PROJECT-SPECIFIC ANALYSIS AND ADDENDUM TO THE CALVTP PROGRAM EIR

Cosumnes Ladder Fuel Reduction Project

Prepared for:

SACRAMENTO COUNTY

County of Sacramento
Department of Regional Parks

August 2023

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TABLE OF CONTENTS

Attachments

Figures

Tables

LIST OF ABBREVIATIONS

Board	California Board of Forestry and Fire Protection
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalVTP	California Vegetation Treatment Program
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
DPR	Department of Pesticide Regulation
EPA	US Environmental Protection Agency
GHG	greenhouse gas
LRA	Local Responsibility Area
MMRP	mitigation monitoring and reporting program
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NOA	naturally occurring asbestos
PCA	pest control advisor
PCR	pest control recommendation
Program EIR	Program Environmental Impact Report
proposed project	Cosumnes Ladder Fuel Reduction Project
PSA	Project-Specific Analysis
PSA/Addendum	Project-Specific Analysis and Addendum to the Program EIR
SMAQMD	Sacramento Metropolitan Air Quality Management District
SOD	sudden oak death (*Phytophthora ramorum*)
SPR	standard project requirement
SR	State Route
SRA	State Responsibility Area
WLPZ	Watercourse and Lake Protection Zone
WUI	wildland urban interface

1 INTRODUCTION

1.1 PROJECT OVERVIEW AND DOCUMENT PURPOSE

The California Board of Forestry and Fire Protection (Board) certified the Program Environmental Impact Report (Program EIR) for the California Vegetation Treatment Program (CalVTP) in December 2019. The Program EIR evaluates the potential environmental effects of implementing vegetation treatments throughout the State Responsibility Area (SRA) in California. This document is a Project-Specific Analysis (PSA) and Addendum to the Program EIR (PSA/Addendum). The PSA process was designed during Program EIR preparation for use by many state, special district, and local agencies to help increase the pace and scale of vegetation treatment by employing California Environmental Quality Act (CEQA) streamlining tools, i.e., a within-the-scope finding based on the PSA. An Addendum to the Program EIR is another CEQA streamlining tool designed to address those project components that are not within the scope of the Program EIR. This PSA/Addendum comprises the joint implementation of these CEQA streamlining tools in a single document.

1.1.1 Proposed Project Summary

County of Sacramento, Department of Regional Parks proposes to implement wildland urban interface (WUI) fuel reduction and ecological vegetation treatments on up to 1,843.7 acres of land (Cosumnes Ladder Fuel Reduction Project or proposed project) in Sacramento County (Figure 1-1) using manual treatments, mechanical treatments, and herbicide application. Maintenance treatments would involve the same vegetation treatment types and activities used in the initial treatments. The proposed treatment types and the treatment activities are consistent with those evaluated in the CalVTP Program EIR.

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, or implement vegetation treatments consistent with the CalVTP. This document is being prepared for Sacramento County to comply with CEQA for the implementation of vegetation treatments that require a discretionary action by a state or local agency. Sacramento County is the project proponent and CEQA lead agency.

1.1.3 Purpose of This PSA/Addendum

This document serves as a PSA/Addendum to evaluate whether the proposed treatments would be within the scope of the CalVTP Program EIR. As stated above, the treatment types and treatment activities are consistent with the CalVTP. 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).An Addendum to an EIR is appropriate where 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 and adjacent to the CalVTP treatable landscape. Additionally, a proposed change to a mitigation measure is warranted due to a project circumstances. The PSA checklist (refer to Chapter 4, "Project-Specific Analysis/Addendum") includes the criteria to support an Addendum to the CalVTP Program EIR for the inclusion of treatment areas outside the CalVTP treatable landscape and the revision to a mitigation measures. The checklist evaluates each resource in terms

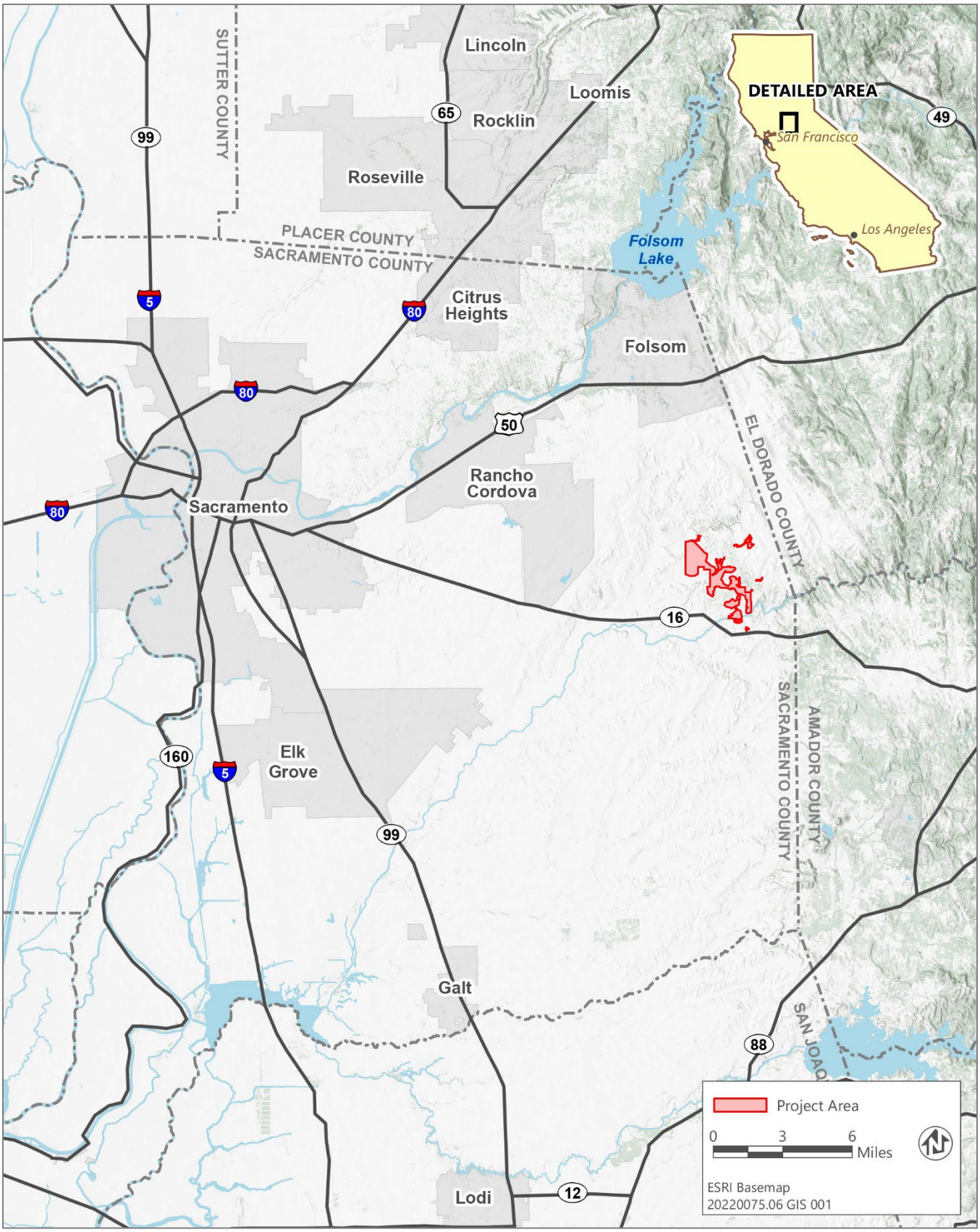
of whether the later treatment project, including the "changed condition" of additional geographic area, would result in significant impacts that would be substantially more severe than those covered in the Program EIR or would result in any new impacts that were not covered in the Program EIR. If a new impact arises, the checklist analysis would provide substantial evidence about whether it would be a significant or potentially significant impact. If the new impact would not be significant, it could be addressed in the addendum to the Program EIR.

This document serves as both a PSA and an Addendum to the CalVTP Program EIR for Sacramento County review and analysis under CEQA regarding the proposed Cosumnes Ladder Fuel Reduction Project within and outside the treatable landscape covered by the Program EIR, including the proposed revision to a mitigation measure. It provides environmental information supported by substantial evidence to Sacramento County in its consideration of approving implementation of the work by Sacramento County 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 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.

PROPOSED PROJECT REVISIONS

Project Area Outside the CalVTP Treatable Landscape

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). 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 297 acres of the 1,844-acre project area; they are small sections dispersed throughout the project area (refer to Chapter 2, "Treatment Description"). The scattered array of acres outside of the mapped CalVTP treatable landscape is due to the digital expression of the CalVTP treatable landscape that resulted in a pixelated mapping resolution. Using desktop applications to apply buffers around geographic and topographic features and demarcate jurisdictional boundaries (i.e., SRA and Local



Sources: Data received from Sacramento County in 2022; adapted by Ascent in 2022

Figure 1-1 Regional Location

Responsibility Area [LRA]), the method resulted in some treatable landscape areas that are shown on maps to be disjoined and scattered and some that are inheld areas surrounded by the mapped treatable landscape. 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 to the adjacent areas.

Proposed Revisions to CalVTP Mitigation Measure BIO-4

While the proposed treatment types and treatment activities are consistent with the CalVTP, Sacramento County has deemed that certain requirements of Mitigation Measure BIO-4 are not warranted to maintain the impact significance conclusions in the Program EIR, and, if implemented as presented in the Program EIR, would prevent Sacramento County from meeting treatment objectives to control nonnative plant species and reduce fine fuels within grassland habitats. CEQA Guidelines Section 15168(c)(3) requires incorporation of feasible mitigation when approving later activities. If the mitigation measure is simply "incorporated" (i.e., without revision), it would contribute to a within the scope finding. If revisions to a mitigation measure are proposed, it could be evaluated within an Addendum pursuant to CEQA Guidelines Section 15164. This can occur either because the change is simply a clarification or other revision that does not meet the requirements for supplemental or subsequent review in CEQA Guidelines Section 15162; or it is a case, as explained in CEQA Guidelines Section 15162(a)(3)(D), where a mitigation measure is "considerably different" from those in the Program EIR, would substantially reduce significant effect(s), and the proponent will adopt it as part of the project.

As presented in the Program EIR, Mitigation Measure BIO-4 contains a prohibition of broadcast burning within wetlands when special-status species are present. Sacramento County is proposing to revise Mitigation Measure BIO-4 to allow broadcast burning within vernal pools if conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are present or assumed to be present pursuant to SPR BIO-10. The use of broadcast burning in vernal pools that provide suitable habitat for conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp would allow for restoration of vernal pools where these species are present and would avoid the need for additional control lines to prevent broadcast burning from entering these vernal pools, thereby reducing ground disturbance.

Potential impacts resulting from revisions to Mitigation Measure BIO-4 are discussed below under Section 4.5, “Biological Resources.” As explained in this section, the proposed revisions to Mitigation Measure BIO-4 would not result in any new or substantially more severe significant impacts than were analyzed in the Program EIR. Impacts on other resources would not occur as a result of this revision, because Mitigation Measure BIO-4 is not required to reduce environmental effects to any other resources from implementation of the project. The proposed revisions to Mitigation Measure BIO-4 are shown in underline and strikethrough in the MMRP (Attachment A).

1.2 PROJECT BACKGROUND AND OBJECTIVES

1.2.1 Background and Need for the Project

The primary goal of this proposed project is to protect lives and property that are currently at risk from wildfire. The project would protect the community of Rancho Murieta, as well as local ranches, Deer Creek Hills Preserve and the areas south and west of the Deer Creek Hills Preserve, and the surrounding communities in the Sloughhouse area. Rancho Murieta is a community in the WUI containing over 2,600 residences with a County assessor’s value of over $1.2 billion in improvements. The 2021 California Department of Forestry and Fire Protection (CAL FIRE) Amador El Dorado Unit Strategic Fire Plan identifies Rancho Murieta as a Community at Risk, based on areas of intermingled wildland fuels and urban development that are near fire threats. The project area is likely to experience fires that run from north to south; this is especially true during red flag fire weather conditions when strong north winds are predicted. The project is located within CAL FIRE’s Amador El Dorado unit; CAL FIRE is responsible for providing wildland fire protection while Sacramento Metropolitan Fire is responsible for the structure protection of this area. The project area is in a high Fire Hazard Severity Zone as designated by CAL FIRE (CAL FIRE 2022).

More people are living and recreating in WUI areas, which leads to more ignitions, resulting in more fires; CAL FIRE has found that 95 percent of all ignitions are human caused (2021 CAL FIRE Amador El Dorado Unit Strategic Fire Plan). Over the past twenty years, population growth and development in the wildland have placed many additional homes and businesses at risk. Fires that pose risk in the wildland-urban interface (WUI) (e.g., Rancho Murieta) typically are fast-moving, driven by wind events and move through high fuel loads in and around communities.

1.2.2 Project Objectives

The goal of this project is to protect lives and property by reducing the ladder fuels that enable a ground fire to transition to a crown fire, thereby creating embers that could be blown in the adjacent community resulting in loss of property and possibly life.

In addition, the project would promote forest and woodland health by raising and thinning the canopies of the oak woodland, remove understory shrubs and accumulated ground fuels, while maintaining habitat for wildlife and forage for ranching operations.

The project's primary objectives are to:

- Reduce ladder fuels in Rancho Murieta and in the surrounding WUI. This includes land jointly owned by the State, County, and Sacramento Valley Conservancy, as well as privately held ranches and lands.
- Establish native trees on the Deer Creek Hills Preserve.
- Control invasive plant species.

The project would remove fuel loads that have accumulated over 100 years of fire suppression and allow the reintroduction of fire in the form of controlled burns. A species of particular interest to preserve in the project area is blue oak (*Quercus douglasii*); blue oaks dominated the area prior to the mining activity which began in the late 1800s. Many of the disturbed areas are now dominated by interior live oak (*Quercus wislizeni*).

It has been observed that blue oak woodlands throughout California, including the Sacramento Valley and adjacent foothills, have been experiencing insufficient recruitment rates over the past several decades to maintain existing stand structure (McCreary 2009). Among the causes of poor sapling recruitment are thought to be the proliferation of introduced annual grasses and forbs that compete with oak seedlings and saplings for soil moisture, and changes in the fire regime in blue oak woodlands. Prior to European settlement, naturally occurring fires were generally allowed to burn with no attempts at suppression. Additionally, Indigenous people regularly used fire to maintain open hunting grounds, stimulate germination and sprouting of native plants with cultural uses, and control insects that affect acorns (McCreary 2009). Intensive fire suppression efforts over the last 100 years have drastically reduced fire frequency in blue oak woodlands allowing the development of dense annual herb cover and associated thatch buildup that inhibits oak recruitment (Mensing 1992). The effects of climate change (e.g., prolonged periods of drought and higher temperatures during the growing season) have put additional pressures on oak seedlings and saplings, compounding regeneration problems (Bayer, Schrom, and Schwan 1999).

Community assets at risk, which the proposed project would aim to protect, include electrical infrastructure that serves Rancho Murieta and surrounding communities, the water treatment plant managed by the Rancho Murieta Community Services District, the sewage treatment plant, the Rancho Murieta airport, the Rancho Murieta equestrian center, commercial centers in Rancho Murieta, and Sacramento Metropolitan Fire District Station 59. This project would also reduce fuel loads on properties adjacent to the Van Vleck Ranch which hosts the communication towers that provide radio communications for all emergency services in eastern Sacramento County, including fire and sheriff voice and data communications.

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2 TREATMENT DESCRIPTION

The proposed project consists of vegetation treatments in eastern Sacramento County between the northern boundary of the Deer Creek Hills Preserve and State Route (SR) 16 to the south in Sloughhouse, California (Figure 2-1). The proposed project surrounds the community of Rancho Murieta, which is part of the greater Sloughhouse community. The elevation of the project ranges from 150 feet to 500 feet above sea level. The project lies at the base of the Cosumnes River basin, which is used by water agencies and power companies for generation of hydroelectric power and as a drinking and irrigation water supply. The treatment area includes land under CAL FIRE's direct protection owned by the California State Parks, the County of Sacramento, the Sacramento Valley Conservancy in the Deer Creek Hills Preserve, and private landowners. The proposed project would protect over $1.2 billion of structures and over 2,600 residences in the Rancho Murieta and Sloughhouse communities.

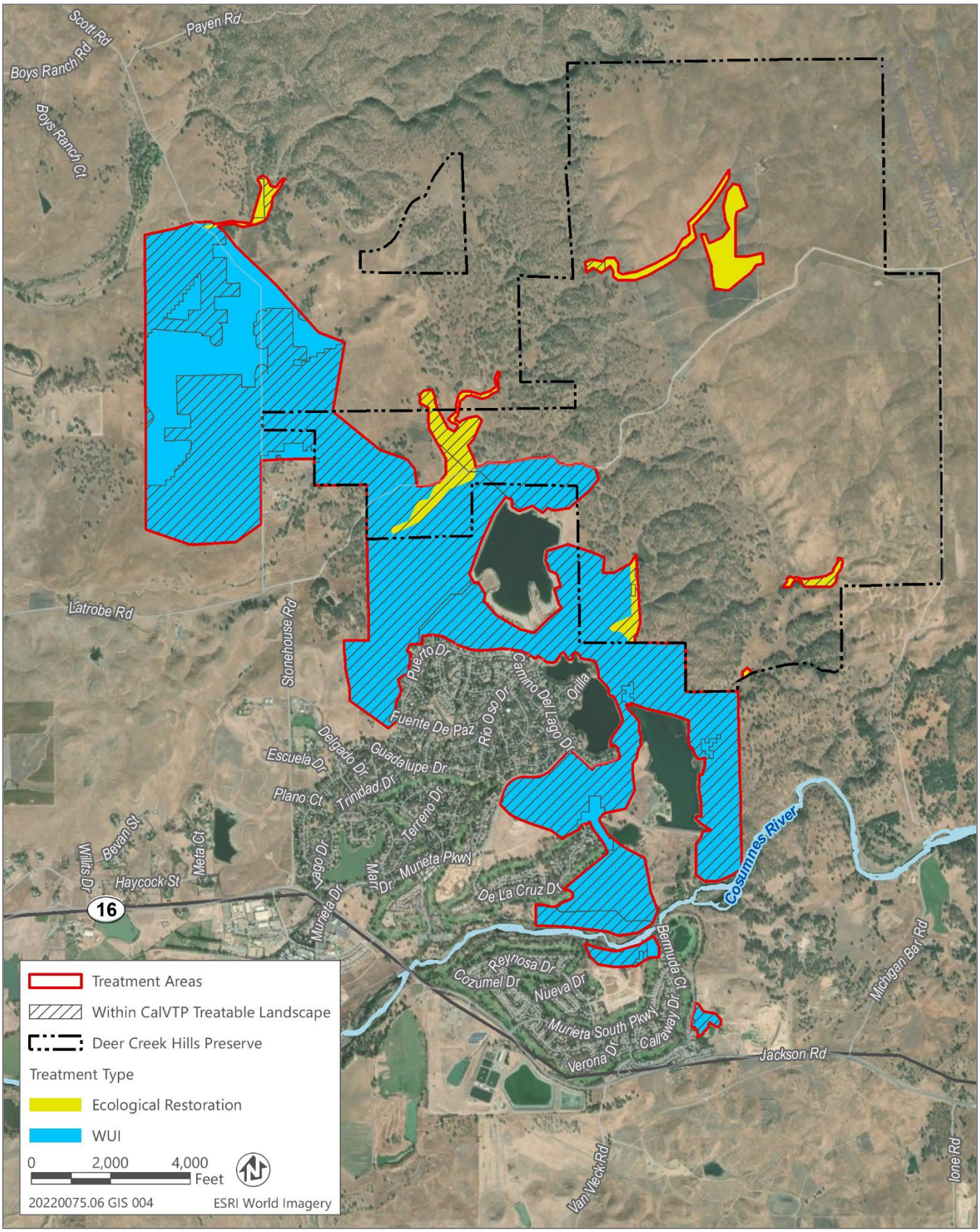
The proposed treatment types are WUI fuel reduction and ecological restoration treatments. The proposed treatment activities are mechanical vegetation treatment (mastication, chipping); manual vegetation treatment (hand-thinning, pruning, piling, and hand planting) prescribed burning (broadcast/under burning, pile burning); and herbicide application (hand application, including paint-on-stems and using backpack hand applicators). Locations of proposed treatment types are shown in Figure 2-1. Table 2-1 provides summaries of treatments.

2.1 PROJECT AREA

Current Conditions in the Project Area

As discussed above, the project site includes lands owned by California State Parks, the County of Sacramento, the Sacramento Valley Conservancy in the Deer Creek Hills Preserve and private land owners. Generally, land within the project site consists of rural land uses as well as recreational uses associated with the Deer Creek Hills Preserve (see Figure 2-1). Deer Creek Hills Preserve is comprised of 4,551,7 acres located along the eastern boundary of Sacramento County. The Deer Creek Hills Preserve is bordered on the west by Scott Road and on the east by Michigan Bar Road. The Rancho Murieta community is situated immediately south of the Deer Creek Hills Preserve property. The Deer Creek Hills Preserve consists of gently rolling hills covered primarily by a mix of annual grasslands and varying densities of blue oak woodlands and forest, but also supporting interior live oak woodland and forest, as well as water impounds for cattle grazing, intermittent and perennial streams and attendant riparian habitat, and vernal pools. The land is an active working landscape with beef-cattle grazing occurring in the spring and winter months (Sacramento County 2009).

Blue oak woodland is the main vegetation type found within the project area, followed closely by annual grassland. However, the condition and composition of blue oak woodland stands are highly variable due to historic mining activity (hydraulic and dredging), grazing, fire suppression, and subdivision development. Vegetation in riparian areas that run adjacent to Crevis Creek, Deer Creek, and the Cosumnes River within the project area are more dominated by riparian species such as cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), willow (*Salix* ssp.*)*, valley oak (*Quercus lobota*), and Himalayan blackberry (*Rubus armeniacus)*. Much of the area that was affected by mining activity is now dominated by interior live oak (*Quercus wislizeni*), with an occasional gray pine *(Pinus sabiniana*) in the overstory and clumps of coyote bush (*Baccharis pilularis)* in the understory. Other overstory tree species within the project site includes California buckeye *(Aesculus californica),* coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), and California black oak (*Quercus kelloggii*), and other shrub species include poison-oak (*Toxicodendron pubescens)*, California coffeeberry (*Frangula californica*), and several species of ceanothus *(Ceanothus* ssp.*)* and manzanita *(Arctostaphylos* ssp.*).*



Sources: Data received from Sacramento County in 2022; adapted by Ascent in 2022.

Figure 2-1 Proposed Project Treatments

Annual grasslands and the understory of oak woodlands in the project area are heavily infested by invasive annual grasses and forbs that compete with native perennial herbs, as well as oak seedlings, for water, light, and nutrients. Annual grasses such as medusahead (*Elymus caput-medusae*) create thick thatch buildup from years of dead biomass accumulation and increases the risk of more intense fires. Thatch accumulation suppresses regeneration of native grasses and forbs, as well as oak trees. Invasive annual grasses such as medusahead and bromes (*Bromus* spp.), and oats (*Avena* spp.) germinate in winter and can deplete soil moisture before many of the native perennial species start growing. When these annual species become established in vernal pool grassland complexes, they can alter hydrologic regimes and adversely affect the structure, function, and species diversity of both the upland and vernal pool plant communities.

Land use in the area surrounding the Deer Creek Preserve is primarily agricultural except for the Rancho Murieta community, which is a planned community development. Two additional exceptions to the primarily agricultural land uses in the region include the Carson Creek Boys Ranch, a facility once used to hold young male wards of the State and the County Kiefer Landfill facility, which is located at the junction of Grant Line Road and Kiefer Boulevard (10 miles due west of the project area).

FIRE HISTORY

Fire history in the region is dominated by small fires with large fires occurring every ten to thirty years. The largest fires that occurred in the area were the Quarry fire in 1976 which burned 20,870 acres (north and east of the project area) and the Meiss fire (due south of the project area) in 1981 which burned 14,126 acres. In 1996, the Scott fire burned a large portion of the Deer Creek Hills Preserve. Most recently, the Latrobe Fire in July 26, 2017 burned 1,268 acres and the Largo Fire in July 30, 2017 burned 236 acres, and the Grant Fire burned 5,042 acres immediately northwest of the project area.

2.2 PROPOSED TREATMENTS

The proposed project involves implementation of WUI fuel reduction and ecological restoration treatment types. The vegetation treatment activities proposed to implement each of these treatment types are summarized in Table 2-1. Refer to Figure 2-1 for the location of each treatment type. The goal of this project is to protect lives and property by reducing the ladder fuels that enable a ground fire to transition to a crown fire, thereby creating embers that could be blown in the adjacent community resulting in loss of property and possibly life. The treatment types and treatment activities are described below.

