR. This impact on special-status plants is within the scope of the Program EIR because habitat characteristics and the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing habitat conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special-status plants is also the same, as described above. SPRs that apply to the project include SPRs AQ-3, AQ-4, BIO-1, BIO-2, BIO-7, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, and HYD-5. Biological resource mitigation measures that apply to project impacts include Mitigation Measures BIO-1a and BIO-1b. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-2

Initial and maintenance treatments could result in direct or indirect adverse effects on 32 special-status wildlife species and habitat suitable for these species within the project area, as described in the following sections. In the following sections, two types of species-specific surveys are described: protocol-level surveys and pre-activity surveys. Protocol-level surveys refer to species-specific surveys which follow an established protocol, usually approved by USFWS or CDFW. Protocol-level survey may take more than one consecutive season to complete and are conducted to determine if a species is present or absent in an area. If protocol surveys are completed and the species is not

detected, further mitigation is not required for that species. If protocol surveys are not conducted but habitat suitable for the species is present, then presence of the species can generally be assumed. Pre-activity surveys may be recommended in some cases. Pre-activity surveys are typically conducted immediately prior to initiation of treatment activities, often the same day as work activities. Pre-activity surveys (sometimes called pre-activity clearance surveys or pre-treatment surveys) are conducted when the species is already known or presumed to be present and are conducted by a qualified RPF or biologist to identify any special-status wildlife individuals present in the project area. If any special-status species are located during pre-activity surveys, species-specific guidelines will be followed as described in Mitigation Measures BIO-2a and BIO-2b. Protocol-level surveys can be used to inform the need for further mitigation, while pre-activity surveys are a requirement of some species' mitigation. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities would occur.

Alameda Whipsnake

Alameda whipsnake is endemic to Alameda and Contra Costa Counties. Habitat suitable for Alameda whipsnake is concentrated around mosaics of chaparral communities and extends into adjacent grasslands, woodlands, and open woodland habitat in these counties (Swaim and McGinnis 1992). Alameda whipsnake has frequently been documented occurring up to 1 mile from scrub communities and up to 4 miles from scrub as a maximum distance (Swaim 1994; Alvarez et al. 2005). Swaim (1994) found most adult Alameda whipsnakes had activity centers or core areas (i.e., areas of concentrated use with spatial and/or temporal overlap of multiple individuals). Habitat in core areas primarily consists of scrub communities (e.g., coastal scrub, coyote brush scrub, chaparral) with patch sizes as small as 0.5 acre supporting breeding populations (SBI 2012). Core areas frequently included adjacent grassland and open woodlands (Swaim and McGinnis 1992; USFWS 2006). Foraging and dispersal habitat includes woodland and grassland that is contiguous with scrub habitat (USFWS 2006). Rock outcrops and talus likely enhance habitat for Alameda whipsnake because they provide secure cover and promote abundant lizard prey populations. Core areas most commonly occur on northeast, southeast, south, and southwest facing slopes (Swaim 1994; Swaim and McGinnis 1992). Closed canopy tree stands dominated by nonnative trees such as eucalyptus and Monterey pine are considered degraded or unsuitable habitat (Swaim and McGinnis 1992).

The current population of Alameda whipsnake across Alameda and Contra Costa Counties is highly fragmented. The Mount Diablo population is likely somewhat isolated from surrounding populations due to physical barriers such as highways and development. Generally, the species is highly mobile and able to traverse less suitable or unsuitable habitats while moving between patches of high-quality habitat in their home range.

Alameda whipsnake is semiarboreal and can climb into the tops of dense shrubs and into trees to forage and thermoregulate. Adult Alameda whipsnake have a bimodal seasonal activity pattern, with a peak during the spring mating season and a smaller peak during the late summer and early fall (Swaim and McGinnis 1992; USFWS 2011). During the winter (generally November through February or March), Alameda whipsnake typically retreats into burrows, rock outcrops, or similar features, although short above-ground movements may still occur (USFWS 2000). Alameda whipsnake emerge in late February or March depending on weather conditions (Swaim and McGinnis 1992). Courtship and mating occur from late March through mid-June. During the courtship period, males move extensively, while females appear to remain at or near their winter retreat, where mating occurs. Alameda whipsnake are known to lay eggs in mammal burrows in grassland habitat with scattered scrub cover from April through June, and young emerge independent from adults (USFWS 2002a). Young appear in late summer and fall, and hatchlings have been observed above ground from August through November (Swaim and McGinnis 1992).

Alameda whipsnake is known to occur in portions of the project area (SBI 2004), and suitable core, dispersal, and foraging habitat for this species may be present in all treatment areas. Because Alameda whipsnake may travel up to 4 miles from patches of scrub, and because scrub core areas are widely dispersed throughout the project area, the entire project area may qualify as either core, dispersal, or foraging habitat for Alameda whipsnake. There are 22 total occurrences of Alameda whipsnake recorded within Mount Diablo SP (CNDDB 2022), some of which overlap with ecological restoration and fuel break treatment areas in the northern, eastern, and southern portions of the proposed project area (CNDDB 2022). These occurrences were documented from 1972 through 2004 (CNDDB 2022). CSP conducted Alameda whipsnake surveys throughout the southern portions of the project area in 2003 and 2004 (SBI

2004). This study by Swaim Biological found a large population of Alameda whipsnake relative to other snakes during their trapping effort, potentially indicating a healthy breeding population for the species. The study also reported that prescribed burns conducted in Mount Diablo SP would be expected to return the area to a more natural fire return interval and would benefit reptiles including Alameda whipsnake, which is adapted to frequent wildfire (SBI 2004).

Alameda whipsnake is threated primarily by habitat loss and fragmentation. The majority of this species' historic range is developed and has been fragmented by highways and residential development. In addition, the species range has been severely adversely affected by fire suppression, which has changed the distribution of chaparral, woodland, and grassland, and led to more closed-canopy chaparral that is unsuitable for whipsnake basking and thermoregulation (USFWS 2011). Alameda whipsnake in the treatment areas may encounter occasional dispersal barriers moving throughout the park or adjacent regional parks where habitat is fragmented by minimally traversed recreational roads and trails. However, the population of Alameda whipsnake in the project area is unlikely to disperse to separate population units because this population is fragmented from nearby populations by I-680, SR 24, and I-580 and associated residential development.

If present, Alameda whipsnake could be disturbed during initial treatment or maintenance activities, which could potentially result in the disruption of essential behavior patterns (e.g., breeding, feeding, sheltering) to the extent that injury or mortality occurs. Alameda whipsnake could be inadvertently injured or killed by heavy machinery, personnel, vehicles, prescribed broadcast burns, and pile burning (if piles are placed on or near burrows). Mechanical treatment and prescribed burning activities could result in direct loss of individuals if Alameda whipsnake are foraging or dispersing through upland habitat or seeking refuge in mammal burrows.

Herbicide application treatments would not adversely affect Alameda whipsnake, because of the targeted, hand-applied methods. Personnel implementing herbicide application treatments would conduct these activities on foot, and the likelihood of a whipsnake or burrow being inadvertently crushed or otherwise destroyed by personnel would be very low.

Vehicles used for manual and herbicide application activities have the potential to crush individual snakes that are dispersing along roads; and, if vehicles are driven over areas containing mammal burrows, burrow collapse may result in injury or mortality of Alameda whipsnake using burrows for refuge. Additionally, any work activities that may result in collapse of mammal burrows between April and November occurring in suitable habitat for Alameda whipsnake egg-laying (grassland with scattered shrubs [USFWS 2002a]) may result in crushing of Alameda whipsnake eggs. Adult Alameda whipsnake foraging or dispersing throughout a project area would likely flee from workers on foot conducting manual and targeted ground application of herbicide treatments. The potential for initial treatment activities and maintenance treatments to result in adverse effects on Alameda whipsnake was examined in the Program EIR.

Indirect beneficial effects in the form of improved native habitat conditions and reduced severity of wildfire would result from the proposed restoration of chaparral and coastal scrub habitats in the project area. Many chamise chaparral habitat areas in the project area currently contain nearly 100 percent canopy cover. Project implementation could enhance Alameda whipsnake habitat where treatments target patches of extremely dense vegetation and where chaparral species are impaired due to drought stress. Scrub habitat under these conditions would be selectively treated to maintain chaparral cover at reduced densities that allow for increased sunlight penetration. Alameda whipsnake is documented using open stands of scrub habitat characterized by less than 75 percent canopy cover (Swaim and McGinnis 1992, Swaim 1994); therefore, selective thinning of extremely dense scrub areas would likely improve overall habitat quality. Treatment may also enhance Alameda whipsnake foraging and dispersal habitat within isolated patches of grassland and oak-bay woodland habitats that are currently adjacent to nonnative scrub or extremely dense scrub habitat. As scrub habitat is thinned and canopy cover is reduced, or nonnative scrub species are removed, these scrub habitats would become more suitable for Alameda whipsnake. Accordingly, the potential for adjacent stands of grassland and woodland to function as suitable dispersal and foraging habitat for Alameda whipsnake is expected to increase. In addition, vegetation treatment that reduces the occurrence of catastrophic wildfires would benefit Alameda whipsnake because large, hot wildfires can kill individuals and may adversely affect the function of the scrub habitat (USFWS 2002a).

Because Alameda whipsnake may be present over relatively long distances from scrub habitat in the project area (i.e., up to approximately 1 mile), it is unlikely that all habitat potentially suitable for the species can be clearly avoided pursuant to SPR BIO-1. Additionally, scrub habitat in the project area has experienced many years of fire suppression, leading to the accumulation of dry, decadent material that creates a high fire risk, and avoiding these areas would not likely be feasible while also achieving project wildfire risk reduction goals. As a result, SPR BIO-10 would apply, which requires focused or protocol-level surveys by a qualified RPF or biologist within areas containing habitat suitable for the species before vegetation removal or treatment activities, or alternatively, that presence of the species is assumed. Due to the ecology of this species, Alameda whipsnake is unlikely to be observed during focused visual encounter surveys. Mount Diablo SP has conducted trapping efforts throughout the park, and Alameda whipsnake are known to be present. Therefore, presence of this species is assumed within all habitat suitable for Alameda whipsnake in the project area.

Within all habitat suitable for Alameda whipsnake in the project area, Mitigation Measure BIO-2a would be implemented. This mitigation measure requires that mortality or disturbance of individuals be avoided, and habitat function is maintained. Avoidance strategies that would be implemented under Mitigation Measure BIO-2a are adapted from previous methods developed for the East Bay Regional Park District (East Bay Parks) Federal Emergency Management Agency (FEMA) Fuels Reduction project, which has operated from 2016 through the present without a single known Alameda whipsnake take (i.e., injury, mortality, substantial modification of habitat) (EBRPD 2009, EBRPD 2019, EBRPD 2020, EBRPD 2021). Avoidance measures required under Mitigation Measure BIO-2a have also been adapted from the techniques developed by qualified RPFs or biologists from East Bay Parks. These include requirements for a pre-activity survey prior to manual, mechanical, and prescribed burning activities; presence of a biological monitor (with authorization of funding); regular equipment checks; seasonal restrictions for heavy equipment (November 1 through March 31); treatment temperature restrictions in habitat suitable for Alameda whipsnake; responsible debris management; and safe pile burning; and requirements to treat understory vegetation first in forested environments. East Bay Parks' record of mitigation implementation of these techniques since 2016 with the absence of documented take provide substantial evidence that the proposed avoidance measures under Mitigation Measure BIO-2a would be reasonably expected to continue to prevent injury, mortality, or substantial disturbance of Alameda whipsnake.

Habitat function for Alameda whipsnake would be maintained because implementation of SPRs, mitigation measures, and project retention standards would result in retention of habitat features important to the species. Implementation of SPR BIO-3 requires that sensitive natural communities are surveyed for and mapped prior to implementation, and SPR BIO-4 requires that riparian areas are designed to maintain habitat function. SPR BIO-5 requires that project activities avoid type conversion of chaparral and coastal sage scrub habitat. While chaparral is common throughout the project area, coastal sage scrub was not observed in the reconnaissance survey, but it has the potential to occur in the area, and if it is present, it would qualify as core habitat for Alameda whipsnake. Because coastal sage scrub and chaparral serve as important habitat for whipsnake, compliance with SPR BIO-5 would maintain habitat function for Alameda whipsnake in these habitat types. This SPR includes retention of a minimum of 35 percent relative cover of coastal sage scrub and chaparral habitat to prevent type conversion in ecological restoration treatments, and no ecological restoration treatments would occur in coastal sage scrub and chaparral habitats that are within their natural fire return interval unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved.

Studies on Alameda whipsnake habitat use demonstrate that the species is more likely to be found in areas where shrub canopy is characterized as open, or less than 75 percent cover, and they are less likely to use areas with 90 percent canopy cover or greater (Swaim 1994, Swaim and McGInnis 1992). Alameda whipsnake has been shown to avoid areas with dense blackberry cover (Van Dam, pers. comm., 2022). Treatments in woodland environments would remove ladder fuels, and Himalayan blackberry (*Rubus spp.*) is a dominant ladder fuel in oak woodlands throughout the project area. The post-treatment goals to create a fire-resistant mosaic of grassland, chaparral shrub islands, and understory clearance in oak woodlands would support improved sunlight penetration for reptile thermoregulation and likely result in increased habitat access for Alameda whipsnake use.

Because Alameda whipsnake presence is assumed within all suitable habitat types, Mitigation Measure BIO-2a is required for all treatment activities within scrub and adjacent grassland and suitable woodland. Measures to maintain

habitat function required by Mitigation Measure BIO-2a include the retention of "shrub islands" in shrub habitat suitable for Alameda whipsnake. USFWS defines "core" habitat areas used by Alameda whipsnake as suitable vegetation patches that are at least 0.5 acre in size, or 0.2 acre in size but within 50 feet of another patch of shrubs at least 0.5 acre in size (USFWS 2002a; USFWS 2011). East Bay Parks has previously used these general guidelines to reduce fuel in chaparral habitat while retaining "shrub islands" to maintain habitat function for whipsnake. In addition to considering the size of scrub patches, vegetation removal activities would retain patches of coyote brush scrub, coastal scrub, and chaparral in irregular, oblong shapes that maintain a natural looking condition on the landscape.

Implementation of Mitigation Measure BIO-2a would maintain habitat function for Alameda whipsnake by creating shrub islands, retaining a mosaic of shrub understory, and protecting key refugia habitat features for Alameda whipsnake such as rocky outcrops and mammal burrows. Habitat suitable for Alameda whipsnake in Mount Diablo SP has experienced long-term fire suppression and is outside of its natural fire regime (USFWS 2002a), and it is anticipated that careful, selective thinning of shrub habitat may increase sunlight penetration and thereby improve the quality of breeding, basking, and foraging habitat for this species post-treatment. Pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities including manzanita chaparral, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

Mitigation Measure BIO-2a requires CSP to consult with CDFW and USFWS for technical input on their proposed measures to avoid injury to or mortality of Alameda whipsnake and their determination for Alameda whipsnake habitat function maintenance. On May 25, 2023, CSP sent a notification to Ryan Olah at USFWS describing project treatments, SPRs, and mitigation measures that would be implemented to maintain habitat function and avoid take of Alameda whipsnake. Ryan Olah responded on July 17, 2023 confirming that USFWS had reviewed the project and did not have any comments regarding the project. On May 25, 2023, CSP sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to Alameda whipsnake and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Katanja Waldner of CDFW issued a response on July 14, 2023. CDFW indicated in their response that take avoidance for Alameda whipsnake cannot be assumed and recommended a permit to authorize incidental take. Discussion regarding the approach to secure take authorization is ongoing, and any changes to the project description, SPRs, or mitigation measures that are determined during further discussion between CSP and CDFW will be added to this PSA as a memorandum to retain in project files.