Table 2-1 Proposed CalVTP Treatments

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activity	Treatment size (acres)	Equipment for Treatments	Typical duration of Treatments
WUI Fuel Reduction	Promote forest health and fire control by raising and thinning the canopies of the oak woodland, remove understory shrubs and accumulated ground fuels. Control resprouting trees and shrubs using herbicides.	Mechanical (mastication, chipping) Manual (hand thinning, pruning, piling) Prescribed burning (broadcast/under burning, pile burning) Herbicide application (hand application)	1,699	Masticators, chippers (tracked and wheeled), excavators, skid steers, tractors, hand tools, chainsaws, pole saws, weed trimmers, drip torches, propane torches, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers, 4-wheel drive vehicles	Mechanical and Manual treatments: 2 to 10 months; Prescribed burning: 1 day to 2 weeks; Herbicide application: Several days to weeks

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activity	Treatment size (acres)	Equipment for Treatments	Typical duration of Treatments
Ecological Restoration	Herbicide control of invasive species, prescribed burning for ground fuel reduction and invasive species control, tree establishment, riparian and oak woodland restoration	Herbicide application (hand application, including paint-on stems and using backpack hand-applicators) Prescribed burning (broadcast/under burning, pile burning) Manual treatment within Deer Creek Hills Preserve (hand planting) Mechanical treatments (Himalayan blackberry removal with mowing and/or tilling.	145	Hand tools, chainsaws, pole saws, weed trimmers, shovels, drip torches, propane torches, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers, 4-wheel drive vehicles	Herbicide treatment: Several Days to 2 weeks; Prescribed burning: 1-2 weeks; Manual treatment: Several days to weeks

2.2.1 Treatment Types

WILDLAND-URBAN INTERFACE FUEL REDUCTION

The focus of WUI fuel reduction treatments is to strategically remove fuel to directly protect communities and assets at risk from potential damage from non-wind driven wildfires originating in the adjacent wildlands, as well as to protect the wildlands from fires starting in or near development. WUI fuel reduction treatments also serve as emergency access points and staging areas for firefighters and equipment and reduce flammable vegetation along emergency evacuation routes for the community. Also, where existing habitat within the WUI is degraded, such as by the infestation of invasive plant species, as well as reducing fuels, WUI treatments may also help enhance habitat quality. Activities implemented within the WUI fuel reduction treatment type would occur outside of the 100-foot defensible space requirements described in PRC 429 and within the modeled WUI. WUI fuel reduction treatments would be implemented within approximately 1,699 acres of the 1,844 acre project area.

Oak Woodland Thinning

Although the prescriptions may be further refined based on site specific conditions and land management objectives, they will be consistent with those presented herein, as follows:

- Limb trees to 8 feet above ground.
- Removal of live trees less than 6 inches dbh may occur throughout the project area.
- Removal of live trees greater than 6 inches dbh would not exceed a maximum combined total of 500 inches dbh across the project area.
    - Tree removal would occur for trees determined to be hazardous that would pose a risk to public roads and/or trails.
- For areas within the Deer Creek Hills Preserve, live trees 6 inches dbh or less and other upland woody understory species (collectively referred to as the woody understory) would be subject to removal within 100-feet of roadways and parcel boundaries. In areas outside of this buffer, generally 50 percent of the understory habitat would be preserved in patches no less than 200-square feet.
- For areas outside of the Deer Creek Hills Preserve, near the built community and critical infrastructure, woody understory and tree removal would be conducted in a manner that allows for oak woodlands (i.e., interior live oak, blue oak, and valley oak) to continue to meet the alliance membership rules established in the *Manual of*

California Vegetation (Sawyer et al. 2009 or current version at http://vegetation.cnps.org/). Consideration for where woody understory is maintained would be based on vertical continuity between the overstory and providing separation by pruning adjacent overstory (above 8-feet) to reduce the risk of wildfire transferring to the overstory, as well as proximity to other existing habitat elements (e.g., large woody surface debris, strong mast producing trees, or areas of higher species diversity). Oak seedlings are part of the woody understory and would be maintained at a level across the landscape in oak woodlands that support natural levels of regeneration.

- All snags greater than 24 inches dbh would be retained unless they are determined to be a hazard to roads, trails, or operations.
- A total of approximately five snags per acre would be retained, prioritizing the following characteristics:
  - Free standing (i.e., not supported by other trees);
  - Signs of existing wildlife use (e.g., cavities, granaries, nests) as determined by a qualified biologist or RPF;
  - Hardened snags (i.e., those without fine branches and dead foliage); and
  - Snags that are not horizontally connected with the rest of the overstory canopy in the stand.
- Dead branches that originate from the main bole of the tree above 8 feet and reach the ground would be cut back to a height of 6 feet above the ground.
- Project-generated slash and existing accumulations of ground fuels would be cut into pieces (lopped) to a maximum height of 18 inches above the ground, or piled, removed, masticated, or chipped. For areas within 100 feet of county roads and designated evacuation routes, remove all existing ground fuels less than 6 inches in diameter (unless designated by RPF) and material created by this project.
- Within 50 feet of designated recreation trails, remove all ground fuels less than 6 inches in diameter.

ECOLOGICAL RESTORATION TREATMENT

Ecological restoration treatments would be implemented outside the WUI treatment areas. Treatments would seek to protect and restore ecological function of native vegetation types, including returning fire to a more historical and natural role on the landscape to improve native habitats, recreate healthy forest and woodland conditions, and create a natural landscape more resilient to wildfires. The CalVTP seeks to improve overall forest, woodland, and grassland health and provides watershed benefits by supporting native habitat structure that is resilient to future natural disturbances and climate scenarios. This project proposes ecological restoration treatment types to restore ecosystem processes, conditions, and resiliency through the removal invasive species in areas generally outside of the WUI, as defined in the Program EIR (CalVTP Final Program EIR Volume II Section 2.5.1 page 7 and page 15-17) and through new tree plantings. These treatments are intended to restore ecosystem processes, native stand conditions, and increase fire resiliency. Ecological restoration treatments would be implemented through mechanical and manual treatment activities and are intended to reduce the risk of stand-replacing fire events, restoring native vegetative species and habitat conditions to improve habitat quality and support natural, low intensity fire regimes.

Invasive Species Control

Invasive species control is an important component of ecological restoration and is targeted for up to 120 acres within the project area. A pest control advisor (PCA) would be consulted and engaged to prepare a pest control recommendation (PCR) for all treatments involving herbicide application (herbicide treatments are discussed in more detail below under Section 2.2.2, "Treatment Activities"). The following invasive species, yellow star thistle (*Centaurea solstitialis*), Italian thistle *(Carduus pycnocephalus),* and milk thistle (*Silybum marianum*), would be treated as follows:

- Removal by hand;
- Cultivation or mowing before flowers open;

- Application of herbicides with backpack sprayers in spring or fall when young plants are growing or before they germinate; and
- Properly timed (i.e., to occur between spring to later fall) broadcast burning.

The following invasive species, onion grass (*Romulea rosea*), skelton weed (*Chondrilla juncea*), perennial pepperweed (*Lepidium latifolium*), stinkwort (*Dittrichia graveolens*) and Klamath weed (*Hypericum perforatum*), would be treated as follows:

- Application of herbicides with backpack sprayers, and
- Properly timed (i.e., to occur between spring to later fall) broadcast burning.

The invasive species, Himalayan blackberry *(Rubus armeniacus),* would be treated as follows:

- control through tilling, and
- application of herbicides with backpack sprayers.
- Properly timed (i.e., to occur between spring to later fall) broadcast burning.

Hand Planting

Approximately 500 trees within approximately 30 acres would be planted by hand under the proposed project. Trees would be established within the Deer Creek Hills Preserve only. Consistent with SPR AD-3, any additional planting would occur at the rate of 1-inch dbh: 1-inch dbh for trees larger than 6 inches dbh that are removed. Tree plantings would be categorized as riparian restoration or upland infill. Riparian restoration plantings would include species such as valley oak *(Quercus lobata),* live oak (*Quercus wislizeni),* cottonwood *(Populus freemontii),* willow *(Salix spp.),* and/or California buckeye (*Aesculus californica).* Upland infill plantings would be limited to blue oak *(Quercus douglasii*). Plantings would add to existing restoration efforts along and near Crevis Creek. The trees would be spaced 15 - 25 feet apart depending on the species. Planting would not occur within 15 feet of the dripline of any existing healthy tree or within seven feet of a fence or other permanent infrastructure. Trees would be planted in offset rows to maximize shade for the area and, over time, resemble a natural open-space setting.

Trees would be planted by seed or from containers, to support naturalized growth of deeply rooted native trees. The trees (seeds) would be sourced from within or near the Deer Creek Hills Preserve. Replacement trees (to replace those planted trees that died or did not successfully establish) would be planted each year during the planting season (November to March) as needed. The following steps would be considered during hand planting activities:

- Prior to planting, existing vegetation would be cleared from the planting site with hand tools.
- Holes would be dug using hand tools (e.g., shovels, axes).
- Compost or chips would be added on top of the soil surrounding the tree to reduce evaporation from the soil, collect water to minimize run-off, and deepen the saturation within the tree's root zone.
- T-posts, barbed wire, tree tubes, and other implements would be temporarily installed to prevent herbivory and cattle disturbance.
- There would be a three-year maintenance and monitoring period, including regular watering, mulch application, installation of tree protection materials, and pruning as needed. The water system would be temporary and seasonal and would not be supplied via watercourses.

2.2.2 Treatment Activities

The proposed vegetation treatment activities that would be used to implement the proposed treatment types are mechanical treatment, manual treatment, prescribed burning and targeted herbicide application. These activities would include a variety of prescriptions consistent with the parameters of the treatment types and based on grant objectives, landowners' management practices, land use, and proximity to county roads, evacuation routes and

structures. This project would implement all the treatment activities identified in the CalVTP except prescribed herbivory (note that grazing currently occurs within Deer Creek Hills, but it is not considered part of this project). The CalVTP treatment activities are described below.

PRESCRIBED BURNING

Prescribed burning consists of two general types: broadcast burning and pile burning.

- Broadcast burning: Broadcast burning would be used to promote forest health and native flora and reduce biomass and fuel loading in grassland, woodland, and forest vegetation. Pretreatment of vegetation using mechanical and manual activities or herbicide application would occur in areas proposed for prescribed burning. Prescribed burning in the grassland areas would help control nonnative plant species and reduce fine fuels. These treatments would also promote a more natural, sustainable, and wildfire resilient native landscape.
- Pile burning: Biomass from mechanical and manual treatments would be piled using equipment (e.g., skid steer, tractor, bulldozer or excavator) or hand crews and burned appropriately. Pile burning would occur in areas with little to no live overstory. Piles would be limited to 12 piles per acre; pile burning would not occur within Watercourse and Lake Protection Zones (WLPZs).

Crew sizes used for prescribed burning would require between one and 15 crew members.

MECHANICAL VEGETATION TREATMENT

Mechanical treatments may include masticating, piling, and chipping. These treatments would require between two and 10 crew members and may use skid steers, excavators, track chippers and masticators. Mechanical treatment activities include three categories of mastication: extreme, heavy, and light. The project would primarily use heavy and light mastication. Heavy mastication includes treating shrubs, small hardwoods (i.e., up to 6 inches dbh), and small saplings. Light mastication typically occurs in areas previously treated, and the vegetation being removed includes small diameter trees, grass, or shrubs.

MANUAL VEGETATION TREATMENT

Manual vegetation treatment would be implemented using hand tools and hand-operated power tools to cut, clear, or prune herbaceous and woody species. Activities would include thinning trees with chainsaws, loppers, or pruners; and planting desirable species by hand (hand planting). Manual treatments would be implemented using hand crews and chainsaws. Cut vegetation would be removed or left on site by lopping or chipping and scattering on the landscape respectively. Crew sizes used for manual vegetation treatments would require between one and 15 crew members.

HERBICIDE APPLICATION

Herbicides would be used sparingly to control vegetation that threatens the native biodiversity and/or increases wildfire hazards. Invasive plants and noxious weed infestations may be treated to prevent their establishment. The occasional use of herbicides to treat invasive plant species and to control regrowth of native tree species (e.g., resprouting, multiple-stemmed oak species) may be implemented. Only ground-level application would occur; no aerial spraying of herbicides would occur. Several herbicide application methods are available for use by on-the-ground personnel, including paint-on stems and using backpack hand-applicators. The desired standard of 90 percent mortality would be used to determine the application method on all treated hardwood sprouts. Crew sizes used for pesticide application would require between one and 15 crew members.

Glyphosate and other herbicides approved for wildland application in Sacramento County and analyzed in the CalVTP Program EIR may be used. Herbicide application would comply with the US Environmental Protection Agency (EPA) label directions, as well as California Environmental Protection Agency and Department of Pesticide Regulation (DPR)

label standards. In addition, several herbicides proposed for use (e.g., glyphosate, hexazinone, imazapyr, and triclopyr) are subject to the California Red-Legged Frog Injunction (Center for Biological Diversity v. US EPA [2006] Case No. 02-1580-JSW), and therefore, specific application requirements apply. All laws and regulations governing the use of herbicides would be followed during herbicide application.

Herbicides that may be applied under the CalVTP are:

- Borax (tetraborate decahydrate);
- Clopyralid (monoethanolamine salt);
- Glyphosate (isopropylamine salt, potassium salt, dimethylamine salt and diammonium salt);
- Hexazinone;
- Imazapyr (isopropylamine salt);
- Sulfometuron Methyl;
- Triclopyr (butoxyethyl ester and triethylamine salt);
- Nonylphenol 9 Ethoxylates (NP9E);
- Cleantraxx (penoxsulam and oxyfluorfen);
- Velpar (hexazinone); and
- Indaziflam.

A PCA would be consulted and engaged to prepare a PCR for all treatments involving herbicide application. Blue oak (*Quercus douglasii*) and live oak (*Quercus wislizeni*) cut stumps and/or stump sprouts would be treated using herbicides.

BIOMASS DISPOSAL

Disposal methods for biomass would include chipping, mastication, hauling to a different location on the property, and lopping and scattering. Within Deer Creek Hills Preserve (Preserve), mulch would first be stockpiled in one of two locations: 1. up to 5 cubic yards at the north entrance off of Scott Road; and 2. up to 50 cubic yards at the corral area off of Latrobe Road. Chips would be spread up to 3-inches deep on nearby areas in locations identified by Preserve staff. Outside of Deer Creek Hills Preserve mulch placement and/or off-haul would be contingent on specifications in individual agreements with land owners. Chips would not be spread at a depth greater than 3 inches; and masticated materials would not exceed 6 inches, except in previously disturbed/non-vegetated areas

Disposal methods for noxious weed biomass disposal include mowing, cultivating or tilling, removal by hand (i.e., disposal of individual plants in trash bags and off-hauling to a waste collection facility), or prescribed burning. If herbicide application is used, there would not be any need to dispose of biomass after the plants have died. 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.

2.3 TREATMENT MAINTENANCE

Retreatment for maintenance of desired vegetation conditions in the areas initially treated for the proposed project would follow the project initial treatment prescriptions and would be based on monitoring of site conditions. In the oak woodland areas, retreatment is anticipated to occur every 2-5 years. In areas where initial treatment included removing multiple stems from stump-sprouting vegetation (e.g., live oak and blue oak) retreatment would occur every 2-5 years. Retreatment/treatment maintenance methods would involve the same vegetation treatment activities used in the initial treatment; however, it is likely more hand crews than mechanical equipment would be used in

comparison to initial treatments. Retreatment/treatment maintenance would be implemented after regrowth is evaluated. Periodic retreatment/treatment maintenance would occur as needed, determined by qualified staff who would monitor vegetation growth conditions in the project area.

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

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

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3 ENVIRONMENTAL CHECKLIST

VEGETATION TREATMENT PROJECT INFORMATION

1. **Project Title:** Cosumnes Ladder Fuel Reduction Project

2. **CalVTP I.D. Number:** 2023-20

3. **Project Proponent Name and Address:**

   County of Sacramento, Department of Regional Parks
   827 7th Street, Room 225
   Sacramento, CA 95814

4. **Contact Person Information and Phone Number:** Alison Little
   916.874.8629

7. **Project Location:** The project is in eastern Sacramento County between the northern boundary of Deer Creek Hills Preserve to the north and Highway 16 to the south in Sloughhouse, California. The proposed project surrounds the community of Rancho Murieta, which is part of the greater Sloughhouse community.

   The approximate center of the project site is located at latitude 38.5, longitude -121.1.

8. **Total Area to Be Treated (acres)** 1,844 acres

9. **Description of Project**:

   a. Initial Treatment

   The proposed treatment types (i.e., wildland urban interface [WUI] fuel reduction, ecological restoration) and the treatment activities (i.e., manual treatments, mechanical treatments, herbicide application) are consistent with those evaluated in the CalVTP Program EIR. Maintenance treatments would involve the same vegetation treatment types and activities used in the initial treatments. Section 2 of this PSA provides a full description of the treatment types and activities. See Chapter 2, "Project Description," for additional details.

   Treatment Types

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

   Treatment Activities

   - ☒ Prescribed Burning (Broadcast), 1,844 acres
   - ☒ Prescribed Burning (Pile Burning), 1,844 acres
   - ☒ Mechanical Treatment, 1,024 acres
   - ☒ Manual Treatment, 29.5 acres
   - ☐ Prescribed Herbivory, 0 acres
   - ☒ Herbicide Application, 119.8 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

b. Treatment Maintenance

Retreatment for maintenance of desired vegetation conditions in the areas initially treated for the proposed project would follow the project initial treatment prescriptions and would be based on monitoring of site conditions. In the oak woodland areas, retreatment is anticipated to occur every 2-5 years. In areas where initial treatment included removing multiple stems from stump-sprouting vegetation (e.g., live oak and blue oak) retreatment would occur every 2-5 years. Retreatment/treatment maintenance methods would involve the same vegetation treatment activities used in the original treatment; however, it is likely more hand crews than mechanical equipment would be utilized in comparison to initial treatments. Retreatment/treatment maintenance would typically be implemented after regrowth is evaluated. Periodic retreatment/treatment maintenance would occur as needed, determined by qualified staff who would monitor vegetation growth conditions in the project area.

Treatment Types

☒ Wildland-Urban Interface Fuel Reduction

☐ Fuel Break

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast), 1,844 acres

☒ Prescribed Burning (Pile Burning), 1,844 acres

☒ Mechanical Treatment, 1,024 acres

☒ Manual Treatment, 29.5 acres

☐ Prescribed Herbivory, 0 acres

☒ Herbicide Application, 119.8 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

See "Treatment Maintenance" above.

10. Regional Setting and Surrounding Land Uses:

The proposed project consists of vegetation treatments in eastern Sacramento County between the northern boundary of Deer Creek Hills Preserve to the north and Highway 16 to the south in Sloughhouse, California. The proposed project surrounds the community of Rancho Murieta, which is part of the greater Sloughhouse community.

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

    Coastal Act Compliance

    ☒ The proposed project is NOT within the Coastal Zone.

    ☐ The proposed project is within the Coastal Zone. (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.*

DETERMINATION

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

☒ I find that all of the effects of the proposed project (a) have been covered in the CalVTP 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.

Julie Newton
Signature

9/27/23
Date

Julie Newton
Printed Name

Environmental Coordinator
Title

Sacramento County
Agency

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	No	—	—	—	—	—

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 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 prescribed burning, mechanical treatment, manual treatment, and targeted ground application of herbicides. The potential for these treatment activities to result in short-term degradation of the visual character of a treatment area was examined in the Program EIR. The nearest eligible state scenic highway to the project site is State Route (SR) 49 approximately 12 miles east of the project area (Caltrans 2023). SR 16 is located approximately 0.13 miles south of the project area boundary; however, SR 16 is not designated as a state scenic highway. The proposed treatments would occur on public and private lands. Public viewpoints within and near the project area from which treatments would be visible include the Deer Creek Hills Preserve, which is only accessible to the public during the months of February to May and October to November through registration with a limited capacity. Other viewpoints within and near the project area from which treatments would be visible are residences (e.g., Rancho Murieta community), recreation areas (e.g., Rancho Murieta Disc Golf Corse, Rancho Murieta Country Club, Community Park, and Rancho Murieta Lake Clementia Amphitheater); however, these viewpoints are private and not accessible to the public. Although portions of the project are visible from public viewpoints, the project is vegetated with mature trees and varied topography, reducing the visibility of treatments from public viewpoints. While existing mature trees and vegetation, as well as topography, may limit visibility, the project area contains areas of land that lack mature trees and vegetation, leaving treatment activities within those areas visible to the public. Equipment, crews and smoke from prescribed burning could be visible from public viewpoints 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 and affected resources are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. The inclusion of land outside the CalVTP treatable landscape, resulting in a change of the project compared to the Program EIR, constitutes the need for an Addendum to the CalVTP Program EIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside 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 WUI fuel reduction and ecological restoration. 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, recreation areas, and other public roadways. However, mature vegetation would remain after treatment to provide partial screening of treatment areas. The long-term visual character of the treatment areas after implementation of the proposed WUI fuel reduction and ecological restoration treatments would remain consistent with the current natural, vegetated landscape and would not constitute a noticeable adverse change or degrade the currently visual character of the landscape. There would be no degradation of a scenic vista or damage to scenic resources in a state scenic highway. 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

This impact does not apply to the proposed project because nonshaded fuel breaks are not proposed.

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 herbicide treatments to conduct ecological restoration and WUI treatment types. The potential for both treatment types and treatment activities to result in the loss of forestland or conversion of forestland to nonforest 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 Public Resources Code 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 treatment 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 Public Resources Code 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	SU	Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	Yes	AD-4 AQ-1 through AQ-6	AQ-1	SU	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	SU	Impact AQ-4, pp. 3.4-35 – 3.4-37	Yes	AD-4 AQ -2 AQ-6	NA (No feasible mitigation available)	SU	No	Yes
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5, pp. 3.4-37 – 3.4-38	Yes	AQ-1 HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	SU	Impact AQ-6; pp. 3.4-38	Yes	AD-4 AQ-2 AQ-6	NA (No feasible mitigation available)	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 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

The project area is located within the eastern edge of the Sacramento Valley air basin, adjacent to the Mountain Counties air basin. Pursuant to SPR AQ-2, the project proponent will prepare a smoke management plan and submit it to the Sacramento Metropolitan Air Quality Management District (SMAQMD), following requirements from SMAQMD before implementing any prescribed burning treatment. In addition, the project proponent will prepare a burn plan as required by SPR AQ-3, which may include outputs from fire behavior modeling programs to predict fire behavior, calculate consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating, and determine minimum resource requirements and will be implemented by a qualified technician or certified State burn boss. Pursuant to SPR AQ-6, an Incident Action Plan would be prepared for large, multi-day, or high complexity broadcast burns and to include elements appropriate for the size and scope of the burn. The Incident Action Plans will identify the contact personnel with SMAQMD 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 Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS) thresholds. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the Program EIR.

Emissions of criteria air pollutants related to proposed treatment are within the scope of the Program EIR because the associated equipment and duration of use as well as affected air basin are consistent with those analyzed in the Program EIR. The SPRs applicable to this impact are AD-4, and AQ-1 through AQ-6. The emission reduction techniques proposed in Mitigation Measure AQ-1 would be implemented to the extent feasible. However, because the treatments would be implemented by a public agency with limited funding, procuring or paying additional amounts for contractors that use equipment meeting the latest efficiency standards, including meeting the US Environmental Protection Agency's (EPA) Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology may be cost prohibitive. Carpooling would be encouraged by the County, but because crews may not all be employed with the same company it may not be feasible for most workers. For these reasons, and as explained in the Program EIR, this impact would remain 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 air quality conditions present and air basin in the areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this impact are AD-4, and AQ-1 through AQ-6. As explained above, impacts on air quality resulting from the proposed project, including proposed revisions to the project description, compared to the Program EIR program description, would not constitute new or 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 recreationists around Deer Creek Hills Preserve, to diesel particulate matter emissions. However, treatment activities would not take place near any person 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 impact 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 as well as in the Deer Creek Hills Preserve Master Plan Final EIR. NOA is contained within geologic materials in the Deer Creek Hills Preserve area; however, soil tests have not confirmed that onsite rocks and soils contain NOA (Sacramento County 2009). In accordance with SPR AQ-5, no treatments would occur in these areas unless an Asbestos Dust Control Plan is prepared and approved by SMAQMD, if required by 17 CCR Section 93105. SPR AQ-4 would also be applicable to these treatment activities. 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. 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. The duration and parameters of the prescribed burns are within the scope of the activities addressed in the Program EIR, and within the SMAQMD, air quality conditions for Sacramento County are consistent with those analyzed in the Program EIR. 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, the portion of the project site that is outside of the treatable landscape is located within the same air basin as the area of project within the treatable landscape (i.e., the Sacramento Valley air basin). Therefore, the existing conditions and impacts of the project would be the within and outside of the treatable landscape with respect to the project site; therefore, the air quality impact is also the same. SPRs applicable to this impact 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 significant and unavoidable, as explained in the Program EIR. As explained above, impacts on air quality resulting from the proposed project, including proposed revisions to the project description, compared to the Program EIR program description, would not constitute new or 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. In addition, treatments would occur in undeveloped areas where humans are present intermittently and for brief periods. 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. SPRs applicable to the proposed project are AQ-1, HAZ-1, NOI-4, and NOI-5. 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. 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 duration and parameters of the prescribed burn and the exposure potential are consistent with the activities addressed in the Program EIR. 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 applicable to this impact are AD-4, AQ-2, and AQ-6. 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 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 and revisions to SPRs constitute a revision to the Program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to 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 CUL-2 CUL-3 CUL-4 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 CUL-2 CUL-3 CUL-4 CUL-5 CUL-6 CUL-8	NA	LTS	No	Yes
Impact CUL-4: Disturb Human Remains	LTS	Impact CUL-4, p. 3.5-18	Yes	CUL-5	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

Consistent with SPR CUL-1, records searches of the approximately 1,844-acre project area were conducted at the North Central Information Center (NCIC) on January 4, 2023 (NCIC File Nos.: SAC-23-1 and SAC-23-7) and April 4, 2023 (NCIC File Nos.: SAC-23-65 and SAC-23-67). The records searches revealed 129 previously recorded cultural resources. This includes 21 precontact archaeological sites, 60 historic-era archaeological sites, five multicomponent archaeological sites containing both historic and prehistoric elements, and seven historic features. Additionally, 19 cultural resources were denoted as having been "destroyed" or were combined with other resources; 17 are "isolates,"

which are defined as one or two artifacts occurring by themselves and not associated with an archaeological site. Because they have no historical context, isolates are generally not eligible for listing in the California Register of Historical Resources (CRHR) and are therefore not resources under CEQA.

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On June 16, 2023, letters or emails inviting the tribes to consult were mailed to the seven tribal representatives indicated by NAHC. No responses were received. A June 15, 2023 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 NCIC records search revealed seven built-environment features; three have been evaluated and recommended not eligible for listing in the CRHR and therefore are not resources under CEQA and require no further consideration. The remaining four have not been evaluated and consistent with SPR CUL-7, would be avoided by all project activities. 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 ground disturbance associated with 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 NCIC records search revealed 86 previously recorded archaeological sites, consisting of precontact sites (lithic scatters, bedrock mortars, and rock tools), historic-era archaeological sites (foundations and structure pads, mine tailings, mine ditches, mine pits, and homesteads with wells, rock walls, and trash scatters), and multicomponent sites containing both historic and prehistoric elements. One of these sites has been evaluated and recommended eligible for listing in the CRHR, the Van Vleck-Ruman Diggings portion of Michigan Bar Mining District. None of the remaining sites have been evaluated, therefore, it is not known whether they 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 proposed 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 could 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.

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 the proposed project 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 contacts in Sacramento County were contacted on June 16, 2023, and included Rhonda Morningstar Pope, Chairperson, Buena Vista Rancheria of Me-Wuk Indians; Lloyd Mathiesen, Chairperson, Chicken Ranch Rancheria of Me-Wuk Indians; Sara Dutschke, Chairperson, Ione Band of Miwok Indians; Cosme Valdez, Chairperson, Nashville Enterprise Miwok-Maidu-Nishinam Tribe; Grayson Coney, Cultural Director, Tsi Akim Maidu; Joey Garfield, Tribal Archaeologist, Tule River Indian Tribe; Kerri Vera, Environmental Department, Tule River Indian Tribe; Neil Peyron, Chairperson, Tule River Indian Tribe; Gene Whitehouse, Chairperson, United Auburn Indian Community of the Auburn Rancheria; Dahlton Brown, Director of Administration, Wilton Rancheria; Jesus Tarango, Chairperson, Wilton Rancheria; and Steven Hutchason, Tribal Historic Preservation Officer, Wilton Rancheria. No responses were received.

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. 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 skid steers, excavators, and dozers, which could uncover human remains. The NCIC records search revealed one location of a historic cemetery, though it is unknown if any human remains are extant. Because the cemetery is associated with an archaeological site, it would be avoided consistent with SPR CUL-5. The potential for treatment activities to uncover human remains was examined in the Program EIR. This impact is within the scope of the Program EIR because the treatment activities and intensity of ground disturbance are consistent with those analyzed in the Program EIR. 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. 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 site-specific characteristics of the proposed treatment project 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 BIO-1c	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTSM (all wildlife species except bumble bees) SU (bumble bees)	Impact BIO-2, pp 3.6-138 – 3.6-184	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-10 HAZ-5 HAZ-6 HYD-1 HYD-4 HYD-5	BIO-2a BIO-2b BIO-2d BIO-2e BIO-2g BIO-3a BIO-3b BIO-3c BIO-4	LTSM for bumble bee habitat function; TSE for direct harm to bumble bee species; LTSM for other species	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 BIO-2 BIO-3 BIO-4 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 BIO-4 BIO-10 HYD-1 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	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?
				BIO-4 BIO-12				
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; SU = significant and unavoidable; TSE = too speculative for evaluation, per CEQA Guidelines Section 15145; 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
[Identify new impact here, if applicable; add rows as needed.]	☐	☐	☐

Discussion

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of project-specific biological resources, including habitat and vegetation types, special-status plants, special-status wildlife, and sensitive habitats (e.g., sensitive natural communities, wetlands) with potential to occur in the project area. Habitat and vegetation types in the project area were identified using data from the Vegetation Alliances and Associations of the Great Valley Ecoregion (Buck-Diaz et al. 2012) and the Northern Sierra Foothills Mapping Project (Menke et al. 2011), which adhere to the National Vegetation Classification standards. As shown in Table 4.5-1, the project area consists of oak woodland (approximately 930 acres) and grassland communities (approximately 880 acres), smaller areas of wetland/riparian habitat (approximately 19 acres) and urban development (approximately 27 acres). Coyote brush (*Baccharis pilularis*) is interspersed within the grassland communities in parts of the project area.

Table 4.5-1 Habitat Types in the Project Area

Habitat Type	Wildland Urban Interface Acreage	Ecological Restoration Acreage	Total Acreage
Forest/Woodland			
Blue Oak Woodland and Forest Alliance	762.7	17.7	**780.3**
Interior Live Oak Woodland and Forest Alliance	149.5	0.0	**149.5**
Forest/Woodland Total	—	—	***929.8***

Habitat Type	Wildland Urban Interface Acreage	Ecological Restoration Acreage	Total Acreage
Herbaceous			
California Annual and Perennial Grassland Macrogroup	746.7	126.5	**873.2**
Mediterranean California Naturalized Annual and Perennial Grassland Group	7.4	0.0	**7.4**
Herbaceous Total	—	—	***880.6***
Wetland/Riparian			
Fremont Cottonwood Alliance	5.5	0.1	**5.6**
White Alder Groves Alliance	0.03	0.0	**0.03**
Valley Oak Riparian Forest and Woodland Alliance	8.8	0.0	**8.8**
Arid West Freshwater Emergent Marsh Group	0.07	0.0	**0.07**
Californian Warm Temperate Marsh/Seep Group	<0.01	0.8	**0.8**
Lacustrine/Riverine	4.1	0.0	**4.1**
Wetland/Riparian Total	—	—	***19.4***
Developed/Disturbed/Barren[1]			
Urban	26.6	0.0	**26.6**
Developed/Disturbed/Barren Total	—	—	***26.6***
All Habitat Types Total	—	—	**1,856.4**

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

Sources: Menke et al. 2011; Buck-Diaz et al. 2012; USFS EVEG vegetation data, compiled by Ascent Environmental in 2023.

Pre-contact fire return intervals for California oak woodland communities had a mean minimum of 5 years and a median of 12 years with a mean maximum of 45 years (Van de Water and Safford 2011). The Manual of California Vegetation defines the fire return interval of blue oak woodland and forest and interior live oak woodland as 5 to 15 years (CNPS 2023b). Low-elevation California grassland communities had a mean minimum fire return interval of 2 years and a mean maximum of 7 years (US Forest Service 2012). Fire ignitions in riparian communities in the Central Valley are thought to be limited as these vegetation communities likely acted as firebreaks (Wills 2006 cited in Fryer 2015). The Manual of California Vegetation reports a fire return interval of short to medium (5-100+ years) for valley oak riparian forest and woodland, medium for Fremont cottonwood forest and woodland, and medium to long for white alder groves (CNPS 2023b). Fire history in California oak woodland, grassland, and riparian communities in the Sierra Nevada foothills and Central Valley where lightening ignitions were limited, were all shaped heavily by Indigenous prescribed fire activities (Keeley 2005; Hankins 2013; Hankins 2015). The project area has experienced fire activity more recently. According to CAL FIRE (2023a), in 1996 the Scott Fire burned small portions of grassland and blue oak woodland communities located in the northern portion of the project area, and in 2001 the Bevan Fire burned through grassland and oak communities in the southern portion of the project area. Additionally, a small portion of the grassland community in the eastern portion of the project area burned in the Latrobe Fire in 2017. A prescribed fire was implemented in the northeastern portion of the project area in June of 2022 within grasslands on the Deer Creek Hills Preserve (CAL FIRE 2023b).

Ascent conducted a reconnaissance-level survey of the project area pursuant to SPR BIO-1 on May 22 and 23, 2023. The project area is in the Great Valley and Sierra Nevada Foothills ecoregions, and ranges in elevation from approximately 150 feet to 500 feet above sea level.

A list of special-status plant and wildlife species with potential to occur in the project area 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 following US Geological Survey

(USGS) quadrangles containing and surrounding the project area: Irish Hill, Latrobe, Shingle Springs, Carbondale, Folsom SE, Folsom, Clarksville, Sloughhouse, Buffalo Creek, Ione, Goose Creek, and Clay (CNDDB 2023a; CNPS 2023a), and Appendix BIO-3 (Table 4a, Table 4b, Table 14a, Table 14b, and Table 19) in the CalVTP Final Program EIR (Volume II). A list of sensitive natural communities with potential to occur in the project area was compiled by:

- reviewing the list of sensitive natural communities as defined by California Department of Fish and Wildlife (CDFW) (CDFW 2023a),
- assessing community composition during the reconnaissance surveys,
- completing a CNDDB search of the USGS quadrangles containing and surrounding the project area (CNDDB 2023a),
- reviewing Vegetation Alliances and Associations of the Great Valley Ecoregion (Buck-Diaz et al. 2012) and the Northern Sierra Foothills Mapping Project (Menke et al. 2011), and
- reviewing Table 3.6-9 (pages 3.6-42 through 3.6-43) and Table 3.6-24 (pages 3.6-88 through 3.6-90) in the CalVTP Final Program EIR (Volume II) for sensitive natural communities that could occur in the Great Valley and Sierra Nevada Foothills ecoregions in the habitat types mapped in the project area.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of reconnaissance-level surveys, and habitat present within the project area as assessed during reconnaissance surveys, Ascent assembled a comprehensive list of all special-status plant and wildlife species with potential to occur in the vicinity of the proposed project. This complete species list, along with genus and species names, federal and state listing status, and potential to occur within the project area is contained in Attachment B. Special-status species with potential to occur in the project area are discussed in detail under Impact BIO-1 (special-status plants) and Impact BIO-2 (special-status wildlife).

IMPACT BIO-1

There are nine special-status plant species with suitable habitat in the project area and a range of distribution that overlaps the project area (Attachment B). All these special-status plant species are typically associated with wet areas (e.g., vernal pools or seasonal wetlands, riparian habitat, mesic grasslands).

Sanford's arrowhead (*Sagittaria sanfordii*) has been observed in two ponds located in Deer Creek Hills Preserve (Sacramento County 2009). Sanford's arrowhead is found in wetland habitat and is ranked California Rare Plant Rank (CRPR) 1B.2. During the May 2023 reconnaissance-level survey, plant species in the project area were recorded but no special-status plants were observed. However, it should be noted that some of the navarretia species observed during the reconnaissance-level survey could potentially be pincushion navarretia (*Navarretia myersii* ssp. *myersii*), which is a special-status plant species that has potential to occur in the project area, found in vernal pool habitat, and ranked CRPR 1B.1. Because protocol-level surveys have not been conducted within 5 years, protocol-level botanical surveys would be required prior to implementing treatments, per SPR BIO-7, as explained below.

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on the special-status plant species listed in Attachment B if present within treatment areas. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments, because the same treatment activities would occur, and treatment would 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 thatch, 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. For example, if retreatment occurs in oak woodland communities at frequencies outside the natural fire return interval, special-status plants associated with this community type could be adversely affected through habitat alteration that makes the habitat unsuitable for their growth and reproduction. The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR.

SPR BIO-7 would apply to all treatment activities, including maintenance treatments, and would require protocol-level surveys for special-status plants to be conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018a, or current version). If special-status plant species are observed during SPR BIO-7 surveys, Mitigation Measure BIO-1a and Mitigation Measure BIO-1b would be required, establishing no disturbance buffers around plants listed under the California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA) and other special-status plants, which would include special-status plants in both wetland and upland habitat. The surveys would occur prior to implementing mechanical treatment, manual treatment, prescribed burning (broadcast and pile burning), and targeted herbicide application 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 under two circumstances: 1) if protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional protocol-level plant surveys (i.e., as noted above); and 2) if treatment occurs during the dormant season, or when the species has completed its annual lifecycle, or if the target special-status plant species is a herbaceous annual, stump-sprouting, or geophyte species, provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment. 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 require that 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 in terms of the timing and types of treatments that may be implemented.

Eight of the nine 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 implementing only non-ground-disturbing treatment activities (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 occurs after the first substantial rainfall (approximately 0.5 inch) and cold snap, which generally occurs between October–December (Levine et al. 2008). As required by SPR BIO-1, control lines for prescribed burning would be established outside of potential habitat for special-status plants, or the proposed control line areas would be surveyed for special-status plants, including annual species, stump-sprouting species, or geophyte species, to determine the need and extent of avoidance areas. 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. If treatment activities could kill or remove vegetation, disturb the soil below the surface (e.g., mechanical treatments), or cannot be completed in the dormant season of annual, stump-sprouting, or 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.

The remaining species, Tuolumne button-celery (*Eryngium pinnatisectum*) can be either annual or perennial. If found in the project area during protocol-level surveys, the lifeform of the population would need to be identified to determine proper mitigation measures. If the population of Tuolumne button-celery is perennial, which cannot be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes, protocol-level surveys under SPR BIO-7, identification of individual populations, would be necessary prior to implementing treatment activities regardless of the timing of treatments (i.e., the dormant period of perennial species does not provide a window where significant impacts can be avoided since they remain above-ground).

Where protocol-level surveys are required (pursuant to SPR BIO-7) and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, will 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 no treatment activities will occur unless a qualified RPF or biologist determines, based on substantial evidence, that a different buffer size should be used or 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 are identified within proposed treatment areas, 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 will be identified. In addition, an evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants will be carried out by a qualified RPF or botanist. Therefore, through implementation of Mitigation Measures BIO-1a and BIO-1b, habitat function for special-status plants will be maintained because treatment activities and maintenance treatments will be designed to ensure that treatments, including follow-up maintenance treatments, maintain habitat function for the special-status plant species present.

In addition, pursuant to SPR HYD-5, nontarget vegetation and special-status species would be protected from herbicides. Only ground-level herbicide application would occur (no aerial spraying). In addition, only herbicides labeled for use in aquatic environments would be used when working in areas where there is a possibility the herbicide could come into direct contact with water. Herbicides would be applied by hand and only during low-flow periods or when seasonal streams are dry. Herbicides, aquatic and terrestrial, would not be applied within Watercourse and Lake Protection Zones (WLPZs) or Equipment Limitation Zones (ELZs) (established per SPR HYD-5).

Conclusion

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 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 and habitat characteristics present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape); therefore, the potential impact on special-status plants is also the same, as described above. SPRs that apply to project impacts under Impact BIO-1 are 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 this impact are Mitigation Measure BIO-1a and Mitigation Measure BIO-1b. If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, Mitigation Measure BIO-1c would be implemented. 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 special-status wildlife species and habitat suitable for these species within the project area, as described in the following sections. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities would occur, and maintenance treatments would follow the initial treatment prescriptions.

California tiger salamander

The northern most edge of the range of California tiger salamander in eastern Sacramento County is considered to be associated with the Cosumnes River (County of Sacramento et al. 2018); therefore, the portions of the project area north of the river (which encompasses the majority of the project area) are considered to be outside of the range of the species. 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 natural ponds, livestock impoundments and modified permanent ponds are also frequently used (USFWS 2017a). California tiger salamander spends most of its adult life stage underground in upland small mammal burrows typically

in grassland and woodland habitat (USFWS 2017a). 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, and typically overnight. California tiger salamander spends the non-breeding season in burrows within upland habitat (grasslands and oak woodlands) up to 1.3 miles from breeding ponds (USFWS 2017a, 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). Ponds and other aquatic features that are potentially suitable for California tiger salamander breeding are present within 1.3 miles of the project area south of the Cosumnes River. Therefore, portions of the project area south of the Cosumnes River (approximately 25 acres) may be used as upland habitat by the species.

If present within the two treatment areas within its range, 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, which may cause the burrows to reach high temperatures). Mechanical treatment activities have the potential to crush individual salamanders that may take refuge under vehicles and to collapse burrows, resulting in injury or mortality of any salamanders using small mammal burrows for refuge. Manual treatment activities, broadcast burning, and herbicide application may cause injury, mortality, or substantial disturbance to individual California tiger salamanders if these activities occur when California tiger salamanders are above ground. The potential for initial treatment activities and maintenance treatments to result in adverse effects on California tiger salamander was examined in the Program EIR.

Pursuant to SPR HYD-4, WLPZs of 50 to 150 feet adjacent to all Class I (e.g., Cosumnes River) and Class II watercourses 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. Wetland delineations would be conducted to determine if other wetland habitat suitable for California tiger salamander breeding (e.g., impoundments, vernal pools) are present within treatment areas. In areas where aquatic habitats are delineated, a no-disturbance buffer of at least 25 feet would be implemented (refer to Impact BIO-4 below). 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. Additionally, SPR HYD-1 requires that project activities comply with local water quality regulations. However, these measures may not avoid impacts on California tiger salamanders if they are present outside of established WLPZs or buffers (e.g., greater than 150 feet from aquatic habitat) within the two treatment areas south of the Cosumnes River. In addition, impacts may not be avoided if non-mechanical treatment activities are implemented within the WLPZ during periods when individuals are above ground.

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 the species, then no additional measures would be required. However, California tiger salamander spends half of the year in upland habitat and may be present large distances (i.e., up to 1.3 miles) from breeding pools; therefore, California tiger salamander in upland habitat within the two treatment areas south of the Cosumnes River cannot be fully avoided. As a result, SPR BIO-10 would apply, and a qualified RPF or qualified biologist with appropriate permits 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. If protocol-level surveys are determined to be infeasible, the presence of California tiger salamander may be assumed within aquatic habitats (e.g., ponds) suitable for breeding and suitable upland habitat within 1.3 miles of these aquatic features within the two treatment areas south of the Cosumnes River.

If California tiger salamander is detected during protocol-level surveys or assumed to be present, then Mitigation Measure BIO-2a will be implemented for all treatment activities within the two treatment areas south of the Cosumnes River (upland habitat with mammal burrows within 1.3 miles of breeding ponds). Mitigation Measure BIO-2a requires daily pre-activity surveys for California tiger salamander in habitat suitable for the species in the two treatment areas south of the Cosumnes River for manual treatments, mechanical treatments, herbicide application, and prescribed burning activities. Mastication activities would be restricted to equipment operated from previously

compacted areas (such as established roads and trails), and other mechanical equipment that may cause burrows to collapse will be prohibited within 50 feet of small mammal burrows in upland and dispersal habitat. Additionally, burn piles would not be placed on small mammal burrows in upland habitat.

Habitat function for California tiger salamander would be maintained because, as described above, treatment activities and maintenance treatments would not occur within 25 feet of aquatic habitat suitable for California tiger salamander, and oak woodland and grassland habitats would be maintained. Treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of larger trees not exceeding a total of 500 inches dbh). Residual masticated materials would be no more than 6 inches deep and chipped materials would be no more than 3 inches deep, except in previously disturbed/non-vegetated areas where they would not impede wildlife use of refugia, such as mammal burrows. In addition, ground fuels (e.g., down logs) greater than 6 inches in diameter would be retained, which would act as cover for the species during above ground movement.

Pursuant to SPR HYD-4, within WLPZs, at least 75 percent surface and undisturbed area would be maintained to act as a filter strip for raindrop energy dissipation and for wildlife habitat. Additionally, SPR BIO-4 requires retention of 75 percent overstory and 50 percent understory canopy of native vegetation within riparian habitat, and vegetation removal 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 requires restrictions that prevent the collapse of mammal burrows used by California tiger salamander, as described above. Furthermore, while broadcast burning may be implemented within wetland habitats, Mitigation Measure BIO-4 requires that this may only occur if wetland function would be maintained. Also, Mitigation Measure BIO-4 requires that aquatic habitat will not be burned unless the habitat is at or beyond its normal fire return interval. Impacts to habitat for California tiger salamander will also be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3).

Pursuant to Mitigation Measure BIO-2a, and because California tiger salamander is listed under the California Endangered Species Act and the Endangered Species Act, Sacramento County must consult with CDFW and USFWS about its determination that mortality, injury, or disturbance will not occur, and habitat function will be maintained. For the reasons summarized above, Sacramento County determined that implementation of treatments would maintain habitat function for California tiger salamander and consulted with CDFW and USFWS to seek technical input on this determination, as required. On August 4, 2023, Sacramento County contacted Amy Kennedy at CDFW and Ryan Ohlah at USFWS 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. An addition to Mitigation Measure BIO-2a, describing that contacting CDFW and USFWS is required if any California tiger salamander is observed in the project area 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 spadefoot

Western spadefoot have been documented to occur at multiple locations within the project region (CNDDB 2023a). The seasonal impoundments, vernal pools, swales, freshwater emergent wetlands, pools in intermittent streams, and other similar temporary waters within the project area may provide breeding habitat for western spadefoot (Calherps n.d.). Grasslands and oak woodlands within 860 feet (Baumberger et al. 2019) of breeding habitat are considered upland habitat for the species, which spends the majority of its life in burrows in upland habitat.

As requested under Mitigation Measure BIO-4, wetland delineations will 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 will be implemented (refer to Impact BIO-4 below). Although these measures will avoid and minimize some adverse effects on western spadefoot, 25-foot buffers are not sufficient to prevent impacts on the species from ground disturbing activities (e.g., mechanical treatments) that would occur within 860

feet of vernal pools and seasonal wetlands. Mechanical treatments could result in burrow collapse and pile burning adjacent to burrows could result in high temperatures within the burrow, both of which could result in mortality. In addition, herbicide application, broadcast burning, and manual treatments could result in injury or mortality of western spadefoot if these activities occur when the species is above ground during migration to and from breeding pools. 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 can be clearly avoided by physically avoiding the habitat suitable for these species, then no additional measures would be required. However, because western spadefoot may be present relatively large distances (i.e., up to 860 feet) from breeding pools throughout the grassland and oak woodland habitat within the project area, it is unlikely that all habitat potentially suitable for this species can be avoided. As a result, SPR BIO-10 would apply, and focused surveys for western spadefoot would be conducted by a qualified RPF or biologist within habitat suitable for the species prior to implementation of mechanical, manual, prescribed burning, and herbicide treatments.

As noted above, if western spadefoot are not detected within the treatment area during focused surveys, then no mitigation for the species would be required. If western spadefoot are detected during focused surveys, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, flagging of areas for avoidance, relocation of individual animals will be established 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 through the implementation of SPRs HAZ-5 and HAZ-6, which require that herbicides and other hazardous materials are handled safely and are not allowed to enter waterways including those suitable for western spadefoot breeding. Residual masticated materials would be no more than 6 inches deep and chipped material would be no more than 3 inches deep, except in previously disturbed/non-vegetated areas where they would not impede wildlife use of refugia, such as mammal burrows. Ground fuels (e.g., down logs) greater than 6 inches in diameter would be retained, which would act as cover for the species during above ground movement. In addition, 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 will be avoided through establishment of no-disturbance buffers.