Christina McLain (Environmental Planner) and Gina Benigno (Natural Resources Manager) at CSP followed up with Katanja Waldner of CDFW and determined that manual project activities may be implemented in Alameda whipsnake habitat prior to obtaining incidental take coverage. Manual activities may include the use of power tools such as weed whackers and chainsaws; however, any treated area would be cleared by a biological monitor prior to implementation. Chippers can be used but should abide by restrictions outlined in the Program EIR for chip depth, percent cover, and avoiding rocky outcroppings. Pile burning in Alameda whipsnake habitat is acceptable prior to obtaining take coverage, and piles should be disturbed or dismantled prior to ignitions to clear out any potential snakes taking refuge. Broadcast burning can be implemented in Alameda whipsnake foraging habitat if burning can be accomplished at a slow rate of spread to allow for dispersal of snakes. These changes were incorporated into the MMRP.

This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

California Red-Legged Frog

California red-legged frog is endemic to California and Baja California, Mexico. This species has been extirpated from 70 percent of its historic range and is threatened by habitat loss, fragmentation of extant populations, water contamination, and predation from invasive species (USFWS 2002b). Adult and juvenile California red-legged frogs are known to travel through upland habitat (e.g., riparian, woodland, grassland) to move between breeding and nonbreeding sites (e.g., other ponds, deep pools in streams, moist and cool riparian understory, burrows) for access to refugia and foraging habitat, or to disperse to new breeding locations. Movements through upland habitat are

known to occur up to approximately 1 mile over the course of a wet season (Bulger et al. 2003). During migration, California red-legged frog may travel longer distances from aquatic habitat and typically travel in straight lines irrespective of vegetation types; individuals have been documented to move more than 1.7 mile between aquatic habitat sites (Bulger et al. 2003). Although individuals have been documented moving up to 1.7 mile from breeding habitat, studies have demonstrated that California red-legged frog remains very close to breeding ponds during the nonbreeding season and typically do not move more than a few hundred feet into upland habitats (Bulger et al. 2003; Fellers and Kleeman 2007). California red-legged frog generally make overland movements (i.e., dispersal, migration, foraging) during the wet season (i.e., October to May) and these movement are typically made at night (Bulger et al. 2003). Treatment activities would be limited to daytime hours (i.e., 7:00 a.m. to 5:00 p.m., typically).

Twelve occurrences of California red-legged frog have been documented in Mount Diablo SP in or adjacent to the project area (CNDDB 2022), and at least 42 adult California red-legged frog individuals were observed in Falcon Pond in the southeast portion of the project area during the reconnaissance survey in October 2022. California red-legged frog has been documented in many waterbodies in the project area, including Alamo Creek, Marsh Creek, unnamed ponds in Clayton Ranch area, Green Valley Creek, Mitchell Creek, Galindo Creek, unnamed tributaries to San Ramon creek, Bruce Lee Reservoir, unnamed tributaries to Little Pine Creek, Hidden Pond (between Manzanita Springs Creek and Alder Creek), Sycamore Creek, Peacock Creek, and Pine Pond (CNDDB 2022). Ponds and flooded wetlands in the project area provide habitat suitable for breeding, and the surrounding area is suitable for foraging and refuge. Some portions of the park along the highest elevation fuel break treatment areas contain very few aquatic resources, and these areas are outside of the known dispersal distance from breeding habitat (1.7 mile) for adult California red-legged frog. With the exception of these very high elevation dry areas near the peak of Mount Diablo, most of the project area may serve as suitable breeding, dispersal, or foraging habitat for this species. Additionally, the western and southern edges of the project area overlap with USFWS-designated California red-legged frog critical habitat.

Glyphosate, triclopyr, and imazapyr are herbicides subject to the California Red-Legged Frog Injunction (Center for Biological Diversity v. U.S. EPA [2006] Case No. 02-1580-JSW), and therefore, specific application requirements apply in areas subject to the injunction. The application of these herbicides is prohibited within 60 feet of California red-legged frog aquatic breeding critical habitat or non-breeding aquatic critical habitat within critical habitat areas. Portions of the treatment areas along South Gate Road south of Rock City and North Gate Road along Pine Canyon north to Arroyo Cerro Del overlap mapped critical habitat sections of the herbicide injunction areas; therefore, this injunction applies to these portions of the project.

Treatment activities including manual treatment, mechanical treatment, herbicide use, and prescribed burning activities may adversely affect this species through direct loss, injury, or other disturbance of individuals if the species is present in treatment areas; treatments could also degrade habitat function for California red-legged frog. Mechanical treatment and prescribed burning activities could result in direct loss of individuals if California red-legged frogs are dispersing or seeking refuge ahead of equipment or prescribed burn. Mechanical, manual, prescribed burn, and targeted ground application of herbicide treatments occurring upslope from waterways suitable for California red-legged frog may result in erosion or addition of hazardous chemicals into the water, which may degrade habitat function of the waterway for California red-legged frog breeding or foraging. Workers conducting manual treatment activities and herbicide application on foot are relatively unlikely to cause injury, mortality, or substantial disturbance to individual California red-legged frog because they move relatively slowly throughout the project area. However, vehicles associated with these treatment activities have the potential to crush individual frogs that may take refuge under vehicles; and, if vehicles are driven over areas containing mammal burrows, burrow collapse may result in injury or mortality of any frogs using burrows for refuge. The potential for treatment activities to result in adverse effects on California red-legged frog was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on California red-legged frog will be clearly avoided by physically avoiding the habitat suitable for the species, or by conducting treatments outside of the season when California red-legged frog is present, then no further action would be required. However, habitat suitable for California red-legged frog upland dispersal is widespread throughout the project area, and habitat suitable for dispersal is only absent near the peak of Mount Diablo where suitable breeding habitat is greater than 1.7 mile away.

SPRs that protect aquatic and riparian habitat where California red-legged frog is most likely to be present would be implemented to prevent adverse effects on frogs in breeding habitat.

WLPZs ranging from 50 to 150 feet, based on slope, would be implemented adjacent to all Class I and Class II streams within the project area per SPR HYD-4, which prohibits driving heavy equipment, equipment fueling, placement of burn piles, and fire ignition within these buffers, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III (e.g., ephemeral swales) and Class IV (e.g., drainage canals, irrigation ditches) watercourses. In addition, SPR HYD-4 requires the implementation of equipment limitation zones (ELZ) designated 25 to 50 feet adjacent to Class III and Class IV watercourses, that treatment activities within the WLPZ retain at least 75 percent surface cover, that no equipment be driven on WLPZs except over existing roads when the tire tracks would remain dry, and that no fire ignition or burn piles would be located within the WLPZ. SPR HYD-1 requires that project activities comply with local water quality regulations. Pursuant to Mitigation Measure BIO-4, wetland delineations would be conducted to determine if other wetland, spring, and seep habitats are present within a treatment area; and, where aquatic habitats are delineated, no-disturbance buffers of at least 25 feet would be implemented.

Pursuant to SPR GEO-1, mechanical treatments and herbicide application would be suspended during rainfall, if soils are saturated, or if soils are wet enough to mobilize herbicides or be compacted by mechanical activities. Further, mechanical treatments may not resume until precipitation stops and soils are no longer saturated or very wet. This would avoid the implementation of mechanical and targeted ground application of herbicide treatments during the sensitive period of the species life history (i.e., the period when frogs could be moving through most of the project area). Implementation of SPR GEO-1 would avoid work when California red-legged frog may be moving within most of the project area during the wet season. Additionally, implementation of SPR HYD-4 and SPR BIO-4 would reduce potential impacts on California red-legged frog in aquatic habitat and the associated WLPZs. However, the species may be present within upland habitat more than 150 feet from aquatic habitat in the project area year-round. In addition, manual activities implemented within the WLPZs may result in adverse effects on California red-legged frog. Implementation of SPRs HAZ-5 and HAZ-6 require that herbicides and other hazardous materials are handled safely and are not allowed to enter waterways including those suitable for California red-legged frog breeding and dispersal habitat. However, all adverse effects cannot be clearly avoided, and SPR BIO-10 would apply.

Pursuant to SPR BIO-10, protocol surveys for California red-legged frog would be conducted following the guidelines included in the *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005) prior to implementation of prescribed burning, mechanical treatments, herbicide application, and manual treatments, or presence of California red-legged frog within the project area would be assumed and Mitigation Measure BIO-2a would be required. If protocol surveys are conducted and California red-legged frog is not detected, then no further mitigation for the species would be required.

If California red-legged frog is detected during surveys or assumed to be present, under Mitigation Measure BIO-2a, pre-activity surveys and biological monitoring (with authorization of funding) for treatment activities would be required year-round within breeding, upland, and dispersal habitat. While protocol-level surveys determine whether the species is generally present or absent, pre-activity surveys are conducted after the species has been determined or assumed present. Pre-activity surveys occur within 7 days prior to treatment activities and allow the RPF or biologist to determine if any of the species is present in the treatment area, and if it is present, to provide recommendations for impact avoidance. Any manual treatment implemented within the mapped WLPZ would be preceded by pre-activity survey no more than 7 days prior to operations. Any large woody debris exceeding 12 inches in diameter would be evaluated prior to moving. If a California red-legged frog is observed on-site during treatment activities, a no-disturbance buffer of 100 feet would be implemented around the individual unless it is determined by the qualified RPF or biological technician that a different sized buffer is appropriate to avoid injury or mortality. If California red-legged frog is found during pre-activity surveys or enters the project area during treatment activities, the specific habitat features used by the frog when detected will be evaluated by a qualified RPF or biologist for habitat retention in a manner consistent with project objectives, if feasible. All treatment activities would cease within the buffer until the animal leaves on its own. Additionally, all mechanical equipment, including track chippers, and targeted ground application of herbicide treatments would shut down for: 1) 24 hours following any precipitation

event of 0.20 inch to less than 1 inch, 2) 48 hours following any precipitation event 1 inch to less than 2 inches, and 3) 72 hours following any precipitation event greater or equal to 2 inches (Mitigation Measure BIO-2a).

Habitat function for California red-legged frog would be maintained because treatments would not remove suitable aquatic breeding habitats, and implementation of SPRs and mitigation measures would result in retention of upland and riparian habitat features important to the species. Treatment activities in ecological restoration treatment areas would retain most live trees (i.e., oaks, hardwoods) greater than 6 inches dbh (except for hazard trees), and downed logs and standing snags that do not pose a health or safety hazard would be selectively retained to provide wildlife habitat. When masticating in ecological restoration treatment areas, operators would minimize disturbance to down wood where feasible, only moving large pieces of woody debris when necessary to reduce fire behavior or gain access to larger portions of treatment areas. Forest understory vegetation would be maintained in ecological restoration areas consistent with the understory descriptions in the Manual of California Vegetation (Sawyer et al. 2009). Residual masticated or chipped material would be no more than 2 inches in depth. Chips would be placed on open areas where they would not impede wildlife use of refugia, such as rock piles and mammal burrows, and would not cover more than 20 percent of a given treatment area (see "Treatment Description," Section 2.1.2). Pursuant to SPR HYD-4, 75 percent surface cover in WLPZs would be retained. Additionally, SPR BIO-4 requires retention of 75 percent overstory and 50 percent understory canopy of native vegetation within riparian habitat and would be limited to removal of uncharacteristic or undesired fuel loads (e.g., dead or dying vegetation, invasive plants). Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

Because this species is listed under ESA, the project proponent would contact USFWS to seek technical input on their proposed avoidance measures and their determination that habitat function would be maintained for California red-legged frog. Mitigation Measure BIO-2a requires the project proponent to consult with USFWS for technical input on their proposed measures to avoid injury to or mortality of California red-legged frog and their determination for California red-legged frog habitat function maintenance. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

On May 25, 2023, CSP sent a notification to Ryan Olah at USFWS describing the project treatments, SPRs, and mitigation measures that would be implemented to maintain habitat function and avoid take of California red-legged frog. Ryan Olah responded on July 17, 2023, confirming that USFWS had reviewed the project and did not have any comments regarding the project. No refinements to the project description resulted from the consultation regarding California red-legged frog.

California Tiger Salamander

California tiger salamander has been observed by Mount Diablo SP staff in ponds on the Save Mount Diablo property in the southeastern portion of the project area, and habitat suitable for breeding, foraging, and upland dispersal occurs in grasslands and oak woodlands throughout the project area (McClain, pers. comm., 2022). This species breeds in ponds and vernal pools that are wet for at least 10 weeks of the wet season, extending into April (CDFW 2003). Although California tiger salamander is adapted to breed in vernal pools and ponds, livestock ponds and modified permanent ponds are also frequently used (USFWS 2017). Optimum breeding habitat is ephemeral and dries down for at least 30 days of the year, which prevents predators such as bullfrogs and non-native fish from establishing in breeding ponds. California tiger salamander is not known to breed in streams or rivers, but occasionally have been documented breeding in seasonal wetlands adjacent to streams or rivers that do not contain predatory fish or breeding bullfrog populations (USFWS 2017). California tiger salamander spends most of its adult life stage underground in upland small mammal burrows typically in grassland and woodland habitat (USFWS 2017). During the rainy season, typically between November and April, California tiger salamander adults migrate to ponds and vernal pools to mate and breed. Larvae spend 3 to 6 months in their breeding ponds, before metamorphosing into adults and entering the surrounding terrestrial habitat in search of burrows. Migration of these young salamanders from ponds to the terrestrial environment typically occurs between May and July. California tiger salamander spends the non-breeding season in burrows within upland habitat (grasslands and oak woodlands) up to

1.3 mile from breeding ponds (USFWS 2017, CDFW 2003). Adult California tiger salamander may be found year-round in upland refugia habitat, and depending on rain conditions, may emerge to breed only occasionally on rainy nights (CDFW 2003).

Breeding habitat potentially suitable for California tiger salamander is present in the southeast portion of the project area. Additionally, ponds in the project area along the north and west sides of the project area including Falcon Pond may provide habitat suitable to support a breeding population. California tiger salamander may use ponds suitable for breeding and upland aquatic, grassland, oak woodland, and savannah habitat within 1.3 mile of ponds suitable for breeding in the southeast, north, and west sides of Mount Diablo, but the fuel break treatment areas proposed near the peak of Mount Diablo are anticipated to be outside of the potential dispersal distance for this species.

If present, California tiger salamander could be inadvertently injured or killed by heavy machinery, personnel, vehicles, prescribed broadcast burns, and pile burning (if piles are placed on or near burrows). Workers conducting manual treatment activities and herbicide application on foot are relatively unlikely to cause injury, mortality, or substantial disturbance to individual California tiger salamanders because they move relatively slowly throughout the project area. However, vehicles used for these treatment activities have the potential to crush individual salamanders that may take refuge under vehicles and, if vehicles are driven over areas containing mammal burrows, burrow collapse may result in injury or mortality of any salamanders using burrows for refuge. The potential for initial treatment activities and maintenance treatments to result in adverse effects on California tiger salamander was examined in the Program EIR.