Impacts to habitat for western spadefoot will also be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3 for a discussion related to effects on sensitive habitats). 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 reptile species (coast horned lizard and western pond turtle)

Habitat for coast horned lizard is present within the portions of oak woodlands and grasslands in the project area that have understory cover for the species. While the majority of streams in the project area do not hold water long enough to be considered aquatic habitat for western pond turtle, Deer Creek, Cosumnes River, stock ponds, and lakes within and adjacent to the project area provide aquatic habitat suitable for the species, and the species is known to occur on Deer Creek Hills Preserve (Hopkins, pers. comms. 2023). Grasslands and open woodlands within 1,500 feet of these habitats may be used as upland nesting habitat for western pond turtle.

WLPZs ranging from 50 to 150 feet, based on slope, adjacent to all Class I and Class II streams within the treatment areas would be implemented per SPR HYD-4, which prohibits operating heavy equipment, equipment fueling, placement of burn piles, and fire ignition within these buffers. These prohibitions would reduce the likelihood that injury or mortality of western pond turtle would occur; however, full avoidance of western pond turtles would not occur if individuals are nesting greater than 50 to 150 feet from stream habitat, or if manual activities implemented within the WLPZ resulted in injury or mortality of the species. Coast horned lizard is a habitat generalist and not restricted to within 150 feet of lakes and watercourses, and implementation of WLPZs would not avoid injury or mortality of this species. Therefore, mechanical treatments, manual treatments, and prescribed burning could result in

the injury or mortality of western pond turtle and coast horned lizard. Herbicide application would be conducted by hand using paint-on stems and/or backpack sprayer techniques, which are not likely to result in injury or mortality of coast horned lizard or western pond turtle, because it is assumed that these species would be able to move away from the area of application and would not be crushed underfoot. The potential for treatment activities and maintenance treatments to result in adverse effects on coast horned lizard and western pond turtle was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on coast horned lizard and western pond turtle can be clearly avoided by physically avoiding the habitat suitable for the species, then no surveys or mitigation would be required. However, because coast horned lizard is a habitat generalist, and western pond turtles and nests may be present relatively large distances (i.e., approximately 1,500 feet) from aquatic habitat suitable for these species in grasslands or open woodlands, it is likely infeasible that all habitat potentially suitable for these species could be avoided. As a result, SPR BIO-10 would apply, and focused surveys for coast horned lizard would be required prior to implementation of prescribed burning, mechanical treatments, and manual treatments, or presence of the species may be assumed. In addition, focused surveys for western pond turtle and western pond turtle nests would be conducted within habitat suitable for the species prior to implementation of prescribed burning, mechanical treatments, and manual treatments.

If coast horned lizards or western pond turtles are not detected within the treatment areas during focused surveys, then no mitigation for these species would be required. If these species are detected during focused surveys, or if presence of coast horned lizard is assumed, then Mitigation Measure BIO-2b would be implemented. Mitigation Measure BIO-2b requires establishment of a 50-foot buffer including a path from the nest to the nearest aquatic habitat around western pond turtle nests for avoidance, stoppage of work if individual animals are found within the work area, and relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit to avoid injury to or mortality of these species.

Habitat function for western pond turtle would be maintained through implementation of SPRs HAZ-5 and HAZ-6, which require that herbicides and other hazardous materials are handled safely and are not allowed to enter waterways, including those suitable for western pond turtle. Residual masticated materials would be no more than 6 inches deep and/or chipped materials would be no more than 3 inches deep, except in previously disturbed/non-vegetated areas where they would not impede use of terrestrial habitats by western pond turtle and coast horned lizard. In addition, treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs adjacent to treatment areas would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover within riparian areas). Also, treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of trees not exceeding a total of 500 inches dbh). Furthermore, impacts to oak woodland habitat for coast horned lizards and western pond turtle will also be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3 for a discussion related to effects on sensitive habitats). 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 raptor species

Several special-status raptor species may nest and forage within the project area: burrowing owl, northern harrier, bald eagle, golden eagle, Swainson's hawk, and white-tailed kite. The grasslands and open woodlands within the project area provide nesting and foraging habitat for burrowing owl, which has been documented to occur within portions of the project area (Sacramento County 2009). The grasslands within the project area also provide suitable foraging habitat for northern harrier, and although pockets of marsh habitat are small within the project area, the species may also nest in this habitat type. The riparian habitats and oak woodlands within the project area provide nesting habitat for bald eagle (observed nesting during SPR BIO-1 survey), golden eagle, Swainson's hawk, and white-tailed kite. Initial and maintenance treatments including mechanical treatments, manual treatments, prescribed burning, and herbicide application, if conducted in the nesting bird season (typically February 1 through August 31 but the active nesting season will be defined by the qualified RPF or biologist), may result in the disturbance of active nests of these special-status raptor species if they occur within nesting habitat. Nest disturbance, as a result of

auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel), may result in nest abandonment and the loss of eggs and chicks, or injury to adult raptors. Additionally, mechanical treatments could result in burrow collapse and injury or mortality of burrowing owls overwintering in the project area if conducted during the burrowing owl dispersal and overwintering season (September 1–January 31). 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 nesting special-status raptors can 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, burrowing owl dispersal and overwintering season), then no survey or mitigation would be required. If conducting any treatment outside of the nesting bird season or conducting mechanical treatments outside the burrowing owl dispersal and overwintering season is determined to be infeasible, then SPR BIO-10 would apply, and focused nesting bird surveys for special-status raptors, or winter burrowing owl surveys, would be conducted prior to implementation of treatment activities within habitat suitable for these species.

If no active special-status raptor nests or active overwintering burrowing owls are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status raptor nests or active overwintering burrowing owls are observed during focused surveys, then Mitigation Measures BIO-2a (bald eagle, golden eagle, Swainson's hawk, and white-tailed kite) and BIO-2b (for burrowing owl, northern harrier) would be implemented.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 0.5 mile would be established around active bald eagle, golden eagle, and Swainson's hawk nests, 0.25 mile for northern harrier and white-tailed kite nests, and no treatment activities would occur within this buffer until the chicks have fledged. Burrowing owls may occupy their burrows year-round; therefore, a no-disturbance buffer of 1,640 feet during the nesting season (April 1–August 15), 660 feet during the fledging season (August 16–October 16), and 330 feet during the overwintering season (October 16–March 31) would be implemented around occupied burrowing owl burrows (CDFW 2012), until the chicks have fledged or the winter burrowing owl burrow is inactive as determined by a qualified RPF or biologist. Additionally, snags or trees containing bald eagle or golden eagle nests would not be removed pursuant to the Bald and Golden Eagle Protection Act.

Habitat function for special-status raptors would be maintained because treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of live trees not exceeding a total of 500 inches dbh), which are the most likely features to provide nesting habitat for special-status birds. Although snags up to 24 inches dbh would be removed if they are hazards to roads, trails, or operations, large trees and snags would be retained throughout the majority of the project area. In addition, treatments throughout the project area would be conducted in a manner that allows for oak woodlands (i.e., interior live oak, blue oak, and valley oak) to continue to meet the alliance membership rules established in the *Manual of California Vegetation* (Sawyer et al. 2009 or current version at http://vegetation.cnps.org/). Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR BIO-4), which would continue to provide riparian habitat for foraging and nesting.

Pursuant to Mitigation Measure BIO-2a, and because bald eagle, golden eagle, and white-tailed kite are fully protected species under California Fish and Game Code, bald eagle is listed as endangered under CESA, and Swainson's hawk is listed as threatened under CESA, Sacramento County must consult with CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, Sacramento County determined that implementation of treatments would maintain habitat function for bald eagle, golden eagle, Swainson's hawk, and white-tailed kite and consulted with CDFW to seek technical input on this determination, as required. On August 4, 2023, Sacramento County sent a memo to Amy Kennedy at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to bald eagle, golden eagle, and white-tailed kite and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the project description 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.

Other special-status bird species

Small marshes within Sierra Nevada Foothills may provide nesting habitat suitable for California black rail (Richmond et al. 2008), and the species has been documented to occur within approximately 7 miles of the project area (CNDDB 2023a). Additionally, the freshwater marshes within the project area and riparian vegetation may provide habitat for nesting colonies of tricolored blackbird. The grasslands and open woodlands within the project area are habitat for grasshopper sparrow, and loggerhead shrike has been documented to occur within portions of the project area (Sacramento County 2009).

Per SPR BIO-1, if it is determined that adverse effects on nesting special-status birds can 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 survey or mitigation would be required. Initial and maintenance treatments including mechanical treatments, manual treatments, prescribed burning, and herbicide application, if conducted in the nesting bird season (February 1 through August 31), may result in the disturbance of active nests of California black rail, grasshopper sparrow, and loggerhead shrike nests, or tricolored blackbird nest colonies if they occur within or adjacent to treatment areas. Nest disturbance, either resulting from direct destruction of the nest, or from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, fire, personnel), may result in loss of eggs and chicks. If conducting any given treatment outside of the nesting bird season is determined to be infeasible, then pursuant to SPR BIO-1, SPR BIO-10 would apply. The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Per SPR BIO-10, focused surveys for nesting birds would be conducted prior to implementation of mechanical treatments, manual treatments, prescribed burning, and herbicide application within habitat suitable for these species. If no active special-status 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, then Mitigation Measures BIO-2a (California black rail and tricolored blackbird) and BIO-2b (grasshopper sparrow and loggerhead shrike) would be implemented.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 600 feet will be applied around California black rail nests and of at least 100 feet around the nests of grasshopper sparrow and loggerhead shrike, and no treatments will occur within this buffer. A no-disturbance buffer will be applied around active tricolored blackbird colonies of at least 300 feet for mechanical treatments, manual treatments using power equipment, and prescribed burning; and 100 feet for other treatment types (Sacramento County 2009). These no-disturbance buffers will remain in place until the chicks have fledged as determined by a qualified biologist or RPF.

Habitat function for special-status birds would be maintained because treatment activities and maintenance treatments will not occur within 25 feet of aquatic habitat (see Impact BIO-4 regarding adverse effects on state or federally protected wetlands) and impacts to oak woodland habitat will also be avoided or minimized through retention of 50% of understory vegetation in portions of the project area, and implementation of Mitigation Measure BIO-3a (see Impact BIO-3 for a discussion related to effects on sensitive habitats). Treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of trees not exceeding a total of 500 inches dbh). Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR BIO-4), which would continue to provide riparian habitat for foraging and nesting.

Pursuant to Mitigation Measure BIO-2a, and because California black rail and tricolored blackbird are listed under CESA, Sacramento County must notify CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, Sacramento County determined that implementation of treatments would maintain habitat function for California black rail and tricolored blackbird. On August 4, Sacramento County sent a memo to Amy Kennedy at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to California black rail and tricolored blackbird and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the project description 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.

Special-status fish species

Streams within the project area other than Deer Creek are intermittent and do not support special-status fish species. However, the Cosumnes River runs through the project area, and the riparian corridor along the river is within the areas proposed for treatment. The river provides habitat for Chinook salmon - Central Valley fall / late fall-run Evolutionary Significant Unit and Steelhead - Central Valley Distinct Population Segment, while Chinook salmon have been documented to occur in Deer Creek (Hopkins, pers. comms. 2023). 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 can be clearly avoided by physically avoiding habitat for these species, then mitigation would not be required. Treatments would not occur within aquatic habitat for these special-status fish species; however, treatments may occur within associated riparian habitat. WLPZs ranging from 50 to 150 feet adjacent to all Class I streams (i.e., the Cosumnes River and Deer Creek) and Class II streams within the project area would be implemented per SPR HYD-4, which prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of burn piles, and fire ignition within the WLPZ. In addition, SPRs HAZ-5, HAZ-6, and HYD-5, would apply to herbicide application treatments and would require a spill response plan, compliance with all herbicide application regulations, locate mixing sites away from waterways, restrict application during precipitation events, and other measures. These measures would reduce the likelihood that contaminated runoff due to treatment activities would reach the Cosumnes River and Deer Creek that are habitat for special-status fish. Therefore, adverse effects on special-status fish would be clearly avoided through implementation of SPR HAZ-5, SPR HAZ-6, SPR HYD-4, and SPR HYD-5; and further mitigation would not be required.

Habitat function for special-status fish would be maintained because treatment activities would be limited within riparian habitat along the Cosumnes River pursuant to SPR HYD-4, which requires retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation. This riparian vegetation standard would maintain stream shading and avoid increases in water temperature within the Cosumnes River and Deer Creek. Furthermore, SPR HYD-1 requires compliance with water quality regulations. 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.

Crotch bumble bee

The project area contains potentially suitable habitat for Crotch bumble bee (e.g., grassland and adjacent oak woodland habitats with floral resources), and the project area is within the current range of the species (CDFW 2023b). Crotch bumble bees have been detected recently (2020) northwest of the project area near Rancho Cordova and south near Mokelumne Hill (CNDDB 2023a).

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 bumble bee nesting and overwintering as well as floral resources. The species may use abandoned rodent burrows and similar features within suitable habitat to establish nest colonies. Solitary queens may overwinter under leaf litter or in small cavities a few centimeters into loose soil. The flight season for Crotch bumble bee queens is from late February to March. The flight season for workers is from April to August during the colony active period. Crotch bumble bees are generalist foragers that feed from open flowers with short corollas (Xerces Society 2018). Treatment activities within suitable habitat for Crotch bumble bee may result in injury or mortality of Crotch bumble bees and the removal of floral resources. The potential for treatment activities, including maintenance treatments, to result in adverse effects on Crotch bumble bee 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, with 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 special-status species can be clearly avoided by physically avoiding the suitable habitat or by conducting treatments outside of the season when a sensitive resource is present, then no additional action would be required. However, because Crotch bumble bees may be present within the treatment areas year-round, either in colonies or as overwintering queens, SPR BIO-10 would apply, and habitat assessment and focused surveys for Crotch bumble bees would be conducted following the *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023b) prior to implementation of treatment activities, or presence of the species within treatment areas would be assumed.

If no Crotch bumble bees are found during pretreatment surveys, no further measures would be required. If Crotch bumble bees are found, or presence within suitable habitat is assumed, Mitigation Measure BIO-2g will apply, and treatment within suitable habitat will be designed to maintain floral resources during any year of treatment. Mitigation Measure BIO-2g also includes limiting herbicide use and prescribed burning during the flight season where project objectives will still be met and conducting treatments in a patchy pattern to retain floral resources and refuge for bumble bees. Additionally, impacts to habitat for Crotch bumble bee will be avoided or minimized because impacts to oak woodland habitat will be avoided or minimized through retention of 50% of understory vegetation Deer Creek Hills Preserve, and treatments throughout the project area would be conducted in a manner that allows for oak woodlands (i.e., interior live oak, blue oak, and valley oak) to continue to meet the alliance membership rules established in the Manual of California Vegetation (Sawyer et al. 2009 or current version at http://vegetation.cnps.org/). Additionally, habitat for Crotch bumble bee would be maintained through implementation of Mitigation Measure BIO-3a (see Impact BIO-3).

There is limited information on the abundance of Crotch bumble bee in California or on colony size of the species (Xerces Society 2018) and a current lack of published information on the potential magnitude of effects from the loss of individual Crotch bumble bee, including overwintering queens or nests, on populations of the species. Therefore, assessing the impact on the species due to the potential loss of individuals and populations (including overwintering queens and nesting bees) from this project would be too speculative to evaluate for the reasons listed above, and as such, further analysis of this issue is not included in accordance with CEQA Guidelines Section 15145, which indicates that after thorough investigation, if an impact is too speculative for meaningful evaluation, this finding should be noted, and further discussion can be concluded.

Pursuant to Mitigation Measure BIO-2g, and because this species is a candidate for listing under CESA and is likely to be present year-around in the treatment area (i.e., habitat cannot be avoided), Sacramento County must consult with CDFW about its proposed measures to avoid mortality, injury, or disturbance of the species and its determination that habitat function would be maintained. For the reasons summarized in the above discussion, Sacramento County determined that habitat function for Crotch bumble bee would be maintained after implementation of treatments and contacted CDFW to seek technical input on this determination, as required.

On August 4, 2023, Sacramento contacted Amy Kennedy from CDFW describing the measures that will be taken to avoid injury, mortality, or disturbance and maintain habitat function in compliance with Mitigation Measure BIO-2g. No revisions to the project description have been suggested by CDFW. Discussion regarding avoidance of impacts to floral resources is ongoing pursuant to Mitigation Measure BIO-2a, and any input from CDFW will be considered prior to treatment implementation.

Therefore, it is unlikely that populations of the species would be reduced below self-sustaining levels as a result of implementation of the proposed project or that treatment activities would substantially reduce the number or restrict the range of this species. With implementation of SPRs and Mitigation Measure BIO-2g, the impact of the project on habitat function for Crotch bumble bee would be less than significant and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Monarch Butterfly

The project area is outside of the monarch overwintering range; however, it is within the breeding and foraging range and contains various natural habitats and floral resources that likely provide foraging or breeding habitat suitable for the species. There are several documented observations of milkweed (*Asclepias* spp.), which is a monarch host plant, within the project area on the Deer Creek Hills Preserve (Western Monarch Milkweed Mapper 2023), and one milkweed plant was observed during SPR BIO-1 surveys. 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. The potential for treatment activities to result in adverse effects on monarch butterflies was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on monarch butterflies can be clearly avoided by conducting treatments outside of a season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. To avoid impacts on monarch butterfly, treatments may be conducted in grassland and oak woodland habitat outside of the season when monarch eggs, larvae, and pupae are likely to be present on milkweed host plants (i.e., treatment would not occur from March 15 through October 31) (Xerces Society 2019). This period may be adjusted by a qualified biologist or RPF to reflect local timing of monarch breeding, as recommended by Xerces Society (2019). If conducting treatments within oak woodlands and grasslands outside of this season of sensitivity is not feasible, treatments may result in the loss of host plants and monarch butterflies if present, and implementation of SPR BIO-10 would be required before treatment activities to avoid adverse effects.

If focused surveys pursuant to SPR BIO-10 are conducted and host plants (i.e., milkweed) are not detected, then further mitigation for the species would not be required. If host plants and monarch butterflies are detected during focused surveys, or if host plants are detected and monarch butterflies are assumed to be present, then Mitigation Measure BIO-2e would be implemented. Under Mitigation Measure BIO-2e, measures will be implemented to reduce the likelihood of mortality, injury, or disturbance to monarchs and to maintain habitat function. These measures include implementing a 10-foot buffer around host plants (i.e., native milkweed), if treatments are conducted during March 15 through October 31, when eggs, larvae, and pupae of monarch butterflies may be present (Xerces Society 2019) and conducting treatments in a patchy pattern to retain floral resources and provide refuge for butterflies if they are detected or assumed to be present.

Habitat function for monarch would be maintained because treatment activities and maintenance treatments would avoid the sensitive season for the species or would avoid host plants for the species during the sensitive season and would be conducted to retain floral resources if monarch butterflies are present or assumed to be present. Furthermore, impacts to habitat for monarch butterfly will also be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3). Therefore, any temporary impacts resulting from project implementation in the project area would not result in substantial loss of natural habitat in the vicinity of the project area. If monarchs are listed under ESA during the life of the project, then the final determination for habitat function maintenance must be made by the project proponent in contact with USFWS. Therefore, if monarchs are listed and Mitigation Measure BIO-2e is required for treatment activities, the project proponent would contact USFWS to seek technical input on the determination that habitat function would be maintained for monarch butterflies, and input on their proposed measures to avoid injury to or mortality of the species. This technical input may result in modification of the proposed measures. 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.

Valley elderberry longhorn beetle

Valley elderberry longhorn beetle occurs exclusively within elderberry shrubs (*Sambucus nigra caerulea*) and spends most of its life cycle within the stems of these shrubs. Elderberry shrubs occur primarily within riparian habitat but may also occur either singly or in groups in valley oak and blue oak woodland and annual grasslands, and elderberry shrubs were observed within and adjacent to the project area during the SPR BIO-1 survey. All treatment activities within suitable habitat for elderberry shrubs and valley elderberry longhorn beetle may result in damage to elderberry shrubs, and injury or mortality of valley elderberry longhorn beetle. The potential for treatment activities and maintenance treatments to result in adverse effects on valley elderberry longhorn beetle was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status species can be clearly avoided by physically avoiding the suitable habitat or by conducting treatments outside of the season when a sensitive resource is present, then no additional action would be required. WLPZs ranging from 50 to 150 feet adjacent to all Class I (including the Cosumnes River) and Class II streams within the project area would be implemented per SPR HYD-4, which prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of burn piles, and fire ignition within the WLPZ. SPR HYD-4 would reduce the potential for adverse effects in riparian habitat; however, elderberry shrubs and valley elderberry longhorn beetle may be present within other habitats in the project area (e.g., grasslands and oak woodlands), so adverse effects cannot clearly be physically avoided. SPRs HAZ-5, HAZ-6, and HYD-5 would also reduce adverse effects by requiring a spill response plan, compliance with all herbicide application regulations, locating mixing sites away from waterways, restricting application during precipitation events, and other measures.

Pursuant to SPR BIO-1, valley elderberry longhorn beetle habitat cannot be clearly avoided, and because valley elderberry longhorn beetle may be present within the treatment areas year-round, adverse effects cannot be clearly avoided by conducting treatments outside of the sensitive season. Therefore, SPR BIO-10 would apply, and protocol surveys (USFWS 2017b) for elderberry shrubs and valley longhorn beetle would be conducted within suitable habitat for the species prior to implementation of treatment activities. If surveys do not detect valley elderberry longhorn beetle or surveys indicate that the species is unlikely to occupy elderberry shrubs within a treatment area, then further mitigation for the species would not be required. If the protocol surveys detect valley elderberry longhorn beetle or indicate likely occupancy by the species, Mitigation Measure BIO-2d would be applied, which includes minimum avoidance buffer distances, limited operating periods within buffers, and monitoring.

Habitat function for valley elderberry longhorn beetle would be maintained because at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR HYD-4), which would continue to provide riparian habitat suitable for the species. In addition, Mitigation Measure BIO-2d requires avoidance of direct impacts to elderberry shrubs, with the exception of manual trimming of branches smaller than 1 inch diameter, and impacts will also be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3 for a discussion related to effects on sensitive habitats).

Pursuant to Mitigation Measure BIO-2d, and because valley elderberry longhorn beetle is listed under the ESA, Sacramento County must consult with USFWS about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, Sacramento County determined that implementation of treatments would maintain habitat function for valley elderberry longhorn beetle and contacted USFWS to seek technical input on this determination, as required. On August 3, 2023, Sacramento County contacted Ryan Olah at USFWS describing the measures that would be taken to avoid mortality, injury, and disturbance to valley elderberry longhorn beetle and to maintain habitat function in compliance with Mitigation Measure BIO-2d. No refinements to the project description or measures related to valley elderberry longhorn beetle resulted from contacting USFWS. 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.

Vernal pool invertebrates

Based on a review of the California Aquatic Resources Inventory, review of the Deer Creek Hills Preserve Master Plan EIR (Sacramento County 2009), and the reconnaissance-level survey conducted pursuant to SPR BIO-1, there are vernal pools and swales within the project area that may be suitable habitat for conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Mechanical treatments, manual treatments, herbicide application, and prescribed burning may result in death of conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp and the cysts of these species.

Per SPR BIO-1, if it is determined that adverse effects on conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. However, conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp may be present in vernal pools year-round, and implementation of SPR BIO-10 would be required before implementation of mechanical treatments, manual treatments, herbicide

application, and prescribed burning within vernal pool habitat, or the species may be assumed to be present. SPR BIO-10 protocol surveys would follow the *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2017c). If protocol surveys detect the presence of conservancy fairy shrimp, vernal pool fairy shrimp, or vernal pool tadpole shrimp, or these species are assumed to be present, Mitigation Measure BIO-2a will apply and no mechanical treatments will be conducted within 250 feet of the vernal pool where the species is present (Sacramento County 2009), but other treatment types that do not result in ground disturbance may occur within this buffer. If protocol surveys pursuant to SPR BIO-10 do not detect the presence of conservancy fairy shrimp, vernal pool fairy shrimp, or vernal pool tadpole shrimp, Mitigation Measure BIO-2a and this 250-foot buffer will not apply. Furthermore, pursuant to Mitigation Measure BIO-4 (refer to Impact BIO-4 below regarding adverse effects on state or federally protected wetlands), additional buffers would apply to non-mechanical treatments (i.e., manual treatments, herbicide application), around vernal pools.