As discussed above, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV streams pursuant to SPR HYD-4Wetland delineations would be conducted to determine if other wetland habitat suitable for California tiger salamander breeding is present within a treatment area, and where aquatic habitats are delineated, no-disturbance buffers of at least 25 feet would be implemented (refer to Impact BIO-4 below). However, these measures may not avoid impacts on California tiger salamander when they are present outside of established WLPZs or buffers (e.g., greater than 150 feet from aquatic habitat), are present within ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), or if non-mechanical treatment activities implemented within the WLPZ resulted in injury or mortality of California tiger salamander. Additionally, SPR HYD-5 requires that herbicides are mixed in areas where there is no potential of a spill reaching a waterway, and no terrestrial or aquatic herbicides would be applied within the WLPZ, and SPR HYD-1 requires that project activities comply with local water quality regulations. Per SPR BIO-1, if it is determined that adverse effects on California tiger salamander will be clearly avoided by physically avoiding the habitat suitable for these species, then no additional measures would be required. Breeding ponds may be avoided pursuant to SPR HYD-4, however, because California tiger salamander spends half of the year in upland habitat and may be present large distances (i.e., up to 1.3 mile) from breeding pools throughout the grassland and oak woodland, California tiger salamander in upland habitat cannot be fully avoided. As a result, SPR BIO-10 would apply, and a qualified RPF or qualified biological technician would conduct protocol-level surveys for California tiger salamander pursuant to the *Interim Guidance of Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (CDFW 2003) within habitat potentially suitable for the species, or presence of the species would be assumed. Two consecutive seasons of negative larval surveys and negative upland drift fence surveys are recommended to support a finding of negative presence of California tiger salamander (CDFW 2003). If 2 years of protocol-level surveys are conducted and California tiger salamander is not detected within the project area, then no mitigation for the species would be required. If protocol-level surveys are determined to be infeasible by CSP, presence of California tiger salamander may be assumed within aquatic habitats (e.g., ponds) suitable for breeding and suitable upland habitat within 1.3 mile of these aquatic features.

If California tiger salamander is detected during protocol-level surveys or assumed to be present, then Mitigation Measure BIO-2a would be implemented for all treatment activities within habitat suitable for breeding and upland dispersal (oak woodland and grassland areas with mammal burrows within 1.3 mile of breeding ponds). Mitigation Measure BIO-2a would require daily pre-activity surveys for California tiger salamander in habitat suitable for the species in the proposed project area for manual, mechanical, herbicide application, and prescribed burning treatment

activities. Mastication activities would be restricted to equipment staged in previously compacted areas (such as established roads and trails), and mechanical equipment that may cause burrows to collapse would be prohibited within 50 feet of mammal burrows in upland and dispersal habitat. Additionally, burn piles would not be placed on mammal burrows in upland habitat that may serve as California tiger salamander refuge habitat.

Habitat function for California tiger salamander would be maintained because implementation of SPRs, mitigation measures, and protective measures would result in retention of habitat features important to the species. As described above, treatment activities and maintenance treatments would not occur within aquatic habitat, and pursuant to SPR HYD-4 no treatment would occur within 300 feet of aquatic habitat suitable for California tiger salamander, including stock ponds and vernal pools. Treatment activities would retain most live trees (i.e., conifers, hardwoods) greater than 6 inches dbh (except for hazard trees) and within ecological restoration treatment areas, downed logs and standing snags which do not pose a health or safety hazard would be selectively retained to provide wildlife habitat. When masticating, operators would minimize disturbance to down wood where feasible, only moving large pieces of woody debris when necessary to reduce fire behavior or gain access to larger portions of treatment areas. Residual masticated or chipped material would be no more than 2 inches in depth. Chips would be placed on open areas where they would not impede wildlife use of refugia, such as mammal burrows, and would not cover more than 20 percent of a given treatment area. Pursuant to SPR HYD-4, 75 percent surface cover in WLPZs would be retained. Additionally, SPR BIO-4 requires retention of 75 percent overstory and 50 percent understory canopy of native vegetation within riparian habitat and would be limited to removal of uncharacteristic or undesired fuel loads (e.g., dead or dying vegetation, invasive plants). Implementation of SPRs HAZ-5 and HAZ-6 require that herbicides and other hazardous materials are handled safely and are not allowed to enter waterways including those suitable for California tiger salamander breeding and dispersal habitat. Additionally, if the presence of California tiger salamander is confirmed or assumed, then Mitigation Measure BIO-2a would require restrictions that prevent the collapse of mammal burrows used by California tiger salamander, as described above.

If Mitigation Measure BIO-2a is required for treatment activities, the project proponent would contact USFWS to seek technical input on their proposed avoidance measures and their determination that habitat function would be maintained for California tiger salamander. Mitigation Measure BIO-2a requires the project proponent to consult with USFWS for technical input on their proposed measures to avoid injury to or mortality of California tiger salamander and their determination for California tiger salamander habitat function maintenance. On May 25, 2023, CSP sent a notification to Ryan Olah at USFWS describing the project treatments, SPRs, and mitigation measures that would be implemented to maintain habitat function and avoid take of California tiger salamander. Ryan Olah responded on July 17, 2023, confirming that USFWS had reviewed the project and did not have any comments regarding the project. On May 25, 2023, CSP sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to California tiger salamander and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Katanja Waldner of CDFW issued a response on July 14, 2023, and the response did include any comments related to California tiger salamander. No refinements to the project description, SPRs, or mitigation measures related to California tiger salamander resulted from this consultation.

This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Western Pond Turtle

Aquatic habitat potentially suitable for western pond turtle is present within ponds and streams in and adjacent to the project area, and this species could use upland habitat in the vicinity of these features (Reese and Welsh 1997). Western pond turtles spend most of their time in the aquatic environment and may be present within upland terrestrial habitat up to approximately 1,500 feet from suitable aquatic habitat. These turtles lay eggs in the terrestrial environment and young typically overwinter in the nest on land. Adults may overwinter in aquatic resources or buried in leaf litter on land, and western pond turtles may be found on land during all times of the year (Reese and Welsh 1997).

If present, western pond turtle could be inadvertently injured or killed by heavy machinery, personnel, vehicles, prescribed broadcast burns, and pile burning. Workers conducting manual treatment activities and herbicide

application on foot are relatively unlikely to cause injury, mortality, or substantial disturbance to individual western pond turtles because they move relatively slowly throughout the project area. However, vehicles associated with these treatment activities have the potential to crush individuals that are moving through upland habitat or taking refuge under vehicles, and if vehicles are driven over areas containing mammal burrows, burrow collapse may result in injury or mortality of any turtles using burrows for refuge. The potential for initial treatment activities and maintenance treatments to result in adverse effects on western pond turtle was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on western pond turtles will be clearly avoided by physically avoiding the habitat suitable for these species, then no mitigation would be required. Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV streams (e.g., stock ponds, drainage canals), which would function to protect western pond turtle breeding and foraging habitat. Additionally, SPR HYD-5 requires that herbicides are mixed in areas where there is no potential of a spill reaching a waterway, and no terrestrial or aquatic herbicides would be applied within the WLPZ, and SPR HYD-1 requires that project activities comply with local water quality regulations. These measures would provide protection for western pond turtle breeding habitat. However, these measures may not avoid impacts on western pond turtle when they are present outside of established WLPZs or buffers, or if non-mechanical treatment activities implemented within the WLPZ resulted in injury or mortality of western pond turtle. Western pond turtle may be present up to approximately 1,500 feet from aquatic habitat in the project area; therefore, it is unlikely that all habitat potentially suitable for the species can be fully avoided while meeting project objectives. As a result, SPR BIO-10 would apply, and focused pre-activity visual encounter surveys for western pond turtle would be conducted by a qualified RPF or biologist within upland habitat areas suitable for the species before ground-disturbing treatment activities (i.e., mechanical treatments) and prescribed burning. Manual treatments and herbicide application are not expected to result in adverse effects on western pond turtle. If western pond turtle is assumed present or identified during focused surveys, Mitigation Measure BIO-2b for this species would be implemented.

Under Mitigation Measure BIO-2b, the project proponent would flag areas for avoidance, relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury to or mortality of western pond turtle. Pursuant to Mitigation Measure BIO-2b, limits on mastication, driving of mechanical equipment, and placing of burn piles would be required to protect western pond turtle adults using burrows for refugia, and would provide protection for turtle nests located in upland areas. The project proponent may consult with CDFW for technical information regarding appropriate measures.

Habitat function for western pond turtle would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and pursuant to SPR HYD-4 treatments within stream WLPZs adjacent to the project area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Additionally, habitat function would be maintained in western pond turtle upland habitat because SPRs HYD-4 and HYD-5 prevent direct adverse impacts to upland habitat within the WLPZ. Additional project-specific refinements to Mitigation Measure BIO-2b restrict use of mechanical equipment and burn piles in areas identified by a qualified RPF or biological technician as suitable upland habitat for western pond turtle, which would maintain function for these potential overwintering, nesting, or upland dispersing habitat areas. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Western Spadefoot

Western spadefoot has potential to occur in grassland and oak woodland habitats in the project area that contains seeps, wetlands, or other temporary pool habitat formed by winter rains (e.g., tire ruts). One recent study demonstrated that western spadefoot adults may burrow in upland habitat up to approximately 860 feet from breeding ponds (Baumberger et al. 2019).

If present, western spadefoot could be inadvertently injured or killed by heavy machinery, personnel, vehicles, prescribed broadcast burns, and pile burning (if piles are placed on or near burrows). Workers conducting manual treatment activities and herbicide application on foot are relatively unlikely to cause injury, mortality, or substantial disturbance to individual western spadefoot because they move relatively slowly throughout the project area. However, vehicles associated with these treatment activities have the potential to crush individual toads that are moving through upland habitat or taking refuge under vehicles, if vehicles are driven over areas containing mammal burrows, burrow collapse may result in injury or mortality of any toads using burrows for refuge. The potential for treatment activities and maintenance treatments to result in adverse effects on western spadefoot was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on western spadefoot will be clearly avoided by physically avoiding the habitat suitable for these species, then no additional measures would be required. Wetland delineations would be conducted to determine if seasonal wetland or vernal pool habitats are present within a treatment area, and where aquatic habitats are delineated, no-disturbance buffers of at least 25 feet would be implemented (refer to Impact BIO-4). Although these measures would avoid and minimize some adverse effects on western spadefoot toad, 25-foot buffers around delineated wetlands would not be sufficient to prevent impacts on the species. For example, spadefoot toads could be present in aquatic features that do not qualify as wetlands (e.g., tire ruts); and western spadefoot may be present relatively large distances (i.e., up to 860 feet) from breeding pools throughout the grassland and oak woodland habitat in low-elevation areas of the project area. Therefore, avoidance of all habitat potentially suitable for this species during project implementation is unlikely. As a result, SPR BIO-10 would apply, and focused surveys for western spadefoot would be conducted by a qualified RPF or qualified biological technician within habitat suitable for these species prior to implementation of mechanical, manual, pile burning, and targeted ground application of herbicide treatments, or presence of the species would be assumed.

If western spadefoot is not detected within the project area during focused surveys, then no mitigation for the species would be required. If western spadefoot is detected during focused surveys, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, the project proponent would require flagging areas for avoidance, relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury to or mortality of this species. The project proponent may consult with CDFW for technical information regarding appropriate measures.

Habitat function for western spadefoot would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and pursuant to Mitigation Measure BIO-4 (refer to Impact BIO-4 below), impacts on wetlands would be avoided through establishment of no-disturbance buffers. Additionally, habitat function would be maintained in western spadefoot upland habitat because SPRs HYD-4 and HYD-5 prevent direct adverse impacts to upland habitat within the WLPZ. Additional project-specific refinements to Mitigation Measure BIO-2b restrict use of mechanical equipment and burn piles in areas identified by a qualified biological technician or a qualified RPF as suitable upland habitat for western spadefoot, which would maintain function for potential upland dispersal and refugia habitat areas. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Special-Status Reptiles

California glossy snake, coast horned lizard, and San Joaquin coachwhip have potential to occur in the project area. These reptile species all are habitat generalists and may use a variety of habitats in the project area, though all prefer open areas with sandy soils and mammal burrows or debris to use for refugia. These species may be present in a variety of open habitats in the project area and are most likely to occur in open areas in chamise-redshank chaparral, coastal scrub, mixed chaparral, annual grassland, or oak woodland. Treatment activities, including manual and mechanical treatments, prescribed burning, and herbicide application would be implemented within these habitat types. Because these habitats would not be avoided through implementation of other measures, adverse effects on California glossy snake, coast horned lizard, and San Joaquin coachwhip could occur.

If present, California glossy snake, coast horned lizard, or San Joaquin coachwhip could be inadvertently injured or killed by heavy machinery, personnel, vehicles, prescribed broadcast burns, or pile burning (if piles are placed on or near burrows). Workers conducting manual treatment activities and herbicide application on foot are relatively unlikely to cause injury, mortality, or substantial disturbance to individual reptiles because they move relatively slowly throughout the project area. However, vehicles associated with these treatment activities have the potential to crush individual reptiles that may take refuge under vehicles and, if vehicles are driven over areas containing mammal burrows, burrow collapse may result in injury or mortality of any reptiles using burrows for refuge. The potential for treatment activities and maintenance treatments to result in adverse effects on California glossy snake, coast horned lizard, and San Joaquin coachwhip was examined in the Program EIR.

Because these species are habitat generalists that may be present in a variety of areas subject to the proposed vegetation treatments, it is unlikely that all habitat potentially suitable for the species can be avoided. As a result, SPR BIO-10 would apply, and focused surveys for California glossy snake, coast horned lizard, and San Joaquin coachwhip would be conducted by a qualified RPF or biologist within habitat suitable for the species prior to implementation of mechanical, manual, prescribed burning, and targeted ground application of herbicide treatments.

If California glossy snake, coast horned lizard, or San Joaquin coachwhip are not detected within the project area during focused surveys, then no mitigation for the species would be required. If the species are detected during focused surveys, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, the project proponent would require flagging areas for avoidance, relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury to or mortality of California glossy snake, coast horned lizard, and San Joaquin coachwhip. The project proponent may consult with CDFW for technical information regarding appropriate measures.