Habitat function for conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp would be maintained through the implementation of SPRs HAZ-5 and HAZ-6, which require that herbicides and other hazardous materials are handled safely and are not allowed to enter waterways including vernal pools. In addition, treatment activities and maintenance treatments would not occur within aquatic habitat, and pursuant to Mitigation Measure BIO-4 (refer to Impact BIO-4 below, regarding adverse effects on state or federally protected wetlands), impacts on vernal pools would be avoided through establishment of no-disturbance buffers.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Sacramento County proposes to revise requirements under Mitigation Measure BIO-4 to allow for broadcast burning within vernal pools where special-status vernal pool invertebrates occur or are assumed to occur pursuant to SPR BIO-10, which would require a revision from the restrictions in Mitigation Measure BIO-4 that prohibit broadcast burning within wetlands when special-status species are present. See Section 2.1.1, "Treatment Types" for more information regarding the goals of conducting broadcast burning.

Proposed revisions to Mitigation Measure BIO-4 would not result in adverse impacts to conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp. The cists of vernal pool invertebrates have been found to survive fire in the soil and will be present in burned pools following the next rainy season (Wells et al. 1997). Broadcast burning within vernal pools has been found to result in short-term decreases of non-native grasses and increases in native species richness (Marty 2007), which contributes to general ecosystem health within vernal pools. In addition, removal of natural fire frequency supporting invasive species distribution has been identified as a threat to vernal pool species (USFWS 2005). Broadcast burning within vernal pool habitat occupied or assumed to be occupied by special-status vernal pool invertebrates would be subject to the remaining conditions in Mitigation Measure BIO-4 that require wetland function to be maintained, that the burn be within the normal fire interval, and that no containment lines or pile burning are permitted within the vernal pool. Therefore, the proposed revision to Mitigation Measure BIO-4, specifically to allow broadcast burning within vernal pools that are occupied by vernal pool invertebrates, would not result in a new or substantially more severe significant effect on conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp not addressed in the Program EIR. The text revision to Mitigation Measure BIO-4 is shown in underline and strikethrough in the MMRP (Attachment A).

Pursuant to Mitigation Measure BIO-2a, and because conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are listed under the ESA, Sacramento County must consult with USFWS about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, Sacramento County determined that implementation of treatments would maintain habitat function for conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp and contacted USFWS to seek technical input on this determination, as required. On August 3, 2023, Sacramento County contacted Ryan Olah at USFWS describing the measures that would be taken to avoid mortality, injury, and disturbance to vernal pool fairy shrimp and vernal pool tadpole shrimp and to maintain habitat function in compliance with Mitigation Measure BIO-2a. On August 29, 2003, USFWS provided scientific literature (Wells et al. 1997) providing evidence that fairy shrimp cysts are able to withstand prescribed burning and indicated that they have no concerns about impacts on cysts. Accordingly, Mitigation Measure BIO-4 was revised to allow for broadcast burning in vernal pools occupied by

special-status vernal pool invertebrates. 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 potentially suitable for American badger is present within portions of the grassland and open woodlands in the project area, where there is limited recreational use and the influence of adjacent development is low. Other portions of the project area directly adjacent to development or areas regularly used for recreation may not be suitable habitat for the species, due to ongoing human disturbance. Mechanical treatments and pile burning within habitats that are suitable for the species could result in disturbance of active dens, and potential loss of adults or young through direct mortality or den destruction. Herbicide application and manual treatments would not result in destruction of American badger dens, because personnel implementing these treatments would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. In addition, herbicide application is not likely to cause a substantial disruption in feeding, as these activities are not likely to be conducted in the vicinity of a den for a substantial length of time. However, manual treatments using power equipment, mechanical treatments, and prescribed burning in the vicinity of a maternity den could result in a substantial interruption of feeding and potential loss of young during the American badger maternity season (February 15 through July 1). The potential for treatment activities to result in adverse effects on American badger was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on American badger can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for this species, then mitigation would not be required. Because American badgers may use a den year-round, implementation of SPR BIO-10 would be required before implementation of mechanical treatments or pile burning. While implementation of SPR BIO-10 is not required prior to manual treatments or broadcast burning outside of the maternity season, SPR BIO-10 would be applied prior to manual treatments using power equipment and any prescribed burning during the American badger maternity season (February 15 through July 1). 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 mitigation for the species would not be required. If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer will be established around the den, the size of which will be determined by the qualified RPF or biologist, and no treatment activities will occur within this buffer.

Habitat function for American badger would be maintained, because ground fuels (e.g., down logs) greater than 6 inches in diameter would be retained, which would act as habitat for prey species. In addition, habitat suitable for the species (i.e., grasslands, open woodland) would be maintained and impacts to oak woodlands will also be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3). 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.

Pallid bat

Large snags and large trees within the project area may provide maternity roosting habitat for pallid bats. While the majority of trees to be removed would be under 6 inches dbh, and therefore not likely to provide cavities of sufficient size to support maternity roosts of pallid bat, the removal of larger trees may occur if these trees pose a hazard to public roads and trails, and to meet project objectives.

Per SPR BIO-1, if it is determined that adverse effects on special-status bats can 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 by conducting initial and maintenance treatments outside of the bat maternity season, which occurs from April 1 through August 31 (Caltrans 2004).

Prescribed burning, mechanical treatments, and manual treatments using power equipment (e.g., chainsaws) conducted within habitat suitable for bats during the bat maternity season (April 1 through August 31) could disturb active bat roosts, due to auditory and visual stimuli (e.g., heavy equipment, chainsaws, vehicles, personnel) or smoke

(e.g., prescribed burning), which may result in abandonment of the roost and loss of young. Herbicide treatments and manual treatments that do not use power equipment would not remove foliage from trees, tree cavities, snags, or other potential roosting locations for bats and these treatments would not 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 mechanical treatments, manual treatments using power equipment, 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 within habitat suitable for the species prior to initiation of these treatment activities. If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats will be implemented.

Under Mitigation Measure BIO-2b, a no-disturbance buffer of 250 feet will be established around active pallid bat roosts, which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and mechanical treatments and manual treatments using power equipment will not occur within this buffer. If special-status bat roosts are identified in a treatment area where prescribed burning is planned, prescribed burning activities will be implemented outside of the bat breeding season, which is April 1 through August 31 (Caltrans 2004).

Habitat function for special-status bats would be maintained because treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of larger trees not exceeding a total of 500 inches dbh), which would retain the larger trees that may be used by this species. Although hazard snags up to 24 inches dbh would be removed if they are hazards to roads, trails, or operations, snags would be retained in the majority of the project area to provide wildlife 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.

Ringtail

Ringtail is primarily nocturnal and may occur within riparian areas and oak woodland (including stands of various ages) within the project area. Potential denning locations include rock outcrops, crevices, snags, large hardwoods and conifers (over 12 inches dbh), and areas of dense shrubs. While rock outcrops would not be targeted for treatment activities and the majority of healthy live trees larger than 6 inches dbh would not be removed, manual treatments using power equipment may remove a total of 500 inches dbh of larger live trees. In addition, snags and hazard trees between 12 and 24 inches dbh may also be removed if they pose a threat to roads, trails, or operations. In addition, areas of dense shrubs would be masticated, and prescribed burning treatments would be applied within oak woodlands. These treatment activities may result in disturbance of ringtail dens within suitable habitat for the species. 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 can be clearly avoided by conducting mechanical treatments, manual treatments using power equipment, and prescribed burning treatments outside of the season of sensitivity (i.e., maternity season; April 15 through June 30), then mitigation would not be required. 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. Therefore, adverse effects on ringtail would be clearly avoided for mechanical treatments, manual treatments, and prescribed burning that would occur outside of the ringtail maternity season (April 15 through June 30).

Herbicide application is not expected to result in adverse effects on ringtail dens during the maternity season because this activity would not likely result in the substantial disturbance or removal of den sites. Manual treatments except for large hazard tree and snag removal between 12 and 24 inches dbh are not likely to result in direct injury to ringtails during the maternity season, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently damaged or otherwise destroyed would be very low. However, manual treatments using power equipment, mechanical treatments, and prescribed burning in the vicinity of a maternity den could result in direct injury or loss or a substantial interruption of feeding that could result in the potential loss of young during the ringtail maternity season. If conducting prescribed burning, mechanical treatments, or manual treatments using power equipment outside of the ringtail maternity season is not feasible, then SPR BIO-10 would apply, and presence

of ringtail would be assumed or focused surveys for ringtail would be conducted within the treatment areas prior to 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 ringtails are present within the treatment area and would be conducted by a qualified RPF or biologist with the appropriate permits. If ringtails are not detected during focused surveys, then further mitigation for the species would not be required. If ringtails are detected during focused surveys, then Mitigation Measure BIO-2a will be implemented and additional surveys will be required to determine whether an active ringtail den is present within the treatment area. If an active den is identified by a qualified RPF or biologist, a no-disturbance buffer would be established around the den, the size of which will be determined through consultation with CDFW. No mechanical treatment, manual treatment using power equipment, or prescribed burning activities would occur within this buffer until at least the end of the ringtail maternity season.

If the presence of ringtail within the treatment areas is assumed, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2a prior to and during implementation of prescribed burning, mechanical treatments, and manual treatment using power equipment, between April 15 and June 30. Avoidance and minimization measures will include but not be limited to den surveys, daily sweeps of treatment areas, and biological monitoring.

Habitat function for ringtail would be maintained because treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of live trees not exceeding a total of 500 inches dbh), which are the most likely trees to provide den locations for ringtail. Although snags up to 24 inches dbh would be removed if they are hazards to roads, trails, or operations, large trees and snags would be retained throughout the majority of the project area. In addition, impacts to oak woodland habitat will be avoided or minimized through retention of 50% of understory vegetation Deer Creek Hills Preserve, and treatments throughout the project area would be conducted in a manner that allows for oak woodlands (i.e., interior live oak, blue oak, and valley oak) to continue to meet the alliance membership rules established in the *Manual of California Vegetation* (Sawyer et al. 2009 or current version at http://vegetation.cnps.org/). Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR HYD-4), which would continue to provide riparian habitat suitable for the species. In the small areas of dense shrub habitat within the project area, thinning or removal of dense shrubs would not likely result in a decrease of habitat function, because ringtails often select rest sites and den sites near habitat edges and are tolerant to disturbance (Myers 2010). Treatment activities would likely create additional edge habitat, which would be used by ringtail.

Pursuant to Mitigation Measure BIO-2a, and because ringtail is a fully protected species under California Fish and Game Code, Sacramento County must consult with CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, Sacramento County determined that implementation of treatments would maintain habitat function for ringtail and consulted with CDFW to seek technical input on this determination, as required. On August 4, 2023, Sacramento County sent a memo to Amy Kennedy 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. No refinements to the project description that 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.

Conclusion

The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the Program EIR. This impact on special-status wildlife is within the scope of the Program EIR, because, within the boundary of the area, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape); and the treatment activities, intensity of disturbance as a result of implementing treatment activities, and potential effects on special-status wildlife 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. Biological resource SPRs that apply to project impacts under Impact BIO-2 are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-10, HAZ-5, HAZ-6, HYD-1, HYD-4, and HYD-5. Biological resource mitigation measures that apply to project impacts under Impact BIO-2 are Mitigation Measure BIO-2a, Mitigation Measure BIO-2b, Mitigation Measure BIO-2d, Mitigation Measure BIO-2e, Mitigation Measure BIO-2g, Mitigation Measure BIO-3a, Mitigation Measure BIO-3b, Mitigation Measure BIO-3c, and 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-3

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on sensitive habitats, including riparian habitat and sensitive natural communities as defined by CDFW (CDFW 2023a). 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 results of the reconnaissance-level biological surveys conducted pursuant to SPR BIO-1 on May 22 and 23, 2023, as well as local vegetation mapping, aerial photos, species ranges, and occurrence data, 15 sensitive habitats (i.e., natural communities with a rarity rank of S1, S2, or S3) are known to exist or may be present within the treatment area. The sensitive natural communities, associated rarity rank, and the habitat types within which the communities may occur are presented in Table 4.5-2 (sensitive natural communities known to occur are **bolded**). The Great Valley Ecoregion (Buck-Diaz et al. 2012) and Northern Sierra Foothills Mapping Project (Menke et al. 2011) mapped approximately 6 acres of Fremont cottonwood alliance. In addition, several oak woodland and forest types (i.e., interior live oak [146 acres], blue oak [780 acres], and valley oak [9 acres]) have been mapped to the alliance level and are present in the project area. These habitats are considered sensitive habitats pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4.

The sensitive natural communities of valley oak riparian forest and woodland and Fremont cottonwood forest and woodland are mapped in the project area to the alliance level (Menke et al. 2011; Buck-Diaz et al. 2012). Additionally, the project area contains Californian Warm Temperate Marsh/Seep Group (Menke et al. 2011), which is classified as wetlands dominated by species including creeping wildrye (*Leymus triticoides*) – one of the dominant or co-dominant species in the sensitive natural community – and ashy ryegrass – creeping wildrye turfs (CNPS 2023b) that has potential to occur in the project area. Additionally, Californian Warm Temperate Marsh/Seep Group may also be dominated by deer grass (*Muhlenbergia rigens*), which is the dominant or co-dominant species of the sensitive natural community deer grass beds and has potential to occur in the project area. During the reconnaissance-level survey conducted pursuant to SPR BIO-1, two sensitive natural communities were observed, consisting of California buckeye groves and Fremont cottonwood forest and woodland. Additionally, although California buckeye groves were not included in Menke et al. (2011) or Buck-Diaz et al. (2012) mapping, this alliance was verified during the reconnaissance-level survey to be in the project area. Additionally, during the reconnaissance-level survey, spikerush (*Eleocharis* spp.), a genus associated with multiple sensitive natural communities listed in Table 4.5-2, was identified. Not all parts of the project area were observed during the reconnaissance survey, and the survey intensity was not sufficient to identify vegetation types to alliance level; therefore, additional sensitive natural communities may be present (including those identified in Table 4.5-2). Implementation of SPR BIO-3 is required to map sensitive natural communities prior to treatment. This requires a qualified RPF or biologist to identify sensitive natural communities in the treatment 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/).

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

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
California buckeye grove	S3	Montane Hardwood
Fremont cottonwood forest and woodland	S3	Montane Riparian
Valley oak riparian forest and woodland	S3	Valley Oak Woodland
Tar plant fields	S2	Annual Grassland
Monolopia – Leafy-stemmed tickseed field	S3	Annual Grassland
Water blinks – Annual checkerbloom vernal pool	S2	Annual Grassland
Goldenaster patch	S3	Annual Grassland
Fremont's goldfields – Downingia vernal pools	S2	Annual Grassland
Smooth goldfields – Pale spike rush vernal pool bottoms	S2	Annual Grassland
Fremont's tidy-tips – Blow wives vernal pool	S3?	Annual Grassland
White-tip clover swales	S3?	Annual Grassland
Needle spike rush stands	S2	Annual Grassland
California brome – Blue wildrye prairie	S3	Perennial Grassland
Ashy ryegrass – Creeping wildrye turfs	S3	Perennial Grassland
Deer grass beds	S2?	Perennial 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.

Sources: CDFW 2023a; CNPS 2023b; Menke et al. 2011; Buck-Diaz et al. 2012; USFS EVEG vegetation data, compiled by Ascent Environmental in 2023.

Impacts on sensitive natural communities and oak woodlands would be avoided by not conducting treatment in these communities. However, if avoiding treatment activities within identified sensitive natural communities or oak woodlands would preclude achieving overall treatment objectives, then Mitigation Measure BIO-3a would apply in these areas to ensure 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 will 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 will 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 will not be maintained through implementation of Mitigation Measure BIO-3a, then Mitigation Measure BIO-3b will apply and unavoidable losses of these resources will be compensated through restoration or preservation of these vegetation types within or outside of the project area. Maintenance treatments will be developed with consideration for the location's vegetation type (as determined by a RPF or Biologist) and its natural fire return interval (i.e., time since last burn is greater than the average fire return interval for the habitat type). These intervals vary by vegetation type.

Riparian habitats are also present in the project area, including those associated with the Cosumnes River. Riparian vegetation types identified in the project area through the Vegetation Classification and Mapping Program (VegCAMP) mapping efforts consist of white alder groves (rarity rank = S4), Fremont cottonwood forest and woodland (rarity rank = S3), and valley oak riparian forest and woodland (rarity rank = S3) (Menke et al. 2011; Buck-Diaz et al. 2012). 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 fuel loads (e.g., dead or dying vegetation, invasive plants). Under SPR HYD-4, a WLPZ of 50 to 150

feet adjacent to all Class I and Class II streams would be implemented for all treatment activities. While these SPRs would reduce potential impacts on riparian habitat, the extent of riparian habitat within the treatment 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. Pursuant to SPR HYD-4, driving heavy equipment, equipment fueling, placement of burn piles, and fire ignition would be prohibited within the WLPZ. Herbicides, aquatic and terrestrial, would not be utilized within WLPZs or ELZs (established per SPR HYD-5). In addition, before conducting any treatments in riparian habitat, the County would notify CDFW pursuant to California Fish and Game Code 1602, when required. After implementation of SPR BIO-4, if impacts to riparian habitat remain significant under CEQA, then Mitigation Measures 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 area.

Conclusion

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 the treatment activities and intensity of disturbance from 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 and habitat characteristics present in the areas outside the treatable landscape in the project area are essentially the same as those within the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected 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 SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-6, SPR BIO-9, SPR HYD-4, and SPR HYD-5. The mitigation measures that apply to this impact are Mitigation Measure BIO-3a, Mitigation Measure BIO-3b, and Mitigation Measure 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.

Based on review of the California Aquatic Resources Inventory, National Wetlands Inventory, Vegetation Alliances and Associations of the Great Valley Ecoregion (Buck-Diaz et al. 2012) and the Northern Sierra Foothills Mapping Project, and the reconnaissance-level survey conducted pursuant to SPR BIO-1, there are several aquatic habitat types present within or directly adjacent to the project area, including riverine, seasonal impoundments, vernal pools, swales, freshwater emergent wetlands, and freshwater ponds. The National Wetlands Inventory has mapped approximately 9 acres of freshwater emergent wetlands, 8 acres of freshwater ponds, and 11 acres of riverine habitat in the project area (USFWS 2023). The Great Valley Ecoregion (Buck-Diaz et al. 2012) and Northern Sierra Foothills Mapping Project (Menke et al. 2011) mapped approximately 0.1-acre Arid West Freshwater Emergent Marsh Group and 0.8-acre Californian Warm Temperate Marsh/Seep Group. The riverine features within the project area, including Deer Creek, Crevis Creek, and the Cosumnes River, are intermittent to perennial with a defined bed and bank. Although riparian vegetation is present along Crevis Creek (Sacramento County 2009), these features lack a continuous riparian corridor. Vernal pools and swales are present within several portions of the project area, of which some of the smaller of these features observed during the SPR BIO-1 survey are currently unmapped. Some of the swales observed during the reconnaissance-level survey were dominated by toad rush (*Juncus bufonius*), Hyssop loosestrife (*Lythrum hyssopifolium*), and sometimes navarretia (*Navarretia* spp.). Other swales observed during the reconnaissance-level survey were dominated by eryngium (*Eryngium* spp.) and navarretia. Additionally, riverine habitat was observed during the reconnaissance-level survey that was not mapped. This includes a human-made ditch that followed the

Consumnes River from the fish ladder west through the project area. This ditch most likely carries fish and would therefore be classified as a Class I stream, per SPR HYD-4. Furthermore, there are several freshwater emergent wetlands, impoundments, and ponds within the project area. In addition, while the project area does not include the Cosumnes River, portions of the project area occur within the riparian corridor of this perennial water.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I (e.g., Cosumnes River, Lake Calero) and Class II watercourses (e.g., Deer Creek, Crevis Creek) 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 within the project area for prescribed burning ignition, mechanical treatment, and manual treatment. Establishment of WLPZs would result in avoidance of wetlands and other waters for prescribed burning ignition, mechanical treatment, and manual treatment.

Additional wetlands and other waters may be present throughout the project area that have not been identified or mapped such as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules [CAL FIRE 2020]), seasonal wetlands, springs, and human-made channels. Additionally, unmapped vernal pool and swale habitat was observed during the SPR BIO-1 survey.

Mitigation Measure BIO-4 will apply to all treatment activities, and a qualified RPF or biologist will delineate the boundaries of wetland features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, vernal pools, and other wetlands where herbicide application and soil disturbance is prohibited; 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., Sanford arrowhead, slender Orcutt grass, vernal pool fairy shrimp, and western spadefoot; see Impact BIO-1 and Impact BIO-2). In addition, while broadcast burning may be backed into wetland habitats, no ignition will occur within wetland buffers pursuant to Mitigation Measure BIO-4.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Sacramento County proposes to revise requirements under Mitigation Measure BIO-4 to allow for broadcast burning within vernal pools where special-status vernal pool invertebrates and annual plants occur, or are assumed to occur pursuant to SPR BIO-10, which would require a revision from the restrictions in Mitigation Measure BIO-4 that prohibit broadcast burning within wetlands when special-status species are present. See Section 2.1.1, "Treatment Types" for more information regarding the goals of conducting broadcast burning.

Proposed revisions to Mitigation Measure BIO-4 would allow for broadcast burning in vernal pools where the activity would have been previously excluded due to the presence of special-status vernal pool invertebrates and vernal pool plants. However, broadcast burning within vernal pools has been found to result in short-term decreases of non-native grasses and increases in native species richness (Marty 2007), which contributes to general ecosystem health within vernal pools. In addition, removal of natural fire frequency supporting invasive species distribution has been identified as a threat to vernal pool species (USFWS 2005); the proposed project would help address this threat. Broadcast burning within vernal pool habitat occupied or assumed to be occupied by special-status vernal pool invertebrates and vernal pool plants would be subject to the remaining conditions in Mitigation Measure BIO-4 that require wetland function to be maintained, that the burn be within the normal fire interval, and that no ignition, containment lines or pile burning are permitted. Therefore, the proposed revision to Mitigation Measure BIO-4, specifically to allow broadcast burning within vernal pools that are occupied by vernal pool invertebrates and vernal pool plants, would not result in a new or substantially more severe significant effect on state or federally protected wetlands not addressed in the Program EIR. The text revision to Mitigation Measure BIO-4 is shown in underline and strikethrough in the MMRP (Attachment A).

Conclusion

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, within the project area boundary, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and 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. Biological resource SPRs that apply to project impacts under Impact BIO-4 are SPRs BIO-1, HYD-1, HYD-3, 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 project area is located within a mapped regional connectivity linkage, the Cosumnes River/Deer Creek Wildlife Movement Corridor (CNDDB 2023b; County of Sacramento et al. 2018). Mechanical treatments, manual treatments, prescribed burning, and herbicide treatments would occur within this corridor, and these treatment activities may have temporary adverse effects on wildlife movement and the use of nurseries, due to the human and noise disturbance associated with these activities.

Herbicide treatments and prescribed burning are not anticipated to result in vegetation removal that would have an adverse effect on the suitability of the project area as a wildlife corridor or as nursery habitat, because treated areas would typically be small compared to migration corridors and likely span only a portion of a corridor or movement area such that wildlife could move through or near treated areas without substantially changing migration patterns. Mechanical treatments and manual tree removal would cut or masticate oaks; however, treatment activities would retain most live trees (i.e., oaks and other species) greater than 6 inches dbh (except for hazard trees and small numbers of live trees not exceeding a total of 500 inches dbh). Therefore, the majority of overstory oaks and riparian trees would remain and treatments are not anticipated to result in conversion of oak woodland or riparian woodland to other landcover types.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams would be implemented, which would limit the extent of treatment activities within riparian habitat (e.g., no mechanical treatment, no burn piles, retention of at least 75 percent surface cover) that would likely function as a wildlife movement corridor. Pursuant to SPR BIO-4, treatments in riparian habitat would be designed to maintain habitat function of these communities. 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 or provide nursery habitat in the project area. If wildlife nursery sites (e.g., deer fawning areas, common bat roosts) are detected during surveys conducted pursuant to SPR BIO-10, Mitigation Measure BIO-5 will 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 biologist or RPF.

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. Biological resource SPRs that apply to project impacts under Impact BIO-5 are SPR BIO-1, SPR BIO-4, SPR BIO-10, SPR HYD-1, and SPR HYD-4. The biological resource 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 vegetation treatments 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 habitat suitable for these species is present throughout the project area. Treatment activities, including mechanical treatments, manual treatments, prescribed burning, tree planting, and herbicide application, conducted during the nesting bird season (February 1 through August 31) could result in direct loss of active nests or disturbance to active nests from auditory and visual stimulus (e.g., masticators, chippers, chainsaws, vehicles, personnel) potentially resulting in abandonment and loss of eggs or chicks. The potential for treatment activities, including maintenance treatments, to result in adverse effects on these resources was examined in the Program EIR.

SPR BIO-12 would apply to the project, and for treatments implemented during the nesting bird season, a survey for common nesting birds would be conducted within each individual treatment area by a qualified RPF or biologist prior to treatment activities in that area. If no active bird nests are observed during focused surveys, then additional avoidance measures would not be required. If active nests of common birds or raptors are observed during focused surveys, disturbance to the nests would be avoided by establishing an appropriate buffer around the nests, modifying treatments to avoid disturbance to the nests, or deferring treatment until the nests are no longer active as determined by a qualified RPF or biologist.

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. Biological resource SPRs that apply to project impacts under Impact BIO-6 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, and SPR 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 Sacramento County Code of Ordinances (Chapter 19.12.070, "Tree Preservation and Protection Jurisdiction") requires that any living tree greater than 6-inches dbh must be mitigated at a 1 to 1 ratio (i.e., 1-inch removed requires planting of 1 tree). As discussed in Chapter 2, "Project Description," approximately 500 trees would be planted by hand under the proposed project and additional planting would occur at the rate of 1-inch dbh:1-inch dbh for trees larger than 5-inches dbh that are removed. These replanting efforts would meet requirements set for under the County's tree preservation and protection ordinance (Chapter 19.12.070). The Sacramento County General Plan Conservation Element Chapter Section 5, "Vegetation and Wildlife," contains policy CO-58, which ensures no net loss of wetlands, riparian woodlands, and oak woodlands. Mechanical treatments and manual tree removal would cut or masticate oaks up to 6 inches dbh and hazard trees up to 24 inches in diameter. However, the majority of overstory oaks and riparian trees would remain, and treatments are not anticipated to result in conversion of oak woodland or riparian woodland to other landcover types. In addition, impacts to wetlands will be avoided and Mitigation Measure BIO-4 will apply to all treatment activities, which would establish an appropriate buffer (with a minimum of 25 feet) around wetlands where herbicide application and soil disturbance are prohibited (see Impact BIO-4). Therefore, the project would not result in a net loss of wetlands.

Portions of the project area occur within the Deer Creek Hills Preserve. A master plan was completed for the preserve in March of 2009 (Sacramento County 2009). Treatment activities within the preserve would not conflict with the

goals and policies included in the Master Plan. In addition, the applicable SPRs and Mitigation Measures are protective of biological resources within the treatment area, including those areas in the project area that are within the preserve. Furthermore, applicable measures from the Deer Creek Hills Preserve Master Plan have been incorporated into the MMRP for implementation during treatments on the Deer Creek Hills Preserve.

The potential for the proposed treatments to conflict with local policies is within the scope of the Program EIR because vegetation treatment locations, types, and activities are consistent with those analyzed in the Program EIR. In addition, all projects implemented under the CalVTP that are subject to local policies or ordinances would be required to comply with them, per SPR AD-3. 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. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, 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 potential for treatment activities to result in conflicts with an adopted HCP or NCCP was examined in the Program EIR. The portions of the project area outside of the community of Rancho Murieta are located within the plan area of the South Sacramento Habitat Conservation Plan (SSHCP) and outside of the SSHCP urban development area (County of Sacramento et. al 2018); however, vegetation treatments are not a covered activity under the SSHCP. Therefore, the project is not a covered activity under the SSHCP (County of Sacramento et.al 2018). A portion of the project is proposed within the Deer Creek Hills Preserve, which predates the SSHCP and is not considered a part of the SSHCP preserve system; however, the SSHCP discusses the Deer Creek Hills Preserve as an existing preserve that the SSHCP would link to future preserves to maintain blue oak woodland (County of Sacramento et al. 2018). Blue oak woodland would be maintained after implementation of the project within the SSHCP plan area and Deer Creek Hills Preserve, and the project would not prohibit linkage of future SSHCP preserves to blue oak woodland on the Deer Creek Hills Preserve. Therefore, the project would not conflict with the SSHCP.

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 site-specific characteristics of the proposed treatment project 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). No changed circumstances are present; 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-3 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	GEO-3 GEO-4 GEO-7 GEO-8 AQ-3	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 located in the Great Valley geomorphic province, at the base of the Sierra Nevada Foothills (CGS 2015). The project area consists of gently sloping terrain, with slopes generally less than 40 percent, sloping to the west. The geology of the project area is dominated by metamorphic rock with Plio-Pleistocene and Pliocene loosely consolidated deposits with significant quaternary alluvium deposits found in the corridor along Crevis Creek (Sacramento County 2009). The project area is dominated primarily by three types of soils and contains other minor soil types: Auburn silt loam, Mokelumne gravelly loam, and Whiterock loam covers (NRCS 2023). Soils and topography have been modified by historic mining activity.

IMPACT GEO-1

Vegetation treatments would include ecological restoration and WUI fuel reduction through use of pile burning, broadcast burning, mechanical treatment, manual treatment, 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. This impact is within the scope of the Program EIR because the soil characteristics of the project area are essentially the same within and outside the CalVTP treatable landscape and 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 of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the potential impact related to soil erosion is also the same, as described above. SPRs applicable to this impact are GEO-1 through GEO-8, AQ-3, AQ-4, HYD-3, and HYD-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 pile burning, broadcast burning, mechanical treatment, manual treatment, and targeted use of herbicides. No areas with known landslide activity are identified within the project area (USGS 2023). However, given the variable topography in some of the treatment areas, the remoteness of the area, steep and sloping terrain, and wet winter conditions, there is the potential for landslides in the project area. The potential for treatment activities to increase landslide risk was examined in the 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 sloped and landslide conditions present in areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the potential impact related to landslide risk is also the same, as described above. SPRs applicable to this impact are AQ-3, GEO-1, 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 and revisions to SPRs constitute a revision to the Program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to geology and soils that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the 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	GHG-1	NA	LTS	No	Yes
Impact GHG-2: Generate GHG Emissions through Treatment Activities	SU	Impact GHG-2, pp. 3.8-11 – 3.8-17	Yes	AQ-3	GHG-2	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 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. 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 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 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. Mitigation Measure GHG-2 would be implemented and would reduce GHG emissions associated with the prescribed burning. However, emissions generated by the treatment would still contribute to the annual emissions generated by the CalVTP, and this impact would remain significant and unavoidable, for the same reasons described in, the Program EIR. SPR AQ-3 is also applicable to this treatment and will contain the description of feasible GHG reduction techniques implemented per Mitigation Measure GHG-2. 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 of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the GHG impact is also the same, as described above. As explained above, impacts on GHG emissions resulting from the proposed project, including proposed revisions to the project description, compared to the Program EIR program description, would not constitute new or 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 treatment 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 HYD-4	NA	LTS	No	Yes
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2, pp. 3.10-15 – 3.10-18	Yes	HAZ-5 HAZ-6 HAZ-7 HAZ-8 HAZ-9	NA	LTS	No	Yes
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	LTSM	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	NA	HAZ-3	LTSM	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 mechanical treatments, manual treatments, and prescribed burning. These treatment activities would require the use of fuels and related accelerants, 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 hazard material impact is also the same, as described above. SPR HAZ-1 and HYD-4 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-2

Initial and maintenance treatments would include the application of herbicides using ground-based methods, such as using a backpack sprayer or painting herbicide onto cut stems. 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 and application methods that would be used, which are limited to ground-based applications, would be 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 within the project area have been conducted. A school investigation cleanup site (Rancho Murieta Elementary School [34000005]), a proposed school site under the DTSC's Brownfields Restoration and School Evaluation Branch that is undergoing investigation and cleanup, is located within 0.25 mile of the project area; however, the site is currently vacant and undeveloped and has no action required due to a site visit indicating no actual or potential hazardous substances had been released. No other hazardous materials sites were identified within 0.25 mile of the project area (DTSC 2023; CalEPA 2023; SWRCB 2023). Because implementation of Mitigation Measure HAZ-3 determined that no hazardous materials sites would be disturbed by treatments, this impact would be less than significant. 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	AQ-3 BIO-4 BIO-5 GEO-4 GEO-6 HYD-4	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	BIO-1 GEO-1 GEO-2 GEO-3 GEO-4 GEO-5 GEO-7 GEO-8 HYD-1 HYD-4 HYD-5 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	BIO-4 HAZ-5 HAZ-7 HYD-5	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	GEO-5 HYD-4 HYD-6	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 project area is within the San Joaquin River hydrologic region and within the Upper Cosumnes Watershed. Hydrologic features in the project vicinity are Cosumnes River, Lake Clementia, Lake Chesbro, Lake Calero, Crevis Creek, and Laguna Joaquin. Several of the impacts below (i.e., Impact HYD-1 through Impact HYD-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 requires all projects using the CalVTP Program EIR to follow the requirements of their Vegetation Treatment General Order (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 will 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 impact are HYD-4, BIO-4, BIO-5, GEO-4, GEO-6, and AQ-3. As explained above, impacts on water quality resulting from the proposed project, including proposed revisions to the project description, compared to the Program EIR program description, would not constitute new or 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 will be implemented for any watercourses that are within treatment areas pursuant to SPR HYD-4. The potential for mechanical and manual treatment activities to violate water quality regulations or degrade water quality was examined in the 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, replant trees, 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 impact are HYD-1, HYD-4, HYD-5, GEO-1 through GEO-5, GEO-7, GEO-8, BIO-1, HAZ-1, and HAZ-5. This determination is consistent with the 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 no prescribed herbivory would occur.

IMPACT HYD-4

Initial and maintenance treatments would include the use of herbicides to manage resprouting native tree species within the treatment area. Herbicide application would be limited to ground-based methods, such as a using targeted spray from a backpack or reservoir carried by a UTV, or painting herbicide onto cut stems. All herbicide application would comply with EPA and California Department of Pesticide Regulation (DPR) 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 impact 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 impact 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 and revisions to SPRs constitute a revision to the Program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to hydrology and water quality that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. Impacts resulting from proposed revisions to SPRs and mitigation measures are consistent with the impacts analyzed in the program, as explained under relevant impacts above. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPRs and mitigation measures would not give rise to any new significant impacts. Therefore, no new impact related to hydrology and water quality would occur.

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 California State Parks, the County of Sacramento, the Sacramento Valley Conservancy in the Deer Creek Hills Preserve, and private landowners. In compliance with SPR AD-7, the project proponent would adhere to Sacramento County Code. As noted in Section 4.12, "Noise", below, treatment activities would take place during daytime hours consistent with Sacramento County Code. While there is potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using equipment would be typically limited to 6:00 a.m. to 8:00 p.m. Monday through Friday and 7:00 a.m. to 8:00 p.m. on Saturday and Sunday, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours, consistent with the Sacramento County Code. 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. Consistent with SPR AD-3, no conflict would occur. 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

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 (less than) the crew size analyzed in the Program EIR for the types of treatments proposed (i.e., approximately one to 15 crew members for each treatment type). 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

Initial and maintenance treatments would require heavy, noise-generating equipment. Manual, mechanical, and prescribed burning treatment activities as well as chipping/mastication and pile burning occurring adjacent to sensitive land uses could temporarily expose those receptors to noise levels that exceed local standards. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the Program EIR. The Noise Element of the Sacramento County General Plan provides a basis for comprehensive local policies to control and abate environmental noise and to protect citizens of the County from excessive noise exposure (County of Sacramento 2022). In addition, Section 6.68.070, "Exterior Noise Standards", and Section 6.68.080, "Interior Noise Standards", of the Sacramento County Code, establishes standards for acceptable exterior and interior noise levels. Section 6.68.090, "Exemptions", establishes that noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property are exempt from the County's noise standards, provided that these activities do not take place before 6:00 a.m. or after 8:00 p.m. any day except Saturday or Sunday, or before 7:00 a.m. or after 8:00 p.m. on Saturday or Sunday. The proposed treatment activities would use equipment similar to construction equipment and would be used during daytime hours per the County Code to avoid disturbance during noise-sensitive hours, resulting in similar noise sources associated with construction. As a result of the proposed project creating noise sources similar to those associated with construction, the proposed project would be considered exempt from the County's noise standards. Project noise-generating equipment would be used

intermittently between 6:00 a.m. and 8:00 p.m. during treatment on the weekdays and between 7:00 a.m. and 8:00 p.m. during treatment on the weekends. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using noise-generating equipment would be limited to 6:00 a.m. to 8:00 p.m. Monday through Friday, which would be consistent with Sacramento County Code and avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. In addition, equipment use would be intermittent, and equipment would move throughout the project area, such that noise increases at any one noise-sensitive receptor would be limited. Furthermore, SPRs AD-3 and NOI-1 through NOI-5 would be implemented. For any properties where noise-sensitive receptors are within 1,500 feet of a treatment area (e.g., residences), SPR NOI-6 would also apply. This impact is within the scope of the Program EIR because the number and types of equipment proposed, and the duration of equipment 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, 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. 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 16, Murieta Parkway, Colbert Drive, Jigger Court, Camino Del Lago Drive, Scott Road, and Latrobe Road. Vehicle traffic on area highways would not generate a noticeable increase in traffic-related noise. However, haul truck trips, used to transport biomass off site unlike pickup trucks which are used to transport equipment and crew members, would pass on the local roadways by residential receptors and the event of each truck passing by could increase 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. SPR NOI-1 is applicable to this treatment. 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. 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

Deer Creek Hills Preserve is the only recreation area present within the project area. Recreation trails are present within Deer Creek Hills Preserve such as Deer Creek Hill Preserve Trails Loop, Deer Creek Hills Loop, and other Sacramento Valley Conservancy trails. Recreation areas near the project area include Rancho Murieta Disc Golf Course, Rancho Murieta Country Club, Community Park, and Rancho Murieta Lake Clementia Amphitheater.

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. As mentioned above, Deer Creek Hills Preserve is located within the project area. Deer Creek Hills Preserve is a working cattle ranch and only portions of the property are occasionally open to the public. All visits must be pre-scheduled. The property is only open when Sacramento Valley Conservancy staff, lead docents, or licensees are on the property to host and check-in visitors (Sacramento Valley Conservancy n.d.). The potential for vegetation treatment activities to disrupt recreation activities, through directly impeding the use of an existing recreation resource or through disruption of a recreation experience, was examined in the Program EIR. While the Deer Creek Hills Preserve is available for public use only through pre-registering of activities, implementation of the proposed project could interrupt regularly scheduled events. 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 proposed treatment areas within the Deer Creek Hills (i.e., the only recreation resources within the treatment area) are entirely within the CalVTP 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	SU	Impact TRAN-3, pp. 3.15-11 – 3.15-13	Yes	NA	AQ-1	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 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 roadways throughout the project area, including SR 16 and roads within the Rancho Murieta community, including but not limited to, Murieta Parkway, Colbert Drive, Jigger Court, Camino Del Lago Drive, Scott Road, and Latrobe 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 increase in traffic related to treatments are within the scope of the Program EIR because the treatment duration and limited number of vehicles (i.e., heavy equipment transport, crew vehicles for crew members and biomass hauling offsite) 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 impact 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 impact 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 treatment areas. 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 one to 15 crew members for each treatment activity. 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. While carpooling would be encouraged under Mitigation Measure AQ-1, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. 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 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	SU	Impact UTIL-2, pp. 3.16-10 – 3.16-12	Yes	UTIL-1	NA	SU	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; SU = 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 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 to be available as a safety precaution. If needed to extinguish the burn, water would be supplied on-site from water trucks. 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 treatment areas. Biomass generated by mechanical and manual treatments would be disposed of with pile burning or mulching or lopping and scattering, or hauling biomass offsite in areas where material cannot safely be burned. Invasive plant and noxious weed biomass would also be treated onsite (e.g., mowing, cultivating or plowing, removal by hand, prescribed burning), when possible, to eliminate seed and propagules. If invasive plant biomass cannot be treated onsite, it may be disposed of off-site at an appropriate waste collection facility. Some biomass may be hauled off-site (e.g., excess chips, invasive plants and noxious weeds). The potential for solid waste generation to exceed state standards or local infrastructure capacity was examined in the Program EIR. 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 to handle biomass. While the amount of biomass generated is not expected to exceed the capacity of existing local infrastructure in Sacramento County, because the project would potentially generate biomass needing off-site disposal, it could contribute to the environmental significance conclusion in the Program EIR; therefore, for purposes of CEQA compliance, this PSA notes the impact as potentially significant and unavoidable. This impact is within the scope of activities and impacts addressed in the Program EIR because the type and amount of biomass generated that may need to be disposed of off-site are consistent with those analyzed in the Program EIR. 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.

IMPACT UTIL-3

As discussed above, initial and maintenance treatments would generate biomass. Biomass generated by mechanical and manual treatments would be disposed of with chipping, masticating, lopping and scattering, or hauling biomass offsite. Invasive plant and noxious would be treated onsite, when possible. If invasive plant biomass cannot be treated onsite, there is the potential to be disposed of offsite at an appropriate waste collection facility. If offsite disposal is needed, Sacramento County 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 treatment 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	AD-3 AQ-3 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.

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 mechanical treatments, manual treatments, herbicide application, and prescribed burning. Vegetation treatment involving motorized equipment could pose a risk of accidental ignition. Temporary increases in risk associated with uncontrolled fire from prescribed burns could also occur. As discussed in Section 3.17.1, "Environmental Setting" in Volume II of the Final Program EIR, under "Prescribed Burn Planning and Implementation," implementing a prescribed burn requires extensive planning, including the preparation of prescribed burn plans, smoke management plans, site-specific weather forecasting, public notifications, safety considerations, and ultimately favorable weather conditions so a burn can occur on a given day. Prior to implementing a broadcast burn, fire containment lines would be established by clearing vegetation surrounding the designated burn area to help prevent the accidental escape of fire. Water containers and safety equipment would be staged onsite as necessary. The proposed project would also abide by Deer Creek Hills Master Plan management features to reduce the severity and likelihood of fire by reducing the fuel load through vegetation control, storing water in the vicinity of the holding area to enhance emergency response capabilities, and using emergency access locks on the Latrobe Road gates (Sacramento County 2009).

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 impact are AD-3, AQ-3, 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 mechanical and manual vegetation treatment, herbicide application, and prescribed burning, 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 and 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 treatment 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. As explained above, impacts related to wildfire risk resulting from the proposed project would not constitute new or 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 and revisions to SPRs constitute a revision to the Program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to 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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Attachment A

Mitigation Monitoring and
Reporting Program for the
Cosumnes Ladder Fuel Reduction Project

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment." A Mitigation Monitoring and Reporting Program (MMRP) is required for approval of the proposed project because the Project-Specific Analysis/Addendum to the California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (Program EIR) (PSA/Addendum) identifies potential significant adverse impacts and all feasible mitigation measures have been adopted. Standard project requirements (SPRs), which are part of the project description, have been incorporated to avoid or minimize adverse effects. Where potentially significant impacts remain after application of SPRs, mitigation measures have been identified to further reduce and/or compensate for those impacts. While only mitigation measures are required to be covered in an MMRP, both SPRs and mitigation are included in this MMRP to assist in implementation of all environmental protection features of later activities consistent with the CalVTP Program EIR.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

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

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, Sacramento County is responsible for taking all actions necessary to implement the mitigation measures under its jurisdiction according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. Sacramento County will be responsible for implementation of mitigation measures pursuant to Section 15097 of the State CEQA Guidelines.

REPORTING

Sacramento County shall document and describe the compliance of the project treatment work with the required SPRs and mitigation measures either by adapting the project-specific MMRP table or preparing a separate post-project implementation report pursuant to the requirements of SPR AD-7.

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

The categories identified in the attached MMRP table are described below.

- SPRs and Mitigation Measures – This column provides the text of the applicable SPR or adopted mitigation measure.

- **Timing** – This column identifies the time frame in which the SPR or mitigation measure will be implemented.
- **Implementing Entity** – This column identifies the party responsible for implementing the SPR or mitigation measure.
- **Verifying/Monitoring Entity** – This column identifies the party responsible for verifying and monitoring implementation of the SPR or mitigation measure.

QUALIFICATION REQUIREMENTS FOR BIOLOGICAL AND CULTURAL RESOURCE MEASURES

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

Archaeologically Trained Resource Professional: To be qualified, an archaeologically-trained resource professional would hold a valid Archaeological Training Certificate issued by CAL FIRE and the Board of Forestry and Fire Protection or equivalent state or local agency training or certification.

Qualified Archaeologist: To be qualified, an archaeologist would hold a Prehistoric Archeology, Historic Archeology, Conservation, Cultural Anthropology, or Curation degree from an accredited university and meet the Secretary of Interior's Qualifications Standards (36 CFR Part 61). The project proponent will review the resume and approve the qualifications of the archaeologists.

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

Qualified RPF or Biologist: To be qualified, an RPF or biologist would hold a wildlife biology, botany, ecology, forestry, or other relevant degree from an accredited university and: 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting field surveys of relevant species or resources, 4) be knowledgeable about survey protocols, 5) be knowledgeable about state and federal laws regarding the protection of special-status species, and 6) have experience with CDFW's California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS). The project proponent will review the resume and approve the qualifications of RPFs or biologists. If species-specific protocol surveys are performed, surveys would be conducted by qualified RPFs or biologists with the minimum qualifications required by the appropriate protocols, including having CDFW or USFWS approval to conduct such surveys, if required by certain protocols.