Habitat function for California glossy snake, coast horned lizard, and San Joaquin coachwhip would be maintained through SPRs and protective measures that would result in retention of habitat features important to these species. Pursuant to SPR BIO-5, treatments implemented in chaparral would be designed to avoid type conversion of chaparral vegetation (the optimal habitat for these species) and to maintain chaparral habitat function. This would include determining the minimum percent cover of mature native shrubs to maintain habitat function, identifying the appropriate percent cover specific to the vegetation alliances present, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. Habitat function maintenance for coastal scrub and chaparral required for the protection of habitat for Alameda whipsnake pursuant to mitigation measure Mitigation Measure BIO-2a would also maintain habitat function for other special-status reptiles. Ecological restoration treatment in grassland areas would focus on broadcast burning and herbicide to encourage native species and promote habitat quality within the natural fire regime, retaining habitat function for grassland species. Treatment activities would not result in removal of trees (i.e., conifers, hardwoods) greater than 6 inches dbh. Treatment of oak-bay woodlands would focus on understory thinning and removal of nonnative vegetation while avoiding conversion of habitat type. In ecological restoration treatment areas, downed logs that might provide suitable refugia for reptiles would be selectively retained, and disturbance to down wood would be minimized during mechanical vegetation removal. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

Special-Status Birds

Eleven special-status bird species may occur within the project area: American peregrine falcon, burrowing owl, golden eagle, grasshopper sparrow, loggerhead shrike, long-eared owl, Swainson's hawk, tricolored blackbird, white-tailed kite, yellow warbler, and yellow-breasted chat (Attachment B). American peregrine falcon is known to nest in cliffs in the southwest portion of the project area (McClain, pers comm, 2022), and the foothills of Mount Diablo SP are known to support the largest concentration of breeding golden eagles on earth (Kindsvater 2019). The project area is outside of the breeding range for Swainson's hawk and long-eared owl; however, these species may forage or migrate throughout the project area. Suitable habitat for nesting is present in the project area for grasshopper sparrow, loggerhead shrike, tricolored blackbird, white-tailed kite, yellow warbler, and yellow-breasted chat.

Treatment activities, including manual treatment, mechanical treatments, and prescribed burning, conducted during the nesting bird season (January 15–August 31) could result in direct loss of active nests if trees or shrubs containing nests are removed or burned. For nests within vegetation that would not be removed, treatment activities including mechanical treatments, manual treatments, prescribed burning, and herbicide application, could result in disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chain saws, vehicles, personnel) potentially causing abandonment and loss of eggs or chicks. Nonbreeding individuals such as foraging Swainson's hawk and long-eared owl would be expected to leave an area actively being treated and are unlikely to be disturbed substantially by treatment activities. The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on habitat suitable for nesting special-status birds will be clearly avoided by physically avoiding habitat suitable for the species or conducting treatments outside of the season of sensitivity (i.e., nesting bird season), then no additional survey or avoidance measures would be required. Nesting habitat for American peregrine falcon (i.e., cliffs), and golden eagle (i.e., cliffs, large solitary trees) would not be targeted for treatment or removed. Nesting habitat for Swainson's hawk and long-eared owl would not be affected by treatment implementation because these species do not breed within the project area, and no breeding individuals would be expected in the project area. Adverse effects on nesting special-status birds would be clearly avoided for treatments that would occur outside of the nesting bird season (January 15–August 31).

If conducting some treatments outside of the nesting bird season is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and focused nesting bird surveys for American peregrine falcon, burrowing owl, golden eagle, grasshopper sparrow, loggerhead shrike, tricolored blackbird, white-tailed kite, yellow warbler, and yellow-breasted chat would be conducted prior to implementation of treatment activities; or, in lieu of conducting surveys, presence of the species may be assumed and Mitigation Measures BIO-2a and/or BIO-2b would apply. Mitigation Measure BIO-2a and BIO-2b requirements for avoiding disturbances to nests and maintaining habitat function in habitat occupied or assumed to be occupied by special-status birds are discussed below.

If no active bird nests are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status bird nests are observed during focused surveys, or the species is assumed present in lieu of conducting surveys, then Mitigation Measures BIO-2a (for American peregrine falcon, golden eagle, tricolored blackbird, white-tailed kite) and BIO-2b (for burrowing owl, grasshopper sparrow, loggerhead shrike, yellow warbler, and yellow-breasted chat) would be implemented. Mitigation Measures BIO-2a and BIO-2b require: 1) implementation of no-disturbance buffers to avoid disturbance or loss of active nests; and 2) design of vegetation treatments to maintain habitat function in areas occupied, or assumed to be occupied, by the species. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities including manzanita chaparral, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 0.5 mile would be established around active American peregrine falcon and golden eagle nests, 0.25 mile for white-tailed kite nests, and at least 100 feet around nests of other special-status birds. No treatment activities would occur within this buffer until chicks have fledged, or the nest is otherwise no longer active, as determined by a qualified RPF or biologist. Burrowing owls may occupy their burrows year-round; therefore, a no-disturbance buffer of 1,640 feet (500 meters) during the nesting season (April 1 – August 15), 660 feet (200 meters) during the fledging season (August 16 – October 16), and 330 feet (100 meters) during the overwintering season (October 16 – March 31) would be implemented around occupied burrowing owl burrows (CDFW 2012). If feasible, no treatment activities would occur within a burrowing owl buffer until the burrow was determined to be unoccupied based on a protocol burrowing owl survey conducted by a qualified RPF or biologist. Burrowing owls nest and overwinter in grassland areas characterized by short or absent vegetation and low fuel risk, and treatment activities can avoid these areas if the burrowing owl remains in the area. If avoidance of a raptor nest or burrowing owl buffer is determined infeasible due to site-specific conditions, SPR BIO-12 would apply, and treatment could occur within the nest buffer with a qualified RPF, biologist, or biological technician monitoring the active nest or burrow to confirm that the individual does not show signs of disturbance. SPR BIO-12 also requires that raptor nest trees are retained, including trees which American peregrine falcon, golden

eagle, or white-tailed kites use for nesting. Additionally, trees containing golden eagle nests would not be removed pursuant to the Bald and Golden Eagle Protection Act.

Habitat function for special-status birds would be maintained because treatment activities would not result in removal of trees (i.e., conifers, hardwoods) greater than 6 inches dbh, and all raptor nest trees would be retained. Implementation of SPR BIO-3 requires that sensitive natural communities (including some bird nesting habitat areas) are surveyed for and mapped prior to implementation, and SPR BIO-4 requires that riparian areas are designed to maintain habitat function. Habitat function for species that use coastal scrub and chaparral would be maintained pursuant to the project-specific implementation requirements of Mitigation Measure BIO-2a that are intended to protect Alameda whipsnake. Additionally, ecological restoration treatment in grassland areas would focus on broadcast burning and herbicide application to encourage native species and promote habitat quality within the natural fire regime, retaining habitat function for bird species that rely on grasslands. Treatment of oak-bay woodlands (including treatment in blackberry patches) would focus on understory thinning and removal of nonnative vegetation while avoiding the conversion of habitat type. In ecological restoration treatment areas, downed logs would be selectively retained, and disturbance to down wood would be minimized during mechanical vegetation removal, as they may provide foraging and refugia habitat for a variety of special-status birds. Additionally, treatments within riparian habitat (which provides nesting habitat for several of the special-status bird species that may occur in the project area [e.g., tricolored blackbird, yellow warbler, yellow-breasted chat]) that is included within a WLPZ would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Pursuant to Mitigation Measure BIO-2a, the final determination for habitat function maintenance for American peregrine falcon, golden eagle, tricolored blackbird, and white-tailed kite (i.e., state listed or Fully Protected species) must be made by CSP in consultation with CDFW. CSP consulted with CDFW to seek technical input on the determination that habitat function would be maintained for American peregrine falcon, golden eagle, tricolored blackbird, and white-tailed kite, and CDFW's Bay Delta Region provided a response on July 14, 2023. In their response, CDFW requested that the start date for the nesting bird season be revised to January 15 rather than February 1 to account for the early nesting season of golden eagle. This recommendation was incorporated into this PSA/Addendum and the associated MMRP under SPR BIO-1 and SPR BIO-10. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Fish

Four special-status fish species may occur within the project area: central California roach, hardhead, Sacramento hitch, and Sacramento perch (Attachment B). Central California roach and hardhead may persist in intermittent or ephemeral streams throughout the project area. Habitat suitable for Sacramento hitch and Sacramento perch was only observed in Pine Creek during the October 2022 survey; these species require substantial aquatic vegetation. All streams observed in the project area are ephemeral or intermittent, and most have a very short hydroperiod and would only support these species during the wet season. Special-status fish species could be adversely affected by treatment activities that result in deposition of debris or hazardous waste into occupied streams, or that result in physical disturbance or alteration to aquatic and riparian habitats. The potential for treatment activities and maintenance treatments to result in adverse effects on special-status fish was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status fish will be clearly avoided by physically avoiding habitat for these species, then mitigation would not be required. WLPZs ranging from 50 to 150 feet adjacent to all Class I and Class II streams within the project area would be implemented per SPR HYD-4. Adverse effects on special-status fish would be clearly avoided through implementation of these SPRs and further mitigation would not be required.

Habitat function for special-status fish would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat and treatments within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover, no treatment within 300 feet of ponds). This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Bumble Bees

Crotch's bumble bee may occur in the project area. One 1954 occurrence of Crotch's bumble bee is documented near the peak of Mount Diablo, one 1958 occurrence is recorded in the proposed project area, and three additional historic occurrences are documented in the surrounding hills within 10 miles of the project area. Although these occurrences of the species are historic, the species is considered extant in the region (CNDDB 2022), and recent research has indicated that the species is present in the Central Valley into the eastern slopes of the Mount Diablo Foothills (Hatfield and Jepsen 2021). Crotch's bumble bee was designated as a candidate for listing as endangered under CESA by the California Fish and Game Commission on June 12, 2019. A November 13, 2020, court decision by the Superior Court of Sacramento ruled that insects are not eligible for listing under CESA and vacated the candidacy of bumble bee species. CDFW appealed this decision, and on May 31, 2022, the Third District Court of Appeal in Sacramento ruled that insects are eligible for listing under CESA, and the candidacy of bumble bee species under CESA has be reinstated. Crotch's bumble bee has recently undergone declines in abundance and distribution and are no longer present across much of their historic range (Xerces 2018).

Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens. The project area contains habitat suitable for Crotch's bumble bee nesting and overwintering as well as floral resources. Treatment activities including manual treatments, mechanical treatments, prescribed burning, and herbicide application could result in temporary removal of floral resources, as well as inadvertent destruction of bumble bee nests or overwintering sites, if present in the project area, through trampling, crushing, or removal of nesting or overwintering substrate (e.g., downed woody debris). The potential for treatment activities to result in adverse effects on special-status bumble bees was examined in the Program EIR.

In the Program EIR, Mitigation Measure BIO-2g was proposed as a feasible set of actions to reduce potentially significant impacts on special-status bumble bees by requiring avoidance of prescribed burning and targeted ground application of herbicide treatment during the flight/nesting season and retention of suitable habitat in the range of these species, or compensation for unavoidable loss of special-status bumble bees or habitat function. Recognizing the difficulty in detecting overwintering and nesting bumble bees and determining the occurrence and severity of impacts, very limited information about nesting and overwintering behaviors, and the statewide scope of potential effects analyzed, for purposes of good faith and full disclosure under CEQA, this impact was designated in the Program EIR as potentially significant and unavoidable. However, addressing this potential effect at a project-specific level may result in a different significance conclusion if evidence supports it.

Per SPR BIO-1, if it is determined that adverse effects on Crotch's bumble bee will be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then additional survey and avoidance measures would not be required. However, because Crotch's bumble bee may use habitat in the project area year-round, implementation of SPR BIO-10 would be required prior to treatment activities. Under SPR BIO-10, focused surveys for special-status bumble bees would be conducted or, in lieu of conducting surveys (e.g., if conducting a valid survey is not feasible), the potential presence of Crotch's bumble bee in the project area would be assumed.

Because the project area is within the range of Crotch's bumble bee and contains habitat suitable for the species, and Mitigation Measure BIO-2g is feasible to implement for the project, Mitigation Measure BIO-2g would be implemented as required in the Program EIR. Mitigation Measure BIO-2g includes several measures to avoid mortality, injury, or disturbance to Crotch's bumble bees and to maintain habitat function,. These measures include limiting prescribed burning and herbicide application during the bumble bee flight and nesting season (March through September), as feasible, where project objectives would still be met; and conducting treatments in a patchy pattern to retain floral resources and provide refuge for bumble bees, as feasible. Additional project-specific implementation has been added to mitigation measure BIO-2g after feedback from CDFW and confirmation of the feasibility of implementing the measures in Mitigation Measure BIO-2g, including restrictions on herbicide application techniques, specific guidance for chipped debris and burn pile placement, guidance for broadcast burning, CDFW review of bumble bee biologist qualifications, and division of the project area such that the entirety of habitat is not

treated in a single year. With implementation of these measures, the potential for impacts to Crotch's bumble bee individuals will be reduced to less-than-significant with mitigation.

With implementation of Mitigation Measure BIO-2g and applicable SPRs, habitat function for Crotch's bumble bee would be maintained during and after treatment implementation. Treatments would be designed and implemented in a patchy pattern to retain floral resources and provide refuge for bumble bees. Treatment activities in ecological restoration treatment areas would retain select logs and snags that provide wildlife habitat but do not pose safety hazards; some of these features may provide suitable nesting or overwintering sites for Crotch's bumble bee. The proposed vegetation treatments would not cause any conversion or loss of natural land cover or permanent soil disturbance that could remove availability of potential underground nesting or overwintering sites over the long term. Ecological restoration treatment in grassland areas would focus on broadcast burning and herbicide application to encourage native species and promote habitat quality within the natural fire regime, retaining floral resources and other elements of habitat function for grassland species. SPR BIO-9 would be implemented, which would prevent the spread of invasive plants and noxious weeds through application of best management practices before, during, and after treatments. Additionally, requirements to maintain vegetation characteristics (e.g., composition, structure, and pattern) and habitat function in coastal scrub, chaparral, and adjacent grasslands for Alameda whipsnake, pursuant to Mitigation Measure MM BIO-2a, would incidentally contribute to maintenance of floral resources and habitat function for Crotch's bumble bee. With implementation of Mitigation Measure BIO-2g and applicable SPRs, the impact of the project on habitat function for Crotch's bumble bee would be less than significant with mitigation.

CSP consulted with CDFW to seek technical input on the determination that habitat function would be maintained for Crotch's bumble bee, and CDFW input on the proposed measures was received on July 14, 2023. During the project-specific consultation with CDFW, the Bay Delta Region recommended that CSP review the CDFW publication *Survey Considerations for CESA Candidate Bumble Bees* (CDFW 2023) when developing survey methods, pursuant to SPR BIO-10. This request has been incorporated into the MMRP. Further guidance was provided from CDFW in October 2023 as the PSA/Addendum was being finalized. Recommended guidance included requirements for herbicide application season and technique, limitations to prescribed burning and biomass disposal, CDFW review of biologist qualifications, and a requirement that treatments are designed and implemented such that the entirety of suitable habitat is not treated within the same year. These requirements were incorporated in the MMRP as project-specific implementation under mitigation measure BIO-2g.

These potential effects would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Monarch

Several observations of milkweed, monarch adults, and monarch breeding have been documented in the project area. Monarch breeding has been reported in the Western Monarch Milkweed Mapper at several locations within 1 mile of the project area, but not within any treatment areas (Xerces 2022). Stands of mature trees within the project area are potentially suitable overwintering roost habitat for monarch, although no overwintering monarchs have been documented in the area (Xerces 2016). Overwintering colonies are discussed under Impact BIO-5.

The project area contains various natural habitats and floral resources that likely provide foraging or breeding habitat suitable for this species. Treatment activities, including manual treatments, mechanical treatments, prescribed burning, and herbicide application, could result in temporary removal of floral resources, including monarch host plants (i.e., milkweed), or direct mortality of monarch butterflies. Due to documented decreases in overwintering populations, USFWS determined that the listing of monarch as threatened or endangered under ESA was warranted but precluded due to higher priority actions. Federal candidate species are not provided protection under ESA. The potential for treatment activities to result in adverse effects on monarch butterflies was examined in the Program EIR.

Monarch foraging habitat and habitat suitable for milkweed would largely be present in grasslands in the project area, and grassland habitat comprises approximately 29 percent of the total project area (Table 4.5-1). While research regarding the effects of prescribed burning on the milkweed species present in Contra Costa and Alameda counties (e.g., showy milkweed [*Asclepias speciosa*], narrowleaf milkweed [*Asclepias fascicularis*], California milkweed [*Asclepias californica*]) is limited, research regarding some milkweed species including showy milkweed has suggested that

prescribed burning during the dormant season has positive or neutral effects on milkweed seedlings (Ulev 2005). Further, because milkweed has light, wind-blown seeds, deep rhizomes, and early successional status, showy milkweed has adaptations that typically promote fire survivorship and establishment in early postfire communities (Ulev 2005).

Because monarch may use habitat in the project area for large portions of the year, a limited operating period or no-disturbance buffer would not be feasible to avoid impacts on monarchs. In suitable foraging, breeding, and overwintering habitat for monarch as determined by a qualified biological technician or RPF, implementation of SPR BIO-10 would be required. Pursuant to SPR BIO-10, focused noninvasive visual surveys for butterflies will be conducted during the flight season, or presence would be assumed. If monarch is detected during surveys or presence of the species is assumed, Mitigation Measure BIO-2e would be implemented. Under Mitigation Measure BIO-2e, the project proponent would implement measures recommended by a qualified RPF or biologist as necessary to avoid significant impacts on monarch. The Xerces Society for Invertebrate Conservation has identified regionally appropriate monarch breeding habitat management windows to avoid impacts on monarch eggs and larvae (Xerces Society 2019). In monarch breeding habitat within the coastal and central California region, a limited operating period of October 31-March 15 is recommended during which management activities (e.g., mowing, prescribed burning) would occur (Xerces Society 2019). Prescribed burning activities under the proposed project would occur November through May, which is primarily within this recommended period. Other feasible measures pursuant to Mitigation Measure BIO-2e would be implemented including the treatment of habitat in a patchy pattern and avoidance of treatment within the entirety of the species' habitat within the same year to retain floral resources and provide refuge for monarch.

As outlined under Mitigation Measure BIO-2e, if the project proponent determines that the impacts on special-status butterflies (that are not listed under ESA or CESA) would be less than significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, no further mitigation would be required. Because treatments would not target nor remove substantial amounts of milkweed plants, prescribed burning would occur within the recommended window to avoid impacts on monarch eggs and larvae, and treatments may maintain grassland habitats or improve habitat for milkweed species over the long term, impacts on monarchs would be reduced to less than significant.

Habitat function for monarch would be maintained because treatment activities and maintenance treatments would not target monarch host plants and because all habitat suitable for monarch in the project area would not be treated at once (i.e., treatments in the project area would occur over the course of several years). Prescribed burning would also reduce encroachment of woody species and maintain grassland areas where this encroachment is occurring, potentially maintaining foraging and breeding habitat for monarchs. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

American Badger

Habitat suitable for American badger is present within grassland and open woodland in the project area, and this species is known to den along one fuel break on Summit Road (McClain, pers. comm., 2022). Treatment activities, including mechanical treatments and prescribed burning, could result in direct loss of active dens and potential loss of young, if present in the project area. Manual treatments and herbicide application treatments are not expected to result in adverse effects on American badger dens because these treatments would typically occur within habitats where American badger dens are unlikely to occur (e.g., dense chaparral and forest habitat); and, because personnel would conduct these activities on foot, the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. The potential for treatment activities to result in adverse effects on American badger was examined in the Program EIR.

The single known active badger den along Summit Road would be identified by CSP staff prior to project activities and avoided during implementation. However, because American badgers may use other dens year-round, and because focused surveys for American badgers have not been conducted throughout the entire project area and additional dens may be present, implementation of SPR BIO-10 would be required before mechanical treatments and

prescribed burning. Under SPR BIO-10, focused surveys would be conducted for American badger dens within habitat suitable for the species (i.e., grasslands, open woodland) by a qualified RPF or biologist. If American badger dens are not detected during focused surveys, then further survey and avoidance measures for the species would not be required. If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer would be established around the den, the size of which would be determined by the qualified RPF or biologist and no treatment activities would occur within this buffer. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

Habitat function for American badger would be maintained because habitat suitable for the species (i.e., grasslands, open woodlands) would be maintained and additional open woodland habitat would likely be restored through thinning and removal of ladder fuels. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Mountain Lion

Mountain lion has been documented in Mount Diablo SP and the surrounding areas and, the project area likely overlaps partially with the home ranges of multiple individual lions (iNaturalist 2022, Yovovich et al. 2020). The average home range for mountain lions with kittens is 3.5 square miles (Yovovich et al. 2020). The project area comprises 7.8 square miles; however, the entire area of CSP property including open space between the proposed treatment areas comprises approximately 30 square miles, and mountain lion denning may occur within the project area and within the open areas between treatment areas. The project area is concentrated along accessible trails and roads, and mountain lions are known to avoid roads and human-disturbed areas when selecting den sites (Yovovich et al. 2020). Remote areas of the project area have the potential to provide nursery habitat (i.e., den habitat) potentially suitable for mountain lion. Additionally, mountain lion may use the project area as foraging habitat year-around.

Mountain lion could occur within the project area, but treatment activities, including maintenance treatments, would not occur at the time of day when mountain lions would be active. In addition, foraging mountain lions are also likely to avoid the area while treatments are actively being performed due to increased noise from equipment. Furthermore, SPR BIO-2 would require biological resources training for workers and would instruct workers to stop work and allow wildlife, including mountain lion, to leave the area unharmed. Therefore, it is unlikely that vegetation treatments would substantially disturb mountain lions. However, although unlikely due to the proximity to roads and trails, there is a possibility that a mountain lion could use rocky areas or areas with thick vegetation in the project area for denning. If a mountain lion den is present within the project area, mountain lions and kittens could be disturbed by manual treatments, mechanical treatments, or prescribed burning activities. This disturbance of denning lions, if present, could result in interrupted kitten feeding or the movement of kittens to another location, which could have adverse effects on the kittens. The potential for treatment activities, including maintenance treatments, to result in adverse effects on denning special-status wildlife, which includes mountain lion was examined in the Program EIR.

Because mountain lions use dens year-round, may have kittens year-round, and could be present within the project area year-round, there is no reliable season during which impacts on this species could be avoided if the species is present. As a result, SPR BIO-10 would apply, and focused, noninvasive surveys for mountain lion dens would be conducted within habitat suitable for denning prior to implementation of mechanical and manual treatments to determine whether occupied mountain lion dens are present within the project area. If no occupied dens or signs of occupied dens are observed during focused surveys, then no additional mitigation would be required. If occupied mountain lion dens are identified during focused surveys or assumed present, Mitigation Measure BIO-2a would be implemented. Under Mitigation Measure BIO-2a, CSP would be required to either avoid the occupied area by a distance of 2,000 feet, following the most current and commonly accepted science (Wilmers et al. 2013), or consult with CDFW to identify other measures to avoid disturbance, injury, or mortality to mountain lions.

Habitat function for mountain lion would be maintained through SPRs and protective measures that would result in retention of habitat features important to this species. Mountain lion habitat function would be retained because

treatment activities would not result in removal of downed woody debris greater than 6 inches dbh, and rocky outcrops would be avoided which would be the most likely features to be used by this species for denning and cover. Mountain lion may use chaparral for denning, foraging, or refugia. Pursuant to SPR BIO-5, treatments implemented in chaparral would be designed to avoid type conversion of chaparral vegetation and to maintain chaparral habitat function. This would include determining the minimum 35 percent cover of mature native shrubs to maintain habitat function, identifying the appropriate percent cover specific to the vegetation alliances present, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. Habitat function maintenance for coastal scrub and chaparral required for the protection of habitat for Alameda whipsnake pursuant to Mitigation Measure BIO-2a would also maintain habitat function for mountain lion using these areas. There would not be a significant change in the function of existing forested habitat within the project area because trees greater than 6 inches dbh would be retained, and desirable tree species would be retained to the extent possible. Treatment of oak-bay woodlands would focus on understory thinning and removal of nonnative vegetation while avoiding conversion of habitat type. Ecological restoration treatment in grassland areas (which mountain lion may use for foraging) would focus on broadcast burning and herbicide application to encourage native species and promote habitat quality within the natural fire regime, retaining habitat function for mountain lion. Treatments would not result in landscape-scale or home-range-scale modifications; rather, treatments would restore the natural processes of the ecosystem and promote wildfire resiliency, which may benefit mountain lion. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

Pursuant to Mitigation Measure BIO-2a, and because this species is a candidate for listing under CESA, CSP must consult with CDFW about its determination that mortality, injury, or disturbance would not occur, and that habitat function would be maintained. For the reasons summarized in the previous paragraphs, CSP determined that implementation of initial and maintenance treatments would maintain habitat function for mountain lion and contacted CDFW to seek technical input on this determination, as required. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

On May 25, 2023, CSP sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to mountain lion and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Katanja Waldner of CDFW issued a response on July 14, 2023, and the response did not include any comments related to mountain lion. No refinements to the project description, SPRs, or mitigation measures related to mountain lion resulted from this consultation

Ringtail

Ringtail is primarily nocturnal and typically occurs in riparian areas, forests (including stands of various ages), and shrub habitats. Potential denning habitat includes rock outcrops, crevices, snags, large hardwoods, large conifers, and dense shrub habitat. Manual treatments and herbicide application treatments are not expected to result in adverse effects on ringtail dens because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. However, mechanical treatments and prescribed burning conducted during the ringtail maternity season (i.e., the period during which young would be present in a den, approximately April 15–July 31) could result in destruction of active dens within shrub habitat or disturbance to active dens potentially resulting in abandonment and loss of young that may not yet be capable of fleeing. Most ringtail habitat would be avoided, as most live trees (i.e., conifers, hardwoods, excluding dead or dying trees and nonnative or invasive trees) larger than 6 inches dbh would not be removed during treatment or maintenance activities and because rocky areas would not be targeted for vegetation treatment; however, dense shrub habitat would be targeted for treatment and would not be avoided through implementation of other measures. The potential for treatment activities, including maintenance treatments, to result in adverse effects on ringtail was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on ringtail will be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season), then additional avoidance measures would not be required. Adverse effects on ringtail denning/breeding would be avoided for mechanical treatments and prescribed

burning that would occur outside of the ringtail maternity season (April 15–July 31). Outside of the breeding season, resting ringtails would likely flee due to the presence of equipment, vehicles, or personnel, and injury or mortality would not be expected.

If conducting some mechanical treatments and prescribed burning outside of the ringtail maternity season is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and presence of ringtail would be assumed, or focused surveys for ringtail would be conducted within the project area before implementation of treatment activities. Surveys for ringtail would include the use of trail cameras, track plates, and other non-invasive survey methods to determine whether ringtail are present within the project area and would be conducted by a qualified RPF or biologist. If baited trail cameras are used, the qualified professionals would obtain a valid CDFW Scientific Collecting Permit. If focused surveys are conducted, and ringtail are not detected, then further mitigation for the species would not be required. If ringtail are detected during focused surveys, then additional surveys would be required to determine whether an active ringtail den is present within the project area. If an active den is identified by a qualified RPF or biologist, Mitigation Measure BIO-2a would be implemented. Under Mitigation Measure BIO-2a, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW. No treatment activities would occur within this buffer. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat.

If the presence of ringtail within the project area is assumed in lieu of conducting surveys, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2a before and during implementation of mechanical treatments and prescribed burning between April 15 and July 31. Avoidance and minimization measures would include but not be limited to pre-activity den surveys, daily sweeps of the treatment area, and biological monitoring.

Habitat function for ringtail would be maintained because initial treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods) greater than 6 inches dbh, which would be the most likely features to be used by this species. Additionally, rocky areas would not be targeted for vegetation treatment. Pursuant to SPR HYD-4, treatments within stream WLPZs would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Additionally, Mitigation Measure BIO-2a requires that the final determination for habitat function maintenance must be made by the project proponent in consultation with CDFW. Therefore, if Mitigation Measure BIO-2a is required for treatment activities, the project proponent would contact CDFW to seek technical input on the determination that habitat function would be maintained for ringtail and input on their proposed measures to avoid injury to or mortality of this species. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

On May 25, 2023, CSP sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to ringtail and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Katanja Waldner of CDFW issued a response on July 14, 2023, and the response included some additional recommendations related to ringtail. At CDFW's recommendation, the CDFW contact information for reporting observations of ringtail was updated under Mitigation Measure BIO-2a. In addition, the ringtail breeding season end date was changed from June 30 to July 31, based on CDFW's recommendation. Following discussions regarding ringtail habitat use, no further refinements to the project description, SPRs, or mitigation measures related to ringtail resulted from this consultation.

Special-Status Bats

Habitat potentially suitable for four special-status bat species—pallid bat, Townsend's big-eared bat, western mastiff bat, and western red bat—is present within forest and woodland habitats, rocky areas, and human-made structures (e.g., barns, bridges) in the project area. Per SPR BIO-1, if it is determined that adverse effects on special-status bats will be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season), then mitigation would not be required. Adverse effects on special-status bat maternity roosts would be clearly avoided if

initial and maintenance treatments were implemented outside of the bat maternity season (April 1–August 31) (Caltrans 2004).

Treatment activities, including manual treatments, mechanical treatments, and prescribed burning conducted within habitat suitable for bats during the bat maternity season (April 1–August 31) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chain saws, vehicles, personnel) or smoke (e.g., prescribed burning) potentially resulting in abandonment of roosts and loss of young. Herbicide treatments would be limited to ground-based methods, such as using a backpack sprayer or painting herbicide onto cut stems and would be conducted by crews of 1-5 people; thus, these treatments would not be expected to result in substantial disturbance to special-status bat roosts. The potential for treatment activities to result in adverse effects on special-status bats was examined in the Program EIR.

If implementation of some mechanical or manual treatments, or prescribed burning, would occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for these species would be conducted by a qualified RPF or biologist within areas containing habitat suitable for bat maternity roosting before initiation of manual, mechanical, and prescribed burning treatments. If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer of 250 feet would be established around active pallid bat, Townsend's big-eared bat, western mastiff bat, and western red bat roosts and mechanical treatments, manual treatments, and prescribed burning would not occur within this buffer. Additionally, pursuant to Mitigation Measure BIO-3a, treatments would be designed to avoid the loss of oak woodlands and sensitive natural communities, and pursuant to Mitigation Measure BIO-3b, the project would compensate for any loss of oak woodland or sensitive natural community habitat. Habitat function for special-status bats would be maintained because treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods) greater than 6 inches dbh, which would be the trees most likely used by these bat species. Additionally, caves and similar features suitable for bat roosting, if present in the project area, would not be affected by vegetation treatments. Further, bat foraging habitat, including meadows and open water, would not be modified during treatments, and thus would be retained in the project area. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Conclusion

The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the Program EIR. This proposed project's impact on special-status wildlife is within the scope of the Program EIR because the habitat types potentially affected by the treatments, the treatment activities, and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special-status wildlife is also the same, as described above. SPRs that apply to project impacts under Impact BIO-2 include BIO-1 through BIO-5, BIO-9, BIO-10, GEO-1, HAZ-5, HAZ-6, HYD-1, HYD-4, and HYD-5. Additionally, Mitigation Measures BIO-2a, BIO-2b, BIO-2e, BIO-2g, BIO-3a, BIO-3b, and BIO-4 would apply. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-3

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on sensitive habitats, including designated sensitive natural communities. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities are proposed; however, retreatment at too great a frequency could result in additional adverse effects. The potential for treatment activities, including maintenance treatments, to adversely affect sensitive habitats was examined in the Program EIR.