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

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Administrative Standard Project Requirements				
SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE will meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE will also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County
SPR AD-2 Delineate Protected Resources: The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. "Protected Resources" refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester or biologist). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County
SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent will design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County
SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent will: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	At least three days prior to prescribed burn activities	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to, during, and following treatment	Sacramento County	Sacramento County
SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent will post signs in a conspicuous location near the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.	**Initial Treatment: Y** **Treatment Maintenance: Y**	One to three days prior to the treatment activities	Sacramento County	Sacramento County
SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP Program EIR for CEQA compliance, the project proponent will provide the information listed below to the Board of Forestry and Fire Protection (Board) or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. Information on proposed projects (PSA in progress): ▶ GIS data that include project location (as a point), or project latitude/longitude; ▶ project size (typically acres); ▶ treatment types and activities; and ▶ contact information for a representative of the project proponent. The project proponent will provide information on the proposed project to the Board or CAL FIRE as early as feasible in the planning phase. The project proponent will provide this information to the Board or CAL FIRE with sufficient lead time to allow those agencies to make the information available to the public at least two weeks prior to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website). Information on approved projects (PSA complete): ▶ A completed PSA Environmental Checklist; ▶ A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist);	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to, during, and following treatment **Information on the proposed project (PSA and Addendum in progress) was submitted to CAL FIRE on June 1, 2023.**	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ GIS data that include a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction) Information on completed projects (following initial treatment): ▶ GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction) ▶ A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes ■ Size of treated area (typically acres); ■ Treatment types and activities; ■ Dates of work; ■ A list of the SPRs and mitigation measures that were implemented ■ Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b). This SPR applies to all treatment activities and all treatment types, including treatment maintenance.				
Aesthetic and Visual Resource Standard Project Requirements				
SPR AES-1 Vegetation Thinning and Edge Feathering: The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR AES-2 Avoid Staging within Viewsheds: The project proponent will store all treatment-related materials, including vehicles, vegetation treatment debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project proponent will also locate materials staging and storage areas outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AES-3 Provide Vegetation Screening: The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
Air Quality Standard Project Requirements				
SPR AQ-1 Comply with Air Quality Regulations: The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR AQ-2 Submit Smoke Management Plan: The project proponent will submit a smoke management plan for all prescribed burns to the applicable air district, in accordance with 17 CCR Section 80160. Pursuant to this regulation a smoke management plan will not be required for burns less than 10 acres that also will not be conducted near smoke sensitive areas, unless otherwise directed by the air district. Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. Example of a smoke management plan is in Appendix PD-2. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to prescribed burn treatment activities	Sacramento County	Sacramento County
SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating. The project proponent will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to prescribed burn treatment activities	Sacramento County	Sacramento County
SPR AQ-4 Minimize Dust: To minimize dust during treatment activities, the project proponent will implement the following measures: ▶ Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations. ▶ Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113. ▶ Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may "cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property," per Health and Safety Code Section 41700. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR AQ-5 Avoid Naturally Occurring Asbestos: The project proponent will avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per maps and guidance published by the California Geological Survey, unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area. Any NOA-related guidance provided by the applicable air district will be followed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County
SPR AQ-6: Prescribed Burn Safety Procedures. Prescribed burns planned and managed by non-CAL FIRE crews will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP). The IAP will include the burn dates; burn hours; weather limitations; the specific burn prescription; a communications plan; a medical plan; a traffic plan; and special instructions such as minimizing smoke impacts to specific local roadways. The IAP will also assign	**Initial Treatment: Y** **Treatment Maintenance: Y**	During prescribed burn treatment activities	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.				
Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements				
SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment **Record search of project area and 0.25-mile buffer surrounding project area has been conducted; see PSA/Addendum for a summary of results.**	Sacramento County	Sacramento County
SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, the project proponent will notify the California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following: ▶ A written description of the treatment location and boundaries. ▶ Brief narrative of the treatment objectives. ▶ A description of the activities used (e.g., prescribed burning, mastication) and associated acreages. ▶ A map of the treatment area at a sufficient scale to indicate the spatial extent of activities. ▶ A request for information regarding potential impacts to cultural resources from the proposed treatment. ▶ A detailed description of the depth of excavation, if ground disturbance is expected. In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment **[List of Tribes provided on 6/15/23].**	Sacramento County	Sacramento County
SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically-trained resource professional and/or qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological or historical resources near or within the treatment area. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County
SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. The project proponent, in consultation with culturally affiliated tribe(s), will develop effective protection measures for important cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, enforceable language, and will be included in the survey report in accordance with applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County
SPR CUL-6 Treatment of Tribal Cultural Resources: The project proponent, in consultation with the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. The project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. The project proponent will defer implementing the treatment until the tribe approves protection measures, or if agreement cannot be reached after a good-faith	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
effort, the proponent determines that any or all feasible measures have been implemented, where feasible, and the resource is either avoided or protected. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. Within a buffer of 100 feet of the built historical resource, there will be no prescribed burning or mechanical treatment activities Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a qualified archaeologist. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County
SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County
Biological Resources Standard Project Requirements				
SPR BIO-1: Review and Survey Project-Specific Biological Resources. The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment, no more than one year prior to the submittal of the PSA, and no more than one year between completion of the PSA and implementation of the treatment project. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this Program EIR for the ecoregion(s) where the treatment will occur. It will also include review of the best available, current data for the area, including vegetation mapping data, species distribution/range information, CNDDB, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, relevant BIOS queries, and relevant general and regional plans. Reconnaissance-level biological surveys will be general surveys that include visual and auditory inspection for biological resources to help determine the environmental setting of a project site. The qualified surveyor will 1.) identify and document sensitive resources, such as riparian or	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment **Initial data review and reconnaissance-level survey have been conducted; see PSA/Addendum for summary of results.**	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
other sensitive habitats, sensitive natural community, wetlands, or wildlife nursery site or habitat (including bird nests), and 2.) assess the suitability of habitat for special-status plant and animal species. The surveyor will also record any incidental wildlife observations. For each treatment project, habitat assessments will be completed at a time of year that is appropriate for identifying habitat and no more than one year prior to the submittal of the PSA, unless it can be demonstrated in the PSA that habitat assessments older than one year remain valid (e.g., site conditions are unchanged and no treatment activity has occurred since the assessment). If more than one year passes between completion of the PSA and initiation of the treatment project, the project proponent will verify the continued accuracy of the PSA prior to beginning the treatment project by reviewing for any data updates and/or visiting the site to verify conditions. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment:				
1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided**. If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment: a. by physically avoiding the suitable habitat, or b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites). Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist. **Project-Specific Guidance to Implement SPR BIO-1** <u>Special-status plants</u> ▶ To avoid impacts on non-ESA and -CESA annual and perennial geophyte species identified in Attachment B, non-ground-disturbing treatment activities (i.e., manual treatments prescribed burning, targeted herbicide application) will be implemented only during the dormant season for these species (i.e., when the plant has no aboveground parts), which would generally occur during the winter, if feasible. If				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
the limited operating period for annual and perennial geophyte species (i.e., only non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys will be required per SPR BIO-7. Note that ground-disturbing treatment activities (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and will not be conducted without prior implementation of SPR BIO-7). <u>Special-status wildlife</u> ▶ To avoid impacts on overwintering burrowing owls, all treatments will be conducted outside of the burrowing owl overwintering season (September 1–January 31) in habitats suitable for the species (e.g., grasslands). If it is not feasible to avoid certain treatments during the burrowing owl overwintering season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on other special-status birds, all treatments will be conducted outside of the nesting season (typically February 1 through August 31 but the active nesting season will be defined by the qualified RPF or biologist). If it is not feasible to avoid treatments during the nesting bird season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on monarch butterfly, all treatments will be conducted in grassland and oak woodland habitat outside of the season when monarch eggs, larvae, and pupae are likely to be present on milkweed host plants (i.e., treatment will be conducted outside of March 15 through October 31). This period may be adjusted by a qualified biologist or RPF to reflect local timing of monarch breeding. If it is not feasible to avoid treatments during this sensitive season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on American badger, manual treatments and broadcast burning will be conducted outside of the pupping season (February 15 through July 1). If it is not feasible to avoid manual treatments using power equipment and any prescribed burning during pupping season, SPR BIO-10 will be implemented. SPR BIO-10 will be implemented year-round for mechanical treatment activities and pile burning. ▶ To avoid impacts to pallid bat maternity roosts, avoid mechanical treatments, manual treatments using power equipment, and prescribed burning during the bat maternity season (April 1 through August 31) in habitat suitable for roosting. If it is not feasible to avoid the bat maternity season, SPR BIO-10 will be implemented. ▶ To avoid impacts on ringtail, mechanical treatments, manual treatment using power equipment, or prescribed burning within habitat suitable for the species (e.g., oak woodlands, riparian habitat), would not be implemented during the ringtail				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
maternity season (April 15 through June 30). If it is not feasible to avoid mechanical treatments, manual treatment using power equipment, or prescribed burning activities during the ringtail maternity season, SPR BIO-10 will be implemented. 2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided**. Further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey requirements are presented for special-status plants in SPR BIO-7). This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Guidance to Implement SPR BIO-1** [Note to Reviewers: this section may be updated after consultation with USFWS and CDFW has concluded]. <u>Special-Status Wildlife</u> Because there is no reliable season during which all impacts on California tiger salamander, coast horned lizard, western pond turtle, western spadefoot, Crotch bumble bee, valley elderberry longhorn beetle, conservancy fairy shrimp, vernal pool fairy shrimp, or vernal pool tadpole shrimp could be avoided and avoidance of habitat is not feasible for these species, implementation of SPR BIO-10 would be required for these species.				
SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. The training will instruct workers	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
when it is appropriate to stop work and allow wildlife encountered during treatment activities to leave the area unharmed and when it is necessary to report encounters to a qualified RPF, biologist, or biological technician. The qualified RPF, biologist, or biological technician will immediately contact CDFW or USFWS, as appropriate, if any wildlife protected by the California Endangered Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (without being handled). This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Sensitive Natural Communities and Other Sensitive Habitats				
SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will: ▶ require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of *A Manual of California Vegetation* (including updated natural communities data at http://vegetation.cnps.org/), or referring to relevant reports (e.g., reports found on the VegCAMP website). ▶ map and digitally record, using a Global Positioning System (GPS), the limits of any potential sensitive habitat and sensitive natural community identified in the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County
SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats: ▶ Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species. ▶ Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements. ▶ Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see *Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service*). ▶ Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided. ▶ Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. This will consist of the minimum disturbance area necessary to reduce hazardous fuels and return the riparian community to a natural fire regime (i.e., Condition Class 1) considering historic fire return intervals, climate change, and land use constraints. ▶ Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry. ▶ The project proponent will notify CDFW when required by ~~pursuant to~~ California Fish and Game Code Section 1602 prior to implementing any treatment activities in				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
riparian habitats. Notification will identify the treatment activities, map the vegetation to be removed, identify the impact avoidance identification methods to be used (e.g., flagging), and appropriate protections for the retention of shaded riverine habitat, including buffers and other applicable measures to prevent erosion into the waterway. ▶ In consideration of spatial variability of riparian vegetation types and condition and consistent with California Forest Practice Rules Section 916.9(v) (February 2019 version), a different set of vegetation retention standards and protection measures from those specified in the above bullets may be implemented on a site-specific basis if the qualified RPF and the project proponent demonstrate through substantial evidence that alternative design measures provide a more effective means of achieving the treatment objectives and would result in effects to the Beneficial Functions of Riparian Zones equal or more favorable than those expected to result from application of the above measures. Deviation from the above design specifications, different protection measures and design standards will only be approved when the treatment plan incorporates an evaluation of beneficial functions of the riparian habitat and with written concurrence from CDFW. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR BIO-6: Prevent Spread of Plant Pathogens. When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement the following best management practices to prevent the spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle): ▶ clean and sanitize vehicles, equipment, tools, footwear, and clothes before arriving at a treatment site and when leaving a contaminated site, or a site in a county where contamination is a risk; ▶ include training on *Phytopthora* diseases and other plant pathogens in the worker awareness training; ▶ minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment; ▶ minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination;	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area; and follow the procedures listed in Guidance for plant pathogen prevention when working at contaminated restoration sites or with rare plants and sensitive habitat (Working Group for *Phytoptheras* in Native Habitats 2016).This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status. If potentially occurring special-status plants are listed under CESA or ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS. For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.1 of this Program EIR, surveys will not be required under the following circumstances: ▶ If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys. ▶ If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
way that would make it unsuitable for the target species to reestablish following treatment. This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Guidance to Implement SPR BIO-7** ▶ If the limited operating period for annual and perennial geophyte species (i.e., non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys for these species will be conducted prior to implementation of treatments. ▶ Protocol-level surveys will be conducted for perennial species prior to implementation of treatments.				
Invasive Plants and Wildlife				
SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. The project proponent will take the following actions to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (e.g., New Zealand mudsnail): ▪ clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife; ▪ for all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species; ▶ inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas; ▶ stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area; ▶ identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatment methods will be selected based on the invasive	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
species present and may include herbicide application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles; ▶ treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and ▶ implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (Cal-IPC 2012, or current version). This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Wildlife				
SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries, monarch overwintering sites) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	No more than 14 days prior to treatment, unless otherwise specified in a protocol	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Project-Specific Guidance to Implement SPR BIO-10 ▶ (Applicable only south of the Cosumnes River) Because avoidance of habitat is not feasible, pursuant to SPR BIO-1, to avoid impacts to California tiger salamander, a qualified RPF or qualified biologist with the appropriate permits will 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 may be assumed. If California tiger salamander is detected during surveys or assumed present, Mitigation Measure BIO-2a will be implemented. ▶ Because avoidance of habitat is not feasible, pursuant to SPR BIO-1, to avoid impacts on western spadefoot, focused visual encounter surveys will be conducted prior to treatment activities, for western spadefoot and for potentially suitable burrows. ▪ Surveys will be conducted within aquatic habitat during the breeding/wet season (e.g., seeps, wetlands, streams, ponds, temporary pools), or occupancy may be assumed. If western spadefoot are not detected during focused surveys of aquatic habitat, no further survey is required. ▪ If western spadefoot are detected during focused surveys of aquatic habitat, or occupancy is assumed, upland habitat suitable for the species within approximately 860 feet of aquatic habitat will be surveyed prior to treatment activities. If burrows or other features potentially suitable for western spadefoot are detected, the RPF or qualified biologist will inspect the burrow to determine whether it is occupied (e.g., using a burrow scope). ▪ If western spadefoot is identified during focused surveys or assumed present, Mitigation Measure BIO-2b for these species will be implemented. ▶ Because avoidance of habitat is not feasible (pursuant to SPR BIO-1), to avoid impacts on western pond turtle, focused surveys for individuals and nests will be conducted by a qualified biologist or RPF prior to mechanical, manual, and prescribed burning treatment activities that occur in habitat suitable for western pond turtle. If western pond turtles are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ Because avoidance of habitat pursuant to SPR BIO-1 is not feasible, to avoid impacts on coast horned lizard, focused surveys for coast horned lizard will be conducted by a qualified biologist or RPF within habitat suitable for the species prior to implementation of mechanical, manual, and prescribed burning treatments.				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
If coast horned lizards are identified during focused surveys, or if presence is assumed, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid mechanical treatments during the burrowing owl overwintering season (September 1–January 31) in habitats suitable for the species, pursuant to SPR BIO-1, then surveys following the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) will be implemented. If active overwintering burrowing owl burrows are detected during protocol surveys, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid all treatments during the nesting bird season (typically February 1 through August 31 but the active nesting season will be defined by the qualified RPF or biologist), pursuant to SPR BIO-1, focused surveys (i.e., nest searches) for nests of special-status species (i.e., bald eagle, burrowing owl, golden eagle, Swainson's hawk, northern harrier, white-tailed kite, California black rail, grasshopper sparrow, loggerhead shrike, and tricolored blackbird) will be conducted in habitat suitable for the species prior to implementing treatment activities during the nesting bird season. If nesting special-status birds are detected during focused surveys, Mitigation Measure BIO-2a or BIO-2b will be implemented depending on the species detected. ▶ Because avoidance of habitat pursuant to SPR BIO-1 is not feasible, to avoid impacts on Crotch bumble bee, habitat assessment and focused surveys will be conducted by a qualified biologist or RPF within habitat potentially suitable for Crotch bumble bee would be conducted following the *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023) prior to implementation of mechanical, manual, herbicide application, and prescribed burning, or presence of this species in potentially suitable habitat will be assumed and Mitigation Measure BIO-2g will apply. ▶ If it is not feasible to avoid all treatments in grasslands and oak woodland habitat during the period when monarch may be breeding (March 15 through Oct 31) pursuant to SPR BIO-1, focused surveys for milkweed host plants (*Asclepias* spp.) will be conducted prior to implementing treatment activities. If milkweed are detected during focused surveys, further survey for monarch butterfly eggs, larvae, and pupae may be conducted or presence of monarch may be assumed. If milkweed host plants are detected during focused surveys and monarch butterfly is detected or assumed present, Mitigation Measure BIO-2e will be implemented. ▶ Because avoidance of habitat pursuant to SPR BIO-1 is not feasible, to avoid impacts on valley elderberry longhorn beetle, surveys will be conducted by a qualified biologist or RPF within habitat suitable for valley elderberry longhorn				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
beetle prior to implementation of all treatment activities, following the *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017a). If the procedures in the protocol survey detect valley elderberry longhorn beetle or indicate likely occupancy of a treatment area by the species, Mitigation Measure BIO-2d will apply. ▶ Because avoidance of habitat pursuant to SPR BIO-1 is not feasible, to avoid impacts on conservancy fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp, surveys will be conducted within aquatic habitat for these species prior to implementing all treatment activities following *Survey Guidelines for the Listed Large Branchiopods* (USFWS 2017b). If protocol surveys detect conservancy fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp, or if presence of these species is assumed, Mitigation Measure BIO-2a will apply. ▶ To avoid impacts on American badger, focused den surveys will be conducted prior to implementing manual treatment activities and all prescribed burning during the pupping season (February 15 through July 1) and for mechanical treatments and pile burning year-round. If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid mechanical treatments, manual treatments using power equipment, and prescribed burning treatments within habitat suitable for pallid bat roosting during the bat maternity season (April 1 through August 31) pursuant to SPR BIO-1, focused surveys for maternity roosts will be conducted by a qualified RPF or biologist prior to implementing these treatment activities during the bat maternity season. If pallid bat maternity roosts are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid mechanical treatments, manual treatment using power equipment, or prescribed burning activities within habitat suitable for ringtail during the ringtail maternity season (pursuant to SPR BIO-1), focused surveys for ringtail will be conducted using trail cameras, track plates, and other non-invasive survey methods to determine whether ringtails are present within the treatment area. Surveys will be conducted by a qualified RPF or biologist with the appropriate permits, or presence may be assumed. If ringtails are detected during focused surveys, or presence is assumed, Mitigation Measure BIO-2a will be implemented.				
SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). If temporary fencing is required for prescribed herbivory treatment, a wildlife-friendly fencing design will be used. The project proponent will require a qualified RPF or biologist to review and approve the design before installation to minimize the risk of wildlife entanglement. The fencing design will meet the following standards:	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale or snag a leaping animal; and, if feasible, keeping electric netting-type fencing electrified at all times or laid down while not in use. ▶ Charge temporary electric fencing with intermittent pulse energizers; continuous output fence chargers will not be permitted. ▶ Allow wildlife to jump over easily without injury by installing fencing that can flex as animals pass over it and installing the top wire low enough (no more than approximately 40 inches high on flat ground) to allow adult ungulates to jump over it. The determination of appropriate fence height will consider slope, as steep slopes are more difficult for wildlife to pass. ▶ Be highly visible to birds and mammals by using high-visibility tape or wire, flagging, or other markers. This SPR applies only to prescribed herbivory and all treatment types, including treatment maintenance.				
SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP Program EIR. The active nesting season will be defined by the qualified RPF or biologist. If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to	**Initial Treatment: Y** **Treatment Maintenance: Y**	Conduct a survey for common nesting birds (if needed) at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies (typically no more than approximately 14 days before treatment); if an active nest is observed, implement avoidance strategies prior to and during treatment	Sacramento County	Sacramento County

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

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

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Project-Specific Implementation To prevent herbicides from being mobilized and soil from being compacted which increases runoff and erosion risk, the project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if: (1) it is raining, (2) soils are saturated, and/or (3) soils are wet enough to mobilize herbicides or be compacted by mechanical or prescribed herbivory activities. The project proponent will be prepared to completely suspend mechanical and herbicide treatment activities prior to the initiation of the rain event. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer very wet or saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of very wet or saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, (5) inadequate traction without blading wet soil or surfacing materials, or (6) tire track imprints or hoof marks in the soil. This SPR applies only to mechanical and herbicide treatment activities and all treatment types, including treatment maintenance.				
SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. If use of heavy equipment is required in saturated areas, other measures such as operating on organic debris, using low ground pressure vehicles, or operating on frozen soils/snow covered soils will be implemented to minimize soil compaction. Existing compacted road surfaces are exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments, and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If mechanical, prescribed herbivory, or prescribed burn treatment activities could result in substantial sediment discharge from soil disturbed by machinery, animal hooves, or being bare, organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high,	**Initial Treatment: Y** **Treatment Maintenance: Y**	During mechanical and prescribed burn treatment activities that result in exposure of bare soil over 50 percent or more of the treatment area	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical, prescribed herbivory, and prescribed burns that result in exposure of bare soil over 50 percent of the project area treatment activities and all treatment types, including treatment maintenance.				
SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. If erosion control measures are not properly implemented, they will be remediated prior to the first rainfall event per SPR GEO-3 and GEO-8. Additionally, the project proponent will inspect for evidence of erosion after the first large storm or rainfall event (i.e., ≥ 1.5 inches in 24 hours) as soon as is feasible after the event. Any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours per the methods stated in SPRs GEO-3 and GEO-8. This SPR applies only to mechanical, prescribed herbivory, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season; if erosion control measures are not properly implemented, remediate prior to the first rainfall event; inspect for evidence of erosion after the first large storm or rainfall event (i.e., greater than 1.5 inches in 24 hours) as soon as is feasible after the event; any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours	Sacramento County	Sacramento County
SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules (February 2019 version). Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface run-off to be concentrated on downslopes, other erosion controls will be installed as needed to maintain site productivity by minimizing soil loss. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During mechanical, manual, and prescribed burn treatment activities	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. In addition, burn piles will not occupy more than 15 percent of the total treatment area (Busse et al. 2014). The project proponent will not locate burn piles in a Watercourse and Lake Protection Zone as defined in SPR HYD-4. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During mechanical, manual, and prescribed burn treatment activities	Sacramento County	Sacramento County
SPR GEO-7 Minimize Erosion: To minimize erosion, the project proponent will: (1) Prohibit use of heavy equipment where any of the following conditions are present: (i) Slopes steeper than 65 percent. (ii) Slopes steeper than 50 percent where the erosion hazard rating is high or extreme. (iii) Slopes steeper than 50 percent that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake. (2) On slopes between 50 percent and 65 percent where the erosion hazard rating is moderate, and all slope percentages are for average slope steepness based on sample areas that are 20 acres, or less, heavy equipment will be limited to: (i) Existing tractor roads that do not require reconstruction, or (ii) New tractor roads flagged by the project proponent prior to the treatment activity. (3) Prescribed herbivory treatments will not be used in areas with over 50 percent slope. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). If unstable areas or soils are identified within the treatment area, are unavoidable, and will be potentially directly or indirectly affected by the treatment, a licensed geologist (P.G. or C.E.G.) will determine the potential for landslide, erosion, of other issue related to unstable soils and identity measures (e.g., those in SPR GEO-7) that will be implemented by the project proponent such that substantial erosion or loss of topsoil would not occur. This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment on slopes greater than 50 percent	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Hazardous Material and Public Health and Safety Standard Project Requirements				
SPR HAZ-1 Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. Prior to the start of treatment activities, the project proponent will inspect all equipment for leaks and inspect everyday thereafter until equipment is removed from the site. Any equipment found leaking will be promptly removed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Inspect all equipment for leaks prior to treatment; inspect everyday thereafter until equipment is removed from the site; promptly remove any leaking equipment; maintain all diesel- and gasoline-powered equipment per manufacturer's specifications and in compliance with all state and federal emissions requirements during treatment	Sacramento County	Sacramento County
SPR HAZ-2 Require Spark Arrestors: The project proponent will require mechanized hand tools to have federal- or state-approved spark arrestors. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During manual treatment activities	Sacramento County	Sacramento County
SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance. **Project-Specific Implementation** Implement Deer Creek Hills Preserve Master Plan onsite water storage requirement: On-site water storage capacity to be located in the vicinity of the Holding Area will enhance emergency response capabilities for fires. The size and capacity requirements for such a facility should be based on an evaluation of probable demand resulting from a wildfire occurrence. Siting the facility close to Latrobe Road would enable rapid access and deployment.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During manual treatment activities	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HAZ-4 Prohibit Smoking in Vegetated Areas: The project proponent will require that smoking is only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR HAZ-5 Spill Prevention and Response Plan: The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to provide protection to onsite workers, the public, and the environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. The SPRP will include (but not be limited to): ▶ a map that delineates staging areas, and storage, loading, and mixing areas for herbicides; ▶ a list of items required in an onsite spill kit that will be maintained throughout the life of the activity; ▶ procedures for the proper storage, use, and disposal of any herbicides, adjuvants, or other chemicals used in vegetation treatment. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prepare SPRP prior to beginning any herbicide treatment activities; implement measures during herbicide treatment activities	Sacramento County	Sacramento County
SPR HAZ-6 Comply with Herbicide Application Regulations: The project proponent will coordinate pesticide use with the applicable County Agricultural Commissioner(s), and all required licenses and permits will be obtained prior to herbicide application. The project proponent will prepare all herbicide applications to do the following: ▶ Be implemented consistent with recommendations prepared annually by a licensed PCA. ▶ Comply with all appropriate laws and regulations pertaining to the use of pesticides and safety standards for employees and the public, as governed by the EPA, DPR, and applicable local jurisdictions. ▶ Adhere to label directions for application rates and methods, storage, transportation, mixing, container disposal, and weather limitations to application such as wind speed, humidity, temperature, and precipitation. ▶ Be applied by an applicator appropriately licensed by the State. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to herbicide treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HAZ-7 Triple Rinse Herbicide Containers: The project proponent will triple rinse all herbicide and adjuvant containers with clean water at an approved site, and dispose of rinsate by placing it in the batch tank for application per 3 CCR Section 6684. The project proponent will puncture used containers on the top and bottom to render them unusable, unless said containers are part of a manufacturer's container recycling program, in which case the manufacturer's instructions will be followed. Disposal of non-recyclable containers will be at legal dumpsites. Equipment will not be cleaned, and personnel will not be washed in a manner that would allow contaminated water to directly enter any body of water within the treatment area or adjacent watersheds. Disposal of all herbicides will follow label requirements and waste disposal regulations. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During herbicide treatment	Sacramento County	Sacramento County
SPR HAZ-8 Minimize Herbicide Drift to Public Areas: The project proponent will employ the following herbicide application parameters during herbicide application to minimize drift into public areas: ▶ application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative); ▶ spray nozzles will be configured to produce the largest appropriate droplet size to minimize drift; ▶ low nozzle pressures (30-70 pounds per square inch) will be utilized to minimize drift; and ▶ spray nozzles will be kept within 24 inches of vegetation during spraying. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During herbicide treatment	Sacramento County	Sacramento County
SPR HAZ-9 Notification of Herbicide Use in the Vicinity of Public Areas: For herbicide applications occurring within or adjacent to public recreation areas, residential areas, schools, or any other public areas within 500 feet, the project proponent will post signs at each end of herbicide treatment areas and any intersecting trails notifying the public of the use of herbicides. The signs will include the signal word (i.e., Danger, Warning or Caution), product name, and manufacturer; active ingredient; EPA registration number; target pest; treatment location; date and time of application; restricted entry interval, if applicable per the label requirements; date which notification sign may be removed; and a contact person with a telephone number. Signs will be posted prior to the start of treatment and notification will remain in place for at least 72 hours after treatment	**Initial Treatment: Y** **Treatment Maintenance: Y**	During herbicide treatment activities occurring within or adjacent to public recreation areas, residential areas, schools, or any other public areas within 500 feet	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
ceases. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.				
Hydrology and Water Quality Standard Project Requirements				
SPR HYD-1 Comply with Water Quality Regulations: Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Implementation** Vegetation treatment activities may result in discharges to waters of the state; therefore; compliance with Water Code sections 13260(a)(1) and 13264 are required. The project proponent will use the State Water Board's Vegetation Treatment General Order, which provides a mechanism for Water Code compliance for projects that prepare a CalVTP PSA or PSA/Addendum. The project will be automatically enrolled (through implementation of SPR AD-7) in the State Water Board's Vegetation Treatment General Order. The project's automatic enrollment satisfies the requirements of SPR HYD-1.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HYD-2 Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during prescribed herbivory treatment	Sacramento County	Sacramento County
SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is based on 14 CCR Section 916 .5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Establish WLPZs during design of treatment project; implement WLPZ protections during treatment	Sacramento County	Sacramento County