Based on the habitat types present in the project area and the reconnaissance-level survey of the project area, seven sensitive natural communities (i.e., natural communities with a rarity rank of S1, S2, or S3) are likely present in the project area and an additional 11 sensitive natural communities have the potential to occur in the project area. The sensitive natural communities, their associated rarity rank, and the habitat type within which the communities may occur are presented in Table 4.5-2. In addition, several oak woodland and forest types (e.g., blue oak woodland, coast oak woodland), which are sensitive habitats pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4, may occur in the project area.

Table 4.5-2 Sensitive Natural Communities Documented or with Potential to Occur in the Project Area

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
California Bay Forest and Woodland+	S3	Coastal Oak Woodland
Valley Oak Woodland and Forest	S3	Valley Oak Woodland
Valley Oak Riparian Forest and Woodland	S3	Valley Oak Woodland
Bigleaf Maple Forest and Woodland+	S3	Montane Hardwood-Conifer
California Buckeye Groves+	S3	Montane Hardwood
California Sycamore – Coast Live Oak Riparian Woodlands+	S3	Valley Foothill Riparian
Fremont Cottonwood Forest and Woodland	S3.2	Valley Foothill Riparian
Goodding's Willow – Red Willow Riparian Woodland and Forest+	S3	Valley Foothill Riparian
Shining willow groves	S3.2	Valley Foothill Riparian
Wild Grape Shrubland+	S3	Valley Foothill Riparian
Eastwood Manzanita Chaparral	S3	Chamise-Redshank Chaparral
California Match Weed Patches	S3?	Coastal Scrub
Hoary, Common, and Stanford Manzanita Chaparral+	S3	Mixed Chaparral
Brittle Leaf – Woolly Leaf Manzanita Chaparral	S3	Mixed Chaparral
Glossy Leaf Manzanita – Golden Chinquapin Chaparral	S2	Mixed Chaparral
Hairy Leaf – Woolly Leaf Ceanothus Chaparral	S3	Mixed Chaparral
Canyon Live Oak – Interior Live Oak Chaparral	S3S4	Mixed Chaparral
Monolopia – Leafy-Stemmed Tickseed Fields	S3	Annual Grassland

[1] These are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable)

[2] Older ranks, which need to be updated by CDFW, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats. A question mark (?) denotes an inexact numeric rank because there are insufficient samples over the full expected range of the type, but existing information points to this rank.

+ Species observed or alliance expected to occur based on reconnaissance survey

Source: Sawyer et al. 2009, Compiled by Ascent in 2022.

During the reconnaissance-level survey, several species associated with these sensitive natural communities were observed, including bigleaf maple (*Acer macrophyllum*), California bay (*Umbellularia californica*), California buckeye (*Aesculus californica*), alder (*Alnus* spp.), California sycamore (*Platanus racemosa*), and California wild grape (*Vitis californica*). While all dominant species associated with sensitive natural communities included in Table 4.5-2 were not observed during the reconnaissance-level survey, these communities may be present. As a result, before implementation of treatment activities, SPR BIO-3 would be implemented and a qualified RPF or biologist would identify sensitive natural communities in the project area to the alliance level pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) and using the Manual of California Vegetation (including updated natural communities data at http://vegetation.cnps.org/).

Riparian habitat is present within the project area adjacent to streams, lakes, and ponds. CAL FIRE's FRAP vegetation data for the project area includes 11.8 acres of valley foothill riparian habitat in the ecological restoration treatment area, and an additional 25.7 acres of valley foothill riparian habitat in the fuel break treatment area (Table 4.5-1). Under SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented for manual and mechanical treatments, pile burning, and herbicide application, which would limit the extent of treatment activities within riparian habitat. While these SPRs would reduce potential impacts on riparian habitat, the extent of riparian habitat within the project area has not been mapped and riparian habitat may be present outside of the areas encompassed within WLPZs. As a result, before implementation of treatment activities, SPR BIO-3 would be implemented to identify and map the extent of riparian habitat within a treatment area. As required under SPR BIO-4, treatments in riparian habitats would retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation and would be limited to removal of uncharacteristic or undesired fuel loads (e.g., dead or dying vegetation, invasive plants). Additionally, before conducting any treatments in riparian habitat, the project proponent would notify CDFW pursuant to California Fish and Game Code 1602, when required.

As described above, mixed chaparral and chamise-redshank chaparral, (i.e., bigberry manzanita chaparral, hoary, common, and Stanford manzanita chaparral, and chamise chaparral,) are present within the project area. As required by SPR BIO-5, treatments implemented in chaparral would be designed to avoid type conversion of chaparral vegetation and to maintain habitat function. This would include identifying the chaparral vegetation types to the alliance level, determining appropriate treatment prescriptions based on current fire return interval departure and condition class of the chaparral vegetation alliances onsite, retaining at least 35 percent relative final density of mature chaparral vegetation, and retaining a mix of middle to older aged shrubs to maintain heterogeneity and provide nurse plants for seeding. The project proponent would demonstrate with substantial evidence that the habitat function of the specific chaparral vegetation types (i.e., alliances) present would be maintained or enhanced by the treatments applied. Ecological restoration treatments would not be implemented in stands of chaparral vegetation that are within their natural fire return interval unless the project proponent demonstrates with substantial evidence that the habitat function of the chaparral and coastal sage scrub vegetation alliances would be improved.

The project proponent would avoid impacts on sensitive natural communities and oak woodlands by avoiding treatments in these communities. However, if avoiding treatment activities within identified sensitive natural communities or oak woodlands would preclude achieving treatment objectives, then Mitigation Measure BIO-3a would apply in these areas so that the characteristics that qualify the communities as sensitive (e.g., dominant canopy species, canopy relative percentage of dominant species, species composition) are retained post-treatment to the extent feasible. Under Mitigation Measure BIO-3a, a qualified RPF or biologist would determine the natural fire regime, condition class, and fire return interval for each sensitive natural community and oak woodland type. Initial and maintenance treatment activities in sensitive natural communities and oak woodlands would be designed to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function. If habitat function of sensitive natural communities or oak woodlands would not be maintained through implementation of Mitigation Measure BIO-3a, then Mitigation Measure BIO-3b and Mitigation Measure BIO-3c would apply, and unavoidable losses of these resources would be compensated through restoration or preservation of these vegetation types within or outside of the project areas.

Hoary, common, Stanford manzanita chaparral is a sensitive natural community with a state rarity rank of S3 and is likely present in the project area. During the reconnaissance survey, common manzanita was observed in densities that could meet the criteria of the hoary, common, Stanford manzanita chaparral sensitive natural community. As mentioned under Impact BIO-1, common manzanita is an obligate seeder and has a natural fire return interval of 30 to 100 years. If this community is confirmed to be present in the project area during surveys conducted under SPR BIO-3, then treatments in these areas would be designed to retain mature nurse shrubs and a mixture of shrubs in all age classes to allow for reseeding and regeneration of the characteristic shrub species. Prescribed burning or replicate treatments would only occur within the natural fire return interval of 30 to 100 years.

The potential for treatment activities to result in adverse effects on sensitive habitats, as described above, was examined in the Program EIR. This impact on sensitive habitats is within the scope of the Program EIR because, these habitat types, the treatment activities, and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape; therefore, the potential impact on sensitive habitats is also the same. SPRs that apply to project impacts under Impact BIO-3 are BIO-1 through BIO-6, BIO-9, HYD-4, and HYD-5. Biological resource mitigation measures that apply to project impacts under Impact BIO-3 are Mitigation Measures BIO-3a through BIO-3c. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-4

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on state or federally protected wetlands. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities are proposed. The potential for treatment activities to result in adverse effects on state or federally protected wetlands was examined in the Program EIR.

During the reconnaissance-level survey, many different types of aquatic habitat were observed, including streams, ponds, and various types of wetlands. Streams in the project area include Mitchell Canyon Creek, Marsh Creek, Mount Diablo Creek, Donner Creek, Back Creek, Deer Flat Creek, Arroyo Cerro Del, and Pine Creek, as well as unnamed tributaries to these waterways. Ponds and seeps were also examined in grassland portions of the ecological restoration treatment area, and several seasonal wetlands, including potential vernal pools, were observed within the fuel break and ecological restoration areas. A forested wetland was observed along Pine Creek. The National Wetlands Inventory classifies the project area as having 3.1 acres freshwater emergent wetland, 55.6 acres of freshwater forested/shrub wetland, 2.5 acres freshwater pond, and 7.9 acres of riverine habitat (USFWS 2022b). FRAP vegetation data and National Wetland Inventory data are sourced using different methods, which accounts for slight differences in acreages. While these acreages likely overlap significantly, totals for both sources are provided here to provide a full picture of aquatic habitat potentially present in the project area.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV streams. Establishment of WLPZs would result in avoidance of all stream and pond habitat for manual, mechanical, prescribed burning, and herbicide application treatments.

Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps. Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of these features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, including vernal pools, springs, and seeps; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-

status wildlife (e.g., California tiger salamander, western pond turtle, California red-legged frog, special-status fish; see Impact BIO-2).

During the reconnaissance survey, several seasonal wetlands, including ones that may qualify as vernal pools, were observed within grassland habitat. Proposed broadcast burning in this grassland-wetland matrix would only occur in areas where surveys pursuant to SPR BIO-7 and SPR BIO-10 have been conducted and no special-status wildlife or plant species have been identified in these areas. The project proponent would demonstrate with substantial evidence that the habitat function of the specific wetland types identified by Mitigation Measure BIO-4 would be maintained and that the prescribed burn would be within the natural fire return interval of the wetland vegetation type. Furthermore, no fire ignition (nor use of associated accelerants) would occur within the wetland, and all containment lines would be installed or created outside of the wetland.

The potential for treatment activities to adversely affect state or federally protected wetlands was examined in the Program EIR. This impact on wetlands is within the scope of the Program EIR because, the types of wetland habitat, the treatment activities, and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, the potential impact on wetlands is also the same. SPRs that apply to project impacts under Impact BIO-4 are BIO-1, HYD-1, and HYD-4. The biological resource mitigation measure that applies to project impacts under Impact BIO-4 is Mitigation Measure BIO-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-5

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on wildlife movement corridors and nurseries. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities are proposed. The potential for treatment activities to result in adverse effects on wildlife movement corridors and nurseries was examined in the Program EIR.

Based on review and survey of project-specific biological resources (SPR BIO-1), the entire project area is located within mapped natural landscape blocks but is entirely outside of mapped essential connectivity areas (BIOS 2014; BIOS 2019). The project is primarily composed of natural landscape blocks, and likely contains natural habitat used as wildlife movement corridors to some degree either locally or regionally, especially streams and associated riparian corridors.

Ecological restoration and fuel break treatments would occur throughout the park, including near existing roads, open areas, and hiking trails. The size and traffic level of the roads and level of development within recreational areas varies; however, these areas generally are subject to ongoing disturbances (e.g., visiting recreationists, vehicle traffic, human activity). Wildlife may move through treatment areas or use some habitats for cover or as nursery sites, especially in undeveloped areas. Some fuel break treatments would be shaded fuel breaks, which would retain some forest canopy and likely maintain wildlife corridor function for arboreal species. Additionally, ecological restoration treatments are designed to improve forest health, to restore native grassland habitat, and to improve fire resilience and habitat function in shrubland.

As discussed above, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented pursuant to SPR HYD-4, which would limit the extent of treatment activities within riparian habitat. SPR BIO-12 would be implemented for treatments that would occur during the nesting bird season and would result in identification and avoidance of any common bird nursery sites (e.g., heron rookeries, egret rookeries). Most live trees larger than 6 inches would be retained and pursuant to SPRs BIO-3, BIO-4, and BIO-5, treatments in sensitive natural communities, riparian habitat, chaparral habitat, and coastal scrub habitat, respectively, would be designed to maintain habitat function of these communities. Additionally, implementation of proposed treatments would not

result in any conversion of land cover or create permanent new barriers to wildlife movements within (locally) or across (regionally) the project area. With implementation of SPRs, habitat function within the project area would be maintained and there would not be a substantial change in the existing conditions that facilitate wildlife movement in the project area.

Surveys for special-status wildlife and nursery sites will be conducted pursuant to SPR BIO-10. If during surveys conducted pursuant to SPR BIO-10, wildlife nursery sites (e.g., heron rookeries, deer fawning areas, common bat roosts, monarch overwintering sites) are detected, Mitigation Measure BIO-5 would apply to all treatment activities and a no-disturbance buffer would be established around these features, the size of which would be determined by a qualified biological technician or RPF.

The potential for treatment activities to result in adverse effects on wildlife movement corridors and nurseries was examined in the Program EIR. This impact is within the scope of the Program EIR because, the types of wildlife movement corridors and nurseries that could be affected, the treatment activities, and extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, as described above, the potential impact on wildlife movement corridors is also the same. SPRs that apply to project impacts under Impact BIO-5 are BIO-1 through BIO-5, BIO-10, BIO-12, and HYD-4. The biological resources mitigation measure that applies to project impacts under Impact BIO-5 is Mitigation Measure BIO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-6

Initial treatment and maintenance treatments could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife, including nesting birds because nesting habitat suitable for birds is present throughout the project area. Potential impacts to common nesting birds would be addressed consistent with potential impacts to special-status nesting birds. See Impact BIO-2 for a discussion of special-status nesting birds.

The potential for treatment activities to result in adverse effects on these resources was examined in the Program EIR. The potential for adverse effects on common wildlife, including nesting birds, is within the scope of the Program EIR because, the treatment activities and extent of expected disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, as described above, the potential impact on common wildlife, including nesting birds is also the same. SPRs that apply to project impacts under Impact BIO-6 are BIO-1, BIO-2, BIO-3, BIO-4, BIO-5. and BIO-12. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-7

The potential for treatment activities to result in conflicts with local policies or ordinances was examined in the Program EIR. The Contra Costa General Plan Conservation Element contains several goals and policies related to biological resources applicable to the project (Contra Costa County 2005). This plan identifies goals for preservation of ecologically significant land, significant trees, and important wildlife habitats, as well as preservation of wildlife corridors, with priorities to retain mature native oak, bay, and buckeye trees. The proposed treatments include retention of mature, scenic, native trees, and if removal is required due to hazardous conditions, CSP would contact the County to coordinate on compliance with the relevant general plan. Additionally, important wildlife habitats and wildlife corridors will be preserved as discussed in Impacts BIO-1 through BIO-6. The proposed project activities

would be consistent with all regional and local policies, and there would be no conflict with local ordinances as a result of implementation of treatment activities.

The potential for treatment activities to conflict with local policies or ordinances was examined in the Program EIR. The potential for the treatment project is within the scope of the Program EIR because vegetation treatment projects implemented under the CalVTP that are subject to local policies or ordinances would be required to comply with any applicable county, city, or other local policies, ordinances, and permitting procedures related to protection of biological resources, per SPR AD-3. The inclusion of land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the project area boundary, the existing regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential for conflicts with local policies or ordinances is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-8

The project partially overlaps the East Contra Costa Natural Communities Conservation Plan/Habitat Conservation Plan (ECCCHCP) plan area. The ECCCHCP overlaps ecological restoration and fuel break treatment areas in the eastern side of the project area. Vegetation treatment activities that would be conducted during implementation the Mount Diablo SP Vegetation Treatment Project are not covered in the ECCCHCP; rather, the ECCCHCP was designed to cover urban development and management of specific preserves acquired in response to the ECCCHCP. For projects within the plan area of an adopted HCP or Natural Communities Conservation Plan (NCCP) that covers multiple projects and permittees (e.g., a regional or countywide multi-species HCP/NCCP, including ECCCHCP), and for activities specifically covered by the plan (i.e., covered activities) that may result in take of a species covered by the plan (i.e., covered species), an eligible applicant may obtain an incidental take permit (ITP) through voluntary participation in the HCP or NCCP if plan coverage/permit issuance is available; however, participation is generally not required.

The ECCCCHP discusses Mount Diablo SP to provide habitat setting and a basis for acquisition of new lands to provide wildlife connectivity through the park; vegetation treatment activities conducted by and in Mount Diablo SP are not covered in the ECCHCP. Mount Diablo Vegetation Treatment Project activities are not covered by or restricted by the ECCHCP, though the project area overlaps with the HCP's "inventory area." Therefore, implementation of the proposed vegetation treatment and maintenance activities would not result in a conflict with adopted HCP or NCCP. The project area also overlaps with the boundaries of Pacific Gas & Electric's (PG&E) Operations and Maintenance HCP (Bay Area O&M HCP), which covers the Sonoma, Marin, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco counties. PG&E's Bay Area O&M HCP applies only to work conducted by PG&E and does not apply to fuels reduction work conducted by CSP.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the project area boundary, the existing regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential for conflicts with an adopted HCP or NCCP is also the same. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW BIOLOGICAL RESOURCE IMPACTS

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the

project area, the existing environmental and regulatory conditions pertinent to biological resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the Program EIR. 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 not addressed in the Program EIR. Therefore, no new impact related to biological resources would occur that is not covered in the Program EIR.

4.6 GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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 through GEO-8 AQ-3 AQ-4 HYD-4	NA	LTS	No	Yes
Impact GEO-2: Increase Risk of Landslide	LTS	Impact GEO-2, pp. 3.7-29 – 3.7-30	Yes	AQ-3 GEO-3 GEO-4 GEO-7 GEO-8	NA	LTS	No	Yes

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

The project area is within the Coast Ranges geomorphic province, which is comprised of northwest-trending mountain ranges and valleys that are subparallel to the San Andreas Fault. The Coast Ranges are comprised of thick Mesozoic (200 to 70 million years old) and Cenozoic (less than 70 million years old) sedimentary strata (CGS 2002). Mount Diablo is a prominent feature in the Coast Ranges, with elevations that range from 300 to 3,849 feet (CSP 2000). The rock types of Mount Diablo consist of Mount Diablo ophiolite of Jurassic origin, Franciscan complex of Jurassic and Cretaceous origins, Great Valley Group of Jurassic and Cretaceous origins, and younger sedimentary rocks of Cenozoic origin (MDIA 2022).

The dominant soil types in the project area include rock outcrop-xerorthents association (31 percent of the project area); dibble silty clay loam, 30 to 50 percent slopes (14 percent of the project area); vallecitos loam, 30 to 50 percent slopes (14 percent of the project area); and Los Osos clay loam, 30 to 50 percent slopes, and Major Land Resource Area 15 (11 percent of the project area) (NRCS 2019). The hazard of erosion for these soil types ranges from moderate to very severe in areas of bare soils (NRCS 2019). Steep slopes (i.e., slopes greater than 50 percent) are present throughout the project area.

IMPACT GEO-1

Vegetation treatments would include fuel breaks and ecological restoration through use of manual treatments, mechanical treatments, prescribed burning, and targeted ground application of herbicides. These activities could result in varying levels of soil disturbance and have the potential to increase the rates of erosion and loss of topsoil. The potential for these treatment activities to cause substantial erosion or loss of topsoil was examined in the Program EIR. Mechanical treatments using heavy machinery are the most likely to cause soil disturbance that could lead to substantial erosion or loss of topsoil, especially in areas that contain steep slopes, or in areas that previously experienced fire. Due to steep slopes in the project area, heavy equipment would only be used in areas less than 30 percent slope and where access to the project area is also less than 30 percent slope. This impact is within the scope of the Program EIR because the use and type of equipment, extent of vegetation removal, and intensity of prescribed burning are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental 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 soil erosion is also the same, as described above. SPRs applicable to this treatment project are GEO-1 through GEO-8, HYD-4, AQ-3, and AQ-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT GEO-2

Treatment activities would include manual treatments, mechanical treatments, prescribed burning, and targeted ground application of herbicides. Areas within Mount Diablo SP are mapped within an earthquake-induced landslide zone by the California Geological Survey (CGS 2021), and landslides have been documented around the perimeter of Mount Diablo SP by the US Geological Survey (CGS 2015). As such, landslides have potential to occur within the project area. The potential for treatment activities to increase landslide risk was examined in the Program EIR. This impact is within the scope of the Program EIR because the extent of vegetation removal, intensity of prescribed burning, and characteristics of the geographical terrain are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. SPRs applicable to the proposed project are AQ-3, GEO-3, GEO-4, GEO-7, and GEO-8. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.7.1, "Environmental Setting," and Section 3.7.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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, soils, paleontology, or mineral resources would occur that is not covered in the Program EIR.

4.7 GREENHOUSE GAS EMISSIONS

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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	None	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

Notes: LTS = less than significant; PSU = potentially significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact; None = there are SPRs and/or MMs identified in the Program EIR 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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT GHG-1

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments 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 Program EIR. This impact is within the scope of the Program EIR because the proposed activities, as well as the associated equipment, duration of use, and resultant GHG emissions, are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. SPR GHG-1 is not applicable to the proposed project; CSP is not subject to the requirement to provide information to inform reporting under the Board of Forestry and Fire Protection's Assembly Bill 1504 Carbon Inventory Process because this project is not a registered offset project. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT GHG-2

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in GHG emissions. The potential for treatments under the CalVTP to generate GHG emissions was examined in the Program EIR. This impact was found to be potentially significant and unavoidable after the application of all feasible mitigation measures because of the infeasibility of implementing specific emission reduction techniques and the uncertainties associated with all the parameters and objectives of prescribed burning. Mitigation Measure GHG-2 in the CalVTP Program EIR requires project proponents to implement feasible methods to reduce the GHG emissions from prescribed burning, including pile burning. Accordingly, CSP is proposing the use of air curtain burners. The essential function of these specialized biomass processing technologies is to reduce smoke, and resultant GHG emissions compared to pile burning by consuming biomass quickly and efficiently. According to a 2020 study of biomass, air curtain burners emit 54 percent less CO_2 emissions compared to pile burning (Puettmann et al. 2020, as cited in Ascent 2022). In addition, the production of biochar by these technologies and subsequent application as a soil amendment provides long-term carbon sequestration benefits that are not available from pile burning.

This impact is within the scope of the Program EIR because the proposed activities, as well as the associated equipment and duration of use, and the intent of the treatments to reduce wildfire risk and GHG emissions related to wildfire are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. Mitigation Measure GHG-2 will be implemented by using air curtain burners when feasible to reduce GHG emissions associated with pile burning. Although use of specialized biomass processing technologies would substantially reduce GHG emissions, emissions generated by the treatment would still contribute to the annual emissions generated by the CalVTP, and this impact would remain potentially significant and unavoidable, consistent with, and for the same reasons described in, the Program EIR. SPR AQ-3 is also applicable to this treatment and contains the description of feasible GHG reduction techniques implemented per Mitigation Measure GHG-2. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS RELATED TO GHG EMISSIONS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP Program EIR (refer to Section 3.8.1, "Regulatory Setting," and Section 3.8.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

New Energy Resource Impacts: Would the treatment result in other impacts to energy resources that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT ENG-1

Use of vehicles and mechanical equipment during initial treatment and treatment maintenance activities would result in the consumption of energy through the use of fossil fuels. The use of fossil fuels for equipment and vehicles was examined in the Program EIR. The consumption of energy during implementation of the treatment project is within the scope of the Program EIR because the types of activities, as well as the associated equipment and duration of proposed use, are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the existing energy consumption is essentially the same within and outside the treatable landscape; therefore, the energy impact is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

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 conditions presented in the CalVTP Program EIR (refer to Section 3.9.1, "Regulatory Setting," and Section 3.9.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land outside the treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 energy resources would occur.

4.9 HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered In the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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 through HAZ-9	NA	LTS	No	Yes
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	LTSM	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	NA	HAZ-3	LTS	No	Yes

Notes: LTS = less than significant; LTSM = less than significant with mitigation; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT HAZ-1

Initial and maintenance treatments would include manual treatments, mechanical treatments, prescribed burning, and herbicide application. These treatment activities would require the use of fuels and related accelerants and herbicides, which are hazardous materials. The potential for treatment activities to cause a significant health hazard from the use of hazardous materials was examined in the Program EIR. This impact is within the scope of the Program EIR because the types of treatments and associated equipment and types of hazardous materials that would be used are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the exposure potential and regulatory conditions are essentially the same within and outside the treatable landscape; therefore, the hazards impact is also the same, as described above. SPR HAZ-1 is applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HAZ-2

Initial and maintenance treatments would include spot application of herbicides using ground-based methods, such as using a backpack sprayer. No aerial spraying of herbicides would occur. The potential for treatment activities to cause a significant health hazard from the use of herbicides was examined in the Program EIR. This impact is within the scope of the Program EIR because the types of herbicides (i.e., glyphosate, triclopyr) and application methods that would be used, which are limited to ground-based applications, are consistent with those analyzed in the Program EIR. In addition, herbicides would be applied by licensed applicators in compliance with all laws, regulations, and herbicide label instructions, consistent with herbicide use described in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the hazardous materials impact is also the same, as described above. SPRs HAZ-5 through HAZ-9 are applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HAZ-3

Initial and maintenance treatments would include soil disturbance and prescribed burning, which could expose workers or the environment to hazardous materials if a contaminated site is present within the project area. The potential for workers implementing treatment activities to encounter contamination that could expose them or the environment to hazardous materials was examined in the Program EIR. This impact was identified as potentially significant in the Program EIR because hazardous materials sites could be present within treatment sites, and soil disturbance or burning in those areas could expose people or the environment to hazards. As directed by Mitigation Measure HAZ-3, database searches for hazardous materials sites have been conducted, and no hazardous materials sites were identified within the project area (DTSC 2022; CalEPA 2016; SWRCB 2022). Two leaking underground storage tank cleanup sites are within 0.25 mile of the project area, located approximately 750 feet north and 640 feet northeast of where the nearest treatment activities would occur. However, the cleanup for these sites was completed and the cases were closed as of March 2006 and April 1995, respectively (SWRCB 2022). Therefore, the project would not result in disturbance to known hazardous materials sites and this impact would be less than significant. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. No SPRs are applicable to this impact, and no additional mitigation is required. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.10.1, "Environmental Setting," and Section 3.10.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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-4 BIO-4 BIO-5 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-4 HYD-5 GEO-1 through GEO-5 GEO-7 GEO-8 BIO-1 HAZ-1 HAZ-5	NA	LTS	No	Yes
Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory	LTS	Impact HYD-3, p. 3.11-29	No	--	--	--	--	--
Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the ground application of Herbicides	LTS	Impact HYD-4, pp. 3.11-30 – 3.11-31	Yes	HYD-5 BIO-4 HAZ-5 HAZ-7	NA	LTS	No	Yes

Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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-4 HYD-6 GEO-5	NA	LTS	No	Yes

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

New Hydrology and Water Quality Impacts: Would the treatment result in other impacts to hydrology and water quality that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

The western portion of the project area is within the Suisun Hydrologic Unit, which is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The eastern portion of the project area is within the North Diablo Range Hydrologic Unit, which is under the jurisdiction of the Central Valley RWQCB. Hydrologic features in the project area include West Fork Sycamore Creek, West Branch Alamo Creek, Tassajara Creek, Sycamore Creek, Pine Creek, Mount Diablo Creek, Mitchell Canyon Creek, Little Pine Creek, Green Valley Creek, East Fork Sycamore Creek, East Branch Green Valley Creek, Donner Creek, Deer Flat Creek, Back Creek, and Arroyo Del Cerro.

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

IMPACT HYD-1

Initial and maintenance treatments would include prescribed burning. Ash and debris from treatment areas could be washed by runoff into adjacent drainages and streams. Although most treatment areas would avoid streams and watercourses, WLPZs ranging from 50 to 150 feet would be implemented for Class I and Class II streams that are within treatment areas pursuant to SPR HYD-4. The potential for prescribed burning activities to cause runoff and violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of low-intensity prescribed burns and associated impacts to water quality are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also the same, as described above. SPRs applicable to this treatment are HYD-4, BIO-4, BIO-5, GEO-4, GEO-6, and AQ-3. This

determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-2

Initial treatment would include mechanical and manual treatments. Although most treatment areas would avoid streams and watercourses, WLPZs ranging from 50 to 150 feet would be implemented for any watercourses that are within treatment areas pursuant to SPR HYD-4. The potential for mechanical and manual treatment activities to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of heavy equipment and hand-held tools to remove vegetation and associated impacts to water quality are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from manual and mechanical treatments is also the same, as described above. SPRs applicable to this treatment are HYD-1, HYD-4, HYD-5, GEO-1 through GEO-5, GEO-7, GEO-8, BIO-1, HAZ-1, and HAZ-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-3

This impact does not apply to the proposed project because prescribed herbivory is not a proposed treatment activity.

IMPACT HYD-4

Initial and maintenance treatments would include the use of herbicides to manage invasive species, such as mustards and thistles, that typically grow in disturbed areas after fires. Herbicide application would be limited to ground-based methods, such as spot herbicide application using backpack sprayers. All herbicide application would comply with EPA and California Department of Pesticide Regulation label standards. The potential for the use of herbicides to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of herbicides to remove vegetation and associated impacts to water quality are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from use of herbicides is also the same, as described above. SPRs applicable to this treatment are HYD-5, BIO-4, HAZ-5, and HAZ-7. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-5

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. The potential for treatment activities to substantially alter the existing drainage pattern of a project site was examined in the Program EIR. This impact to site drainage is within the scope of the Program EIR because the types of treatments and treatment intensity are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the impact related to alteration of site drainage patterns is also the same, as described above. SPRs applicable to this treatment are HYD-4, HYD-6, and GEO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HYDROLOGY AND WATER QUALITY IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.11.1, "Environmental Setting," and Section 3.11.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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	NA	LTS	No	Yes

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

New Land Use and Planning, Population and Housing Impacts: Would the treatment result in other impacts to land use and planning, population and housing that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT LU-1

Initial treatment and treatment maintenance activities would occur on property owned by CSP. Treatment activities would occur during the daytime on weekdays, typically between approximately 7:30 a.m. and 5:30 p.m., except for prescribed burning. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using equipment would be typically be limited to 7:30 a.m. to 5:30 p.m. Monday through Friday, which would avoid the potential to cause sleep disturbance to nearby residents during the more noise-sensitive evening and nighttime hours. The potential for vegetation treatment activities to cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation was examined in the Program EIR. This impact is within the scope of the Program EIR because the treatment types and activities are consistent with those analyzed in the Program EIR. No conflict would occur because the project proponent would adhere to SPR AD-3. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the Program EIR. However, land uses in the project area are essentially the same within and outside the treatable landscape; therefore, the land use impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

IMPACT LU-2

Implementation of initial treatments would require between 1 and 20 crew members depending on the treatment, with up to four crews conducting treatments simultaneously throughout the project area. The potential for initial treatments and maintenance treatments to result in substantial unplanned population growth as a result of increases in demand for employees was examined in the Program EIR. Impacts associated with short-term increases in the demand for workers during implementation of the treatment project are within the scope of the Program EIR because the number of workers required for implementation of the treatments is consistent with the crew size analyzed in the Program EIR for the types of treatments proposed (i.e., 10–50 workers for prescribed burns, one to 50 crew members, and up to four crews for mechanical and manual treatments, and up to 10 workers for herbicide treatments). In addition, the proposed project would not require the hiring of new employees. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW LAND USE AND PLANNING, POPULATION AND HOUSING IMPACTS

The proposed project is consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.12.1, "Environmental Setting," and Section 3.12.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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 through NOI-6	NA	LTS	No	Yes
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated Single-Event Noise Levels During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	Yes	NOI-1	NA	LTS	No	Yes

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

New Noise Impacts: Would the treatment result in other noise-related impacts that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT NOI-1

Mechanical treatments would require heavy, noise-generating equipment and prescribed burning that may require use of helicopters equipped with a helitorch. Manual, mechanical, and prescribed burning treatment activities as well as chipping/mastication and pile burning occurring adjacent to sensitive land uses could temporarily expose those receptors to noise levels that exceed local standards. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment and helicopters was examined in the Program EIR. This impact is within the scope of the Program EIR because the number and types of equipment proposed, and equipment use being temporary and sporadic, are consistent with the assumptions analyzed in the Program EIR.

Contra Costa County does not have a noise ordinance. As discussed in the Program EIR, noise levels generated by individual equipment range from 75 to 91.8 dB at 50 feet from the noise source. Though multiple pieces of equipment would be operated simultaneously to implement a treatment, they would typically be spread out (i.e., usually more than 100 feet apart) rather than operating next to each other. This is particularly true of larger, heavy-duty off-road equipment such as masticators and chippers. Due to the inherently remote nature of the treatment areas within which prescribed burning by helitorch would be used, it is assumed that noise-sensitive receptors would not be located in close proximity to the vegetation treatment site. In addition, the helicopter and helitorch would only be used to ignite prescribed burns; and thus, total helicopter usage would be very limited. Noise-generating

equipment would be used intermittently between 7:30 a.m. and 5:30 p.m. during treatment (except for prescribed burning). While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using noise-generating equipment (including helicopters) would be limited to 7:30 a.m. and 5:30 p.m. Monday through Friday, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours.

Although operation of equipment would temporarily and intermittently generate elevated noise during daytime hours, the interior noise standard is an average that considers daytime and nighttime noise levels, and when averaged with the noise levels during the quiet nighttime hours, it is reasonably expected that noise generated during treatments would not exceed the local Ldn threshold. In addition, treatments would only occur outside of the 100-foot defensible space requirement described in PRC 4291 and therefore, would not occur within 100 feet of sensitive receptors. The equipment noise levels discussed above are at 50 feet from the noise source. Therefore, there would be additional attenuation for distance, vegetation, and building materials that would result in interior noise levels being lower than the 75 to 91.8 dB levels estimated for equipment. Treatments would also be dispersed throughout the 7,510-acre project area so that short-term noise increases at any one sensitive receptor would be limited.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the exposure potential to any 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 the same, as described above. SPRs AD-3 and NOI-1 through NOI-5 are applicable to this treatment. With implementation of SPR AD-3, noise levels associated with vegetation treatment activities under the CalVTP would not exceed local land use/noise compatibility standards and noise exposure attributed to vegetation treatment activities under the CalVTP would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of local standards. For any sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) that are within 1,500 feet of a treatment area, SPR NOI-6 would also apply. There are residences adjacent to Mount Diablo SP that could be within 1,500 feet of proposed treatments. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT NOI-2

Initial and maintenance treatments would involve large trucks hauling heavy equipment to the project area. These haul truck trips would be dispersed on area roadways providing access to the project area including, but not limited to, SR 4, SR 24, I-680, Meridian Ridge Road, Marsh Creek Road, Mitchell Canyon Fire Road, Deer Flat Road, Moses Rock Ridge, North Gate Road, Curry Clayton Road, Morgan Territory Road, Stone Valley Road, Knobcone Point Road, Black Hawk Ridge Road, Wall Point Road, Summit Trail Road, and Summit Road. Vehicle traffic on area highways is not expected to generate a noticeable increase in traffic-related noise. Haul truck trips on the local roadways would pass by residential receptors and the event of each truck passing by could increase the single event noise levels. The potential for a substantial short-term increase in Single-Event Noise Levels was examined in the Program EIR. This impact is within the scope of the Program EIR because the number and types of equipment proposed are consistent with those analyzed in the Program EIR. The haul trips associated with the treatment would occur during daytime hours, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. SPR NOI-1 is applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW NOISE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.13.1, "Environmental Setting," and Section 3.13.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
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	REC-1	NA	LTS	No	Yes

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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

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

Discussion

The project area is within Mount Diablo SP, an approximately 20,000-acre park and open space operated by the CSP. Mount Diablo SP offers a variety of outdoor recreational activities, with amenities that include a visitor center with interpretive exhibits, an observation deck, scenic overlooks, trails, campgrounds, picnic sites, and climbing rocks. Treatment activities are proposed along existing hiking trails and fire roads throughout Mount Diablo SP. These trails and fire roads include, but are not limited to, Black Point Trail, Black Creek Trail, Donner Creek Fire Road, Summit Trail, Amphitheater Trail, Angel Kerley Road, Briones to Mount Diablo Regional Trail, Wall Point Road Trail, Rocky City Trail, Fossil Ridge Road, Black Sage Road, Riggs Canyon Road, Old Finley Road, Highland Ridge Road, and Mt. Olympia Road. Additionally, treatment activities are proposed along existing roadways that provide public vehicle access to and within Mount Diablo SP. Treatment activities would also occur within or in the vicinity of recreational amenities in Mount Diablo SP, including Juniper Campground, Diablo Valley Overlook, Mitchell Canyon Visitor Center, Three Springs Staging Area, Buckeye Group Camp, Live Oak Campground, Rock City Park, Boy Scout Rocks, and Curry Point.

IMPACT REC-1

Vegetation treatment activities have the potential to disrupt recreational activities within the project area through temporary trail closures during active treatments and by degrading the experience of recreationists through the creation of noise, dust, degradation of scenic views, or increased traffic. The potential for vegetation treatment activities to disrupt recreation activities was examined in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. The SPR applicable to this treatment is REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW RECREATION IMPACTS

The proposed project is consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.14.1, "Environmental Setting," and Section 3.14.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Impact TRAN-1, pp. 3.15-9 – 3.15-10	Yes	AD-3 TRAN-1	NA	LTS	No	Yes
Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses	LTS	Impact TRAN-2, pp. 3.15-10 – 3.15-11	Yes	AD-3 HYD-2 TRAN-1	NA	LTS	No	Yes
Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP	PSU	Impact TRAN-3, pp. 3.15-11 – 3.15-13	Yes	NA	AQ-1	PSU	No	Yes

Notes: LTS = less than significant; PSU = potentially significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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

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

Discussion

IMPACT TRAN-1

Initial and maintenance treatments would temporarily increase vehicular traffic along public and private roadways throughout the project area, which include, but are not limited to the following: Meridian Ridge Road, Marsh Creek Road, Mitchell Canyon Fire Road, Deer Flat Road, Moses Rock Ridge, North Gate Road, Curry Clayton Road, Morgan Territory Road, Stone Valley Road, Knobcone Point Road, Black Hawk Ridge Road, Wall Point Road, Summit Trail Road, and Summit Road. The potential for a temporary increase in traffic to conflict with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures was examined in the Program EIR. The proposed treatments would be short term, and temporary increases in traffic related to treatments are within the scope of the Program EIR because the treatment duration and limited number of vehicles (e.g., heavy equipment transport, crew vehicles for crew members) associated with the proposed treatments are consistent with those analyzed in the Program EIR. In addition, the proposed treatments would not all occur concurrently, and increases in vehicle trips associated with the treatments would be dispersed on multiple roadways. The inclusion of land in the proposed

project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. The SPRs applicable to this treatment are AD-3 and TRAN-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT TRAN-2

Initial and maintenance treatments would not require the construction or alteration of any roadways. However, the proposed treatments would include prescribed burning, which would produce smoke and could potentially affect visibility along nearby roadways such that a transportation hazard could occur. The potential for smoke to affect visibility along roadways during implementation of the treatment project was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the burn duration is consistent with that analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 the same, as described above. SPRs applicable to this treatment are AD-3, HYD-2, and TRAN-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT TRAN-3

Treatments could temporarily increase vehicle miles traveled (VMT) above baseline conditions because the proposed project would require vehicle trips to transport crew members and equipment to the project area. This impact was identified as potentially significant and unavoidable in the Program EIR because implementation of the CalVTP would result in a net increase in VMT. Manual and mechanical treatments and prescribed burning under the proposed project would typically require between 1 and 20 crew members depending on the treatment, with up to four crews conducting treatments simultaneously. The potential for an increase in VMT on affected roadways during implementation of the treatment project was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the size and number of crews is consistent with that analyzed in the Program EIR. The increase in vehicle trips would be temporary and dispersed over multiple roadways. A temporary increase in VMT is within the scope of the activities and impacts addressed in the Program EIR because the number and duration of increased vehicle trips are consistent with that analyzed in the Program EIR. In addition, carpooling would be encouraged under Mitigation Measure AQ-1. However, the proposed project would contribute to the cumulative increase in VMT attributable to implementation of the CalVTP. For these reasons, and as explained in the Program EIR, this impact would remain potentially significant and unavoidable. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the transportation-related conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON TRANSPORTATION

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.15.1, "Environmental Setting," and Section 3.15.2, "Regulatory Setting," in Volume II of

the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. 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 transportation would occur.

4.15 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

Notes: LTS = less than significant; PSU = potentially significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

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 Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT UTIL-1

Initial and maintenance treatments would include prescribed burning, which would require an on-site water supply (water tenders) to be available as a safety precaution. If needed to extinguish the burn, water would be supplied from water tenders. The potential increased demand for water was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the size of the area proposed for prescribed burn treatments, amount of water required for prescribed burning, and water source type are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the water supplies present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the water supply impact is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-2

Initial and maintenance treatments would generate biomass within the project area. Biomass generated by mechanical and manual treatments would be disposed of with pile burning, broadcast burning, masticating (mulching), chipping, or lopping and scattering biomass in areas where material cannot safely be burned. Invasive plant and noxious weed biomass would also be treated onsite (e.g., prescribed burning), when possible, to eliminate seed and propagules; however, invasive plants and noxious weeds would not be chipped and spread, scattered, or mulched onsite. If invasive plant biomass cannot be treated onsite, there is the potential for a small amount to be disposed of offsite at an appropriate waste collection facility. This impact was identified as potentially significant and unavoidable in the Program EIR because biomass hauled off-site could exceed the capacity of existing infrastructure for handling biomass. For the proposed treatment project, it is anticipated that no more than 10 percent of the biomass would be hauled off-site. While the amount of biomass generated is not expected to exceed the capacity of existing local infrastructure in Contra Costa County because the project would generate biomass needing offsite disposal, it would contribute to the environmental significance conclusion in the Program EIR; therefore, for purposes of CEQA compliance, this PSA/Addendum notes the impact as potentially significant and unavoidable. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, conditions related to biomass in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above. SPR UTIL-1 would be applicable to the proposed treatments for biomass that would be hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-3

As discussed above, initial and maintenance treatments would generate biomass within the project area. Biomass generated by mechanical and manual treatments would be disposed of with pile burning, broadcast burning, masticating (mulching), chipping, or lopping and scattering biomass in areas where material cannot safely be burned. Invasive plant and noxious weed biomass would also be treated onsite (e.g., prescribed burning), when possible, to eliminate seed and propagules; however, invasive plants and noxious weeds would not be chipped and spread, scattered, or mulched onsite. If invasive plant biomass cannot be treated onsite, there is the potential for a small amount to be disposed of offsite at an appropriate waste collection facility. If offsite disposal is needed, CSP would comply with all federal, state, and local management and reduction goals, statutes, and regulations related to solid waste. Compliance with reduction goals, statutes, and regulations related to solid waste was examined in the

Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the type and amount of biomass that may need to be hauled off-site are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the biomass conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above. SPR UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.16.1, "Environmental Setting," and Section 3.16.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to public services, utilities, and service systems 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 Program EIR. 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, or service systems would occur.

4.16 WILDFIRE

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	LTS	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 Postfire Flooding or Landslides	LTS	Impact WIL-2, pp. 3.17-15 – 3.17-16	Yes	AQ-3 GEO-3 GEO-4 GEO-5 GEO-8	NA	LTS	No	Yes

Notes: LTS = less than significant; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact.

New Wildfire Impacts: Would the treatment result in other impacts related to wildfire that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT WIL-1

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

The potential increase in exposure to wildfire during implementation of treatments was examined in the Program EIR. Increased wildfire risk associated with the use of heavy equipment in vegetated areas and with prescribed burns is within the scope of the Program EIR because the types of equipment and treatment duration and the types of prescribed burn methods proposed as part of the project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the wildfire

risk is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. SPRs applicable to this treatment are HAZ-2, HAZ-3, and HAZ-4. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT WIL-2

Vegetation treatment types would include manual treatments, mechanical treatments, prescribed burning, and herbicide application, which could exacerbate fire risk as described in Impact WIL-1 above. The potential for post-fire landslides and flooding was evaluated in the Program EIR. 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 Program EIR because the equipment types, duration of treatments, and methods of prescribed burn implementation are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the wildfire risk of the project area is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. SPRs applicable to this impact are AQ-3, GEO-3 through GEO-5, and GEO-8. Although most mechanical treatments would occur from existing roads or skid trails or on flat to moderate slopes, SPR GEO-8 would apply if a project area contains steep slopes. Furthermore, because the treatments reduce wildfire risk, they would also decrease post wildfire landslide and flooding risk in areas that could otherwise burn in a high-severity wildfire without treatment. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON WILDFIRE

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. 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 Program EIR (refer to Section 3.17.1, "Environmental Setting," and Section 3.17.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. 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 Program EIR. No changed circumstances would give rise to new significant impacts not addressed in the Program EIR. Therefore, no new impact related to wildfire would occur that is not covered in the Program EIR.

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