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

Water Class	Class I	Class II	Class III	Class IV
Water Class Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.	1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for nonfish aquatic species. 3) Excludes Class III waters that are tributary to Class I waters.	No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high-water flow conditions after completion of timber operations.	Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.
WLPZ Width (ft) – Distance from top of bank to the edge of WLPZ				
< 30 % Slope	75	50	Sufficient to prevent the degradation of downstream beneficial uses of water. Determined on a site-specific basis.	
30-50 % Slope	100	75		
>50 % Slope	150	100		

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

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
The following WLPZ protections will be applied for all treatments: ▶ Treatment activities with WLPZs will retain at least 75 percent surface cover and undisturbed area to act as a filter strip for raindrop energy dissipation and for wildlife habitat. If this percentage is reduced a qualified RPF will provide the project proponent with a site- and/or treatment activity-specific explanation for the percent surface cover reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced percent as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). This requirement is based on 14 CCR Section 916.4 [936.4, 956.4] Subsection (b)(6) (February 2019 version) and 14 CCR Section 916.5 (February 2019 version). ▶ Equipment, including tractors and vehicles, must not be driven in wet areas or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry. ▶ Equipment used in vegetation removal operations will not be serviced in WLPZs, within wet meadows or other wet areas, or in locations that would allow grease, oil, or fuel to pass into lakes, watercourses, or wet areas. ▶ WLPZs will be kept free of slash, debris, and other material that harm the beneficial uses of water. Accidental deposits will be removed immediately. ▶ Burn piles will be located outside of WLPZs. ▶ No fire ignition (nor use of associated accelerants) will occur within WLPZs however low intensity backing fires may be allowed to enter or spread into WLPZs. ▶ Within Class I and Class II WLPZs, locations where project operations expose a continuous area of mineral soil 800 square feet or larger shall be treated for reduction of soil loss. Treatment shall occur prior to October 15th and disturbances that are created after October 15th shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies and may include but are not limited to mulching, rip-rap, grass seeding, or chemical soil stabilizers. ▶ Where mineral soil has been exposed by project operations on approaches to watercourse crossings of Class I, II, or III within a WLPZ, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse. ▶ Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes. ▶ Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: The project proponent will implement the following measures when applying herbicides: ▶ Locate herbicide mixing sites in areas devoid of vegetation and where there is no potential of a spill reaching non-target vegetation or a waterway. ▶ Use only herbicides labeled for use in aquatic environments when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides will be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry. ▶ No terrestrial or aquatic herbicides will be applied within WLPZs of Class I and II watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ provided that the project proponent notifies the applicable regional water quality control board no fewer than 15 days prior to herbicide application. The feasibility of avoiding herbicide application within WLPZ of Class I and II watercourses will be determined by the project proponent and may be based on whether doing so will preclude achieving CalVTP program objectives, including, but not limited to, protection of vulnerable communities. The reasons for infeasibility will be documented in the PSA. ▶ No herbicides will be applied within a 50-foot buffer of ESA or CESA listed plant species or within 50 feet of dry vernal pools. ▶ For spray applications in and adjacent to habitats suitable for special-status species, use herbicides containing dye (registered for aquatic use by DPR, if warranted) to prevent overspray. ▶ Application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative).	**Initial Treatment: Y** **Treatment Maintenance: Y**	During herbicide treatment activities	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ No herbicide will be applied during precipitation events or if precipitation is forecast 24 hours before or after project activities. This SPR applies to herbicide treatment activities and all treatment types, including treatment maintenance.				
SPR HYD-6 Protect Existing Drainage Systems: If a treatment activity is adjacent to a roadway with stormwater drainage infrastructure, the existing stormwater drainage infrastructure will be marked prior to ground disturbing activities. If a drainage structure or infiltration system is inadvertently disturbed or modified during project activities, the project proponent will coordinate with owner of the system or feature to repair any damage and restore pre-project drainage conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Mark existing stormwater drainage infrastructure prior to ground disturbing activities; if a drainage structure or infiltration system is inadvertently disturbed or modified during treatment, coordinate with owner to repair damage and restore pre-project drainage conditions	Sacramento County	Sacramento County
Noise Standard Project Requirements				
SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: The project proponent will require that operation of heavy equipment associated with treatment activities (heavy off-road equipment, tools, and delivery of equipment and materials) will occur during daytime hours if such noise would be audible to receptors (e.g., residential land uses, schools, hospitals, places of worship). Cities and counties in the treatable landscape typically restrict construction-noise (which would apply to vegetation treatment noise) to particular daytime hours. If the project proponent is subject to local noise ordinance, it will adhere to those to the extent the project is subject to them. If the applicable jurisdiction does not have a noise ordinance or policy restricting the time-of-day when noise-generating activity can occur noise-generating vegetation treatment activity will be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday and federal holidays. If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR NOI-2 Equipment Maintenance: The project proponent will require that all powered treatment equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses: The project proponent will locate treatment activities, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	Sacramento County
Recreation Standard Project Requirements				
SPR REC-1 Notify Recreational Users of Temporary Closures. If a treatment activity would require temporary closure of a public recreation area or facility, the project proponent will coordinate with the owner/manager of that recreation area or facility. If temporary closure of a recreation area or facility is required, the project proponent will	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment and implement during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Transportation Standard Project Requirements				
SPR TRAN-1 Implement Traffic Control during Treatments: Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the CalVTP. Measures included in the TMP could include (but are not be limited to) construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities, flaggers for lane closures to provide temporary traffic control along affected roadway facilities, treatment schedule restrictions to avoid seasons or time periods of peak vehicle traffic, haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of vegetation treatment projects. This SPR applies to all treatment activities and treatment types, including treatment maintenance. Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prepare TMP prior to treatment and implement during treatment	Sacramento County	Sacramento County

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Public Services and Utilities Standard Project Requirements				
SPR UTIL-1: Solid Organic Waste Disposition Plan. For projects requiring the disposal of material outside of the treatment area, the project proponent will prepare an Organic Waste Disposition Plan prior to initiating treatment activities. The Solid Organic Waste Disposition Plan will include the amount (e.g., tons) of solid organic waste to be managed onsite (i.e., scattering of wood materials, generating unburned piles, and pile burning) and transported offsite for processing (i.e., biomass power plant, wood product processing facility, composting). If the project proponent intends to transport solid organic waste offsite, the Solid Organic Waste Disposition Plan will clearly identify the location and capacity of the intended processing facility, consistent with local and state regulations to demonstrate that adequate capacity exists to accept the treated materials. This SPR applies only to mechanical and manual treatment activities and all treatment types, including treatment maintenance.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prepare an Organic Waste Disposition Plan prior to mechanical or manual treatment activities; implement plan during mechanical or manual treatment activities	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Air Quality				
Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible. Techniques for reducing emissions may include, but are not limited to, the following: ▶ Diesel-powered off-road equipment used in construction will meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment. ▶ Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria: ▪ meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer; ▪ be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables; ▪ contain no fatty acids or functionalized fatty acid esters; and ▪ have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During treatment	Sacramento County	**Initial Treatment: Y** **Treatment Maintenance: Y**

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment. ▶ Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes. Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NO_X and PM.				
Archaeological, Historical, and Tribal Cultural Resources				
Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During ground-disturbing activities	Sacramento County	Sacramento County
Biological Resources				
Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway), exceptions to this	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
requirement are listed later in this measure. The no-disturbance buffers will generally be a minimum of 50 feet from listed plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid killing or damaging listed plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate buffer size will be determined based on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. For example, paint-on or wicking application of herbicides to invasive plants may be implemented within 50 feet of listed plant species without posing a risk, especially if the listed plants are dormant at the time of application. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 50 feet from a listed plant, a qualified RPF or botanist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report) with a science-based justification for the deviation. No fire ignition (and associated use of accelerants) will occur within 50 feet of listed plants. For species listed under ESA or CESA, if the project proponent cannot avoid loss by implementing no-disturbance buffers, the project proponent will implement Mitigation Measure BIO-1c. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist, in consultation with CDFW and USFWS, as appropriate depending on species status and location, that the listed plants would benefit from treatment in the occupied habitat area even though some of the listed plants may be lost during treatment activities. For a treatment to be considered beneficial to listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
included in the PSA. If it is determined that treatment activities would be beneficial to listed plants, no compensatory mitigation for loss of individuals will be required.				
Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement the following measures to avoid loss of individuals and maintain habitat function of occupied habitat: ▶ Physically avoid the area occupied by the special-status plants by establishing a no-disturbance buffer around the area occupied by species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damaging to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate size and shape of the buffer zone will be determined by a qualified RPF or botanist and will depend on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform an appropriate buffer size and shape. ▶ Treatments may be conducted within this buffer if the potentially affected special-status plant species is a geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank. ▶ Treatments will be designed to maintain the function of special-status plant habitat. For example, for a fuel break proposed in treatment areas occupied by special-status plants, if the removal of shade cover would degrade the special-status plant habitat despite the requirement to physically or seasonally avoid the special-status plant itself, habitat function would be	Initial Treatment: Y Treatment Maintenance: Y	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
diminished and the treatment would need to be modified or precluded from implementation. ▶ No fire ignition (and associated use of accelerants) will occur within the special-status plant buffer. A qualified RPF or botanist with knowledge of the special-status plant species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment would not maintain habitat function of the special-status plant habitat (i.e., the habitat would be rendered unsuitable) or because the loss of special-status plants would substantially reduce the number or restrict the range of a special-status plant species. If the project proponent determines the impact on special-status plants would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status plants or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-1c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the special-status plants would benefit from treatment in the occupied habitat area even though some of the non-listed special-status plants may be killed during treatment activities. For a treatment to be considered beneficial to non-listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.				
Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to treatment	Sacramento County	Sacramento County

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

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ reestablished habitats contain an occupied area comparable to existing occupied habitat areas in similar habitat types in the region. If preservation of existing populations or creation of new populations is part of the mitigation plan, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands and actions (e.g., the number and type of credits, location of mitigation bank or easement, restoration or enhancement actions), parties responsible for the long-term management of the land, and the legal and funding mechanisms (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. If mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, funding assurances, and success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations. If mitigation includes restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. If the loss of occupied habitat cannot be offset (e.g., if preservation of existing populations or creation of new populations through relocation efforts are not available for a certain species), and as a result treatment activities would substantially reduce the number or restrict the range of listed plant species, then the treatment will not qualify as within the scope of this Program EIR. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities) If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), or if the species is assumed present, the project proponent will avoid adverse effects to the species by implementing the following. <u>Avoid Mortality, Injury, or Disturbance of Individuals</u> The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals: 1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied habitat such that mortality, injury, or disturbance of the species will not occur, as determined by a qualified RPF or biologist using the most current and commonly accepted science and considering published agency guidance; OR 2. Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species. ▶ For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury, or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c. Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided. <u>Maintain Habitat Function</u> ▶ The project proponent will design treatment activities to maintain the habitat function, by implementing the following: ▪ While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▪ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained. A qualified RPF or biologist of the lead agency will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If the lead agency determines after consultation that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c. **Project-Specific Guidance to Implement Mitigation Measure BIO-2a** <u>California tiger salamander (applicable only south of the Cosumnes River)</u> ▶ If the presence of California tiger salamander within suitable upland habitat (defined as oak woodland and grasslands within 1.3 miles of suitable aquatic habitat south of the Cosumnes River) in the project area is assumed or if SPR BIO-10 surveys have detected California tiger salamander, Sacramento County will implement the following measures: ▪ Year round, pre-activity visual surveys will be performed daily by a qualified RPF, qualified biologist, or biological technician, prior to				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
implementation of any treatment activities (i.e., mechanical, manual, prescribed burning, and herbicide) within breeding, upland, or dispersal habitat as determined by a qualified RPF or biologist. If a California tiger salamander is found during pre-activity surveys or enters the project site during treatment activities, all work will stop within a non-disturbance buffer of 100 feet around the individual unless it is determined by the qualified RPF or biologist that a different sized buffer is appropriate to avoid disturbance, injury, or mortality. Treatment activities will cease within the buffer until the animal leaves on its own and the occurrence will be reported to the qualified RPF or biologist, and both CDFW and USFWS will be notified. ▪ Heavy equipment including mastication equipment which may collapse burrows will occur exclusively from compacted surfaces (established roads and trails). ▪ Mechanized equipment which may cause burrow collapse (tracked heavy equipment, trucks) will not be driven within 50 feet of mammal burrows in open grassland, or oak woodland within 1.3 miles of suitable breeding habitat for California tiger salamander. Manual treatment or herbicide application may occur within this buffer. ▪ Burn piles will not be placed on mammal burrows which occur in oak woodland, grassland, or savannah within suitable upland habitat for California tiger salamander. <u>Special-status Birds</u> ▶ If active special-status bird nests are detected during focused surveys, a no-disturbance buffer of at least 1 mile will be established around active nests for golden eagle, 0.5 mile for bald eagle and Swainson's hawk, 0.25 mile for white-tailed kite nests, at least 600 feet around California black rail nests, and no treatment activities will occur within this buffer until the chicks have fledged, or the nest is otherwise no longer active, as determined by a qualified RPF or biologist. ▶ If active tricolored blackbird nests are detected during focused surveys, a no-disturbance buffer of at least 300 feet for mechanical treatments, manual treatments using power equipment, and prescribed burning; and 100 feet for other treatment types would be applied (Sacramento County 2009), until the chicks have fledged, or the nest is otherwise no longer active, as determined by a qualified RPF or biologist.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Additionally, trees containing bald eagle or golden eagle nests will not be removed pursuant to the Bald and Golden Eagle Protection Act. Vernal Pool Invertebrates ▶ If protocol surveys detect the presence of conservancy fairy shrimp, vernal pool fairy shrimp, or vernal pool tadpole shrimp, no mechanical treatments would be conducted within 250 feet of the vernal pool where the species is present (Sacramento County 2009), but other treatment types that do not result in ground disturbance may occur within this buffer. Ringtail ▶ If the limited operating period for ringtail (pursuant to SPR BIO-1) is determined to be infeasible and presence of ringtails is detected during focused surveys or assumed (pursuant to SPR BIO-10), then the following avoidance and minimization measures would be required during the ringtail maternity season (April 15 through June 30): ▪ **Den Surveys**. Within seven days prior to the start of mechanical treatments, manual treatments using power equipment, and prescribed burning treatments during the ringtail maternity season, a qualified RPF or biologist will conduct a den search in the treatment area to be treated the next week. The qualified RPF or biologist will search for large trees (i.e., greater than 12 inches diameter at breast height [dbh]) with appropriate cavities (i.e., holes larger than 3 inches in diameter, cavities extending approximately 12 inches down from the cavity hole). If found, the qualified RPF or biologist will inspect the cavity using a cell phone with a flash, or other tools (e.g., borescopes) to determine whether ringtails are present. Areas (e.g., large trees) with appropriate den habitat, occupied or not, will be marked (i.e., with flagging, spray paint), for inspection during future sweeps (as described below). The qualified RPF or biologist will also search for dens in dense brush habitat and will note any sightings of fleeing adult ringtails. ▪ **Active Dens**. If active ringtail dens are discovered during a den survey or daily sweep, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and mechanical treatments, prescribed burning, and manual treatments using power equipment will not proceed within the buffer until at least the end of the ringtail maternity season (June 30). The qualified RPF or biologist will confirm that the den is unoccupied before treatment activities resume. The 0.25-mile buffer would incorporate the den and an area greater than the typical ringtail				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
home range in northern California (Wyatt, pers. comm., 2021). If an active den is discovered, CDFW will be notified of the den and buffer location. CDFW will be provided an opportunity to visit the site and provide technical information on the size and shape of the den buffer. ▪ **Daily Sweeps, Training, and Monitoring**. If active ringtail dens are not discovered, the following measures will be implemented to avoid inadvertent destruction of active dens that eluded detection during the den search as well as take of adult ringtails and kits. • **Daily Sweeps**. On the first morning of work for mechanical treatments, manual treatments using power equipment, and prescribed burning, a qualified RPF or biologist will conduct a sweep of the area to be treated that day and will search all habitat suitable for ringtails where the above treatment activities will occur that day (i.e., larger trees, heavy brush, rock piles) for active dens or adults, including the trees with cavities previously marked by the qualified RPF or biologist, unless work has occurred continuously since the initial den survey. On following days, a trained contractor will search all areas previously marked by the qualified RPF or biologist for active dens (see training requirements below under "Training and Monitoring"). If an active den is discovered during a daily sweep, the qualified RPF or biologist will be notified, all work will stop, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and the requirements described above under "Active Dens" will be followed. • **Training and Monitoring**. On the first morning of work for mechanical treatments, manual treatments using power equipment, and prescribed burning, the qualified RPF or biologist will provide biological resource training (as required under CalVTP Program EIR SPR BIO-2) for all contractors. In addition to standard biological resource training, the qualified RPF or biologist will provide additional training specific to ringtail that will include the following elements: o Description of ringtail appearance (i.e., physical features, typical size); o Description of typical ringtail behavior; o Description of denning habitat suitable for ringtail, particularly in that week's treatment area. The approximate location of large trees with cavities that were previously marked will be noted;				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
o Measures required during operation, including daily sweeps of habitat suitable for ringtail where mechanical treatments, manual treatments using power equipment, and broadcast burning will occur that day (i.e., heavy brush habitat, previously marked tree cavities), year-round take avoidance measures if determined to be applicable by the qualified biologist or RPF (e.g., operating masticators slowly in heavy brush, pausing with engine running before cutting snags, and required increased vigilance when operating in heavy brush); o Measures required if a ringtail is spotted (i.e., all work halts until a qualified RPF or biologist can conduct a den search and sweep; if the qualified RPF or biologist observes a ringtail or confirms the contractor's observation, the occurrence will be reported to CDFW; o Measures required if a ringtail den is found (i.e., 0.25-mile no-disturbance buffer and requirements described above under "Active Dens" will be followed); o Definition of and legal consequences for take of ringtail; and o Requirements for contacting CDFW, which include the following circumstances: ringtails observed during treatment activities (notify within 3 business days); active ringtail den discovered (notify within 24 hours); and take of ringtail occurs (notify within 24 hours).				
Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following. Avoid Mortality, Injury, or Disturbance of Individuals ▶ The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals: For all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around occupied sites (e.g., nests, dens, roosts, middens, burrows, nurseries). Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance; however, buffers will generally be a minimum of 100	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
feet, unless site conditions indicate a smaller buffer would be sufficient for protection or a larger buffer would be needed. Factors to be considered in determining buffer size will include, but not be limited to, the species' tolerance to disturbance; the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; baseline levels of noise and human activity; and treatment activity. Buffer size may be adjusted if the qualified RPF or biologist determines that such an adjustment would not be likely to adversely affect (i.e., cause mortality, injury, or disturbance to) the species within the nest, den, burrow, or other occupied site. If a no-disturbance buffer is reduced below 100 feet from an occupied site, a qualified RPF or biologist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). ▪ No-disturbance buffers will be marked with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). No activity will occur within the buffer areas until the qualified RPF or biologist has determined that the young have fledged or dispersed; the nest, den, or other occurrence is no longer active; or reducing the buffer would not likely result in disturbance, mortality, or injury. A qualified RPF, biologist, or biological technician will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in mortality, injury or disturbance to special-status species. ▪ For prescribed burning, the project proponent will implement the treatment outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, the qualified RPF or biologist will determine the period of time within which prescribed burning could occur that will avoid or minimize mortality, injury, or disturbance of the species. The project proponent may consult with CDFW				

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

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
status wildlife would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status wildlife or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the non-listed special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to non-listed special-status wildlife, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non-listed special-status species would benefit from the treatment. **Project-Specific Guidance to Implement Mitigation Measure BIO-2b** If other (i.e., non-listed) special-status wildlife species are observed during focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following. ▶ If a western pond turtle nest is detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 50 feet including a path from the nest to the nearest aquatic habitat would be established around the nest. ▶ If coast horned lizards, western spadefoot, or western pond turtles are detected during focused visual encounter surveys (pursuant to SPR BIO-10), biological monitoring by a qualified RPF, qualified biologist, or biological technician during treatment activities within or adjacent to sensitive habitat areas (e.g., streams, seeps, springs) will be conducted to avoid injury to or mortality of individual animals. If the qualified RPF, qualified biologist, or biological technician detects a coast horned lizard, western spadefoot, or				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
western pond turtle during treatments, treatment activities will cease until the individual has left the area or has been moved out of harm's way and to other nearby habitat suitable for the species by the qualified RPF, qualified biologist, or biological technician with the appropriate applicable permits. For western spadefoot that are found within burrows, a 50-foot buffer around the burrow will be flagged and no ground disturbing treatments will occur within that buffer while the animal is present. ▶ If active special status bird nests are detected during focused surveys, a no-disturbance buffer of at least 0.25 mile for northern harrier nests, and at least 100 feet around the nests of grasshopper sparrow and loggerhead shrike will be established, and no treatment activities will occur within this buffer until the chicks have fledged as determined by a qualified RPF or biologist. ▶ If active burrowing owl burrow is detected during the nesting season (April 1 – August 15) during SPR BIO-10 surveys, a no-disturbance nest buffer of 660 feet will be placed around active burrowing owl burrows. If the burrow is active during the overwintering season (October 16 – March 31), a no-disturbance nest buffer of 330 feet will be places around the burrow. No treatment activities would occur within this buffer until all burrowing owls have left the burrow as determined by a qualified biologist or RPF. These buffer distances are recommended per the CDFW staff report on burrowing owl mitigation (CDFW 2012). The buffer distance may be modified by a qualified RPF or biologist based on presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, and expected treatment activities. If active grasshopper sparrow or loggerhead shrike nests are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 100 feet will be established around the nest, which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. ▶ If American badger is detected during focused surveys, a no-disturbance buffer will be established around the den, the size of which will be determined by the qualified RPF or biologist, and no manual treatment, mechanical treatment, or prescribed burning will occur within this buffer. ▶ If the bat maternity roosting season cannot be avoided (pursuant to SPR BIO-1) and a pallid bat roost is detected during focused surveys (pursuant to BIO-10), a no-disturbance buffer of 250 feet will be established around the roost, which may be adjusted by a qualified biologist or RPF in consultation				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
with CDFW, and no manual treatments using power equipment or mechanical treatments will occur within this buffer until the roost is no longer being used as determined by a qualified RPF or biologist. If pallid bat roosts are identified in a treatment area where prescribed burning is planned, prescribed burning activities would be implemented outside of the bat breeding season, which is April 1 through August 31 (Caltrans 2004).				
Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities) If elderberry shrubs within the documented range of valley elderberry longhorn beetle are identified during review and surveys for SPR BIO-1, and valley elderberry longhorn beetle or likely occupied suitable elderberry habitat (e.g., within riparian, within historic riparian, containing exit holes) is confirmed to be present during protocol-level surveys following the protocol outlined in USFWS *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017) per SPR BIO-10, the following protective measures will be implemented to avoid and minimize impacts to valley elderberry longhorn beetle: ▶ If elderberry shrubs are 165 feet or more from the treatment area, and treatment activities would not encroach within this distance, direct or indirect impacts are not expected and further mitigation is not required. ▶ If elderberry shrubs are located within 165 feet of the treatment area, the following measures will be implemented: ▪ A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant will be fenced or flagged and maintained to avoid direct impacts (e.g., damage to root system) that could damage or kill the plant, with the exception of the following activities: • Manual trimming of elderberry shrubs will only occur between November and February and will avoid removal of any branches or stems that are greater than or equal to 1 inch in diameter to avoid and minimize adverse effects on valley elderberry longhorn beetle. • Manual or mechanical vegetation treatment within the drip-line of any elderberry shrub will be limited to the season when adults are not active (August - February), will be limited to methods that do not cause ground disturbance, and will avoid damaging the elderberry. ▪ A qualified RPF, biologist, or biological technician familiar with valley elderberry longhorn beetle and its life history will monitor the work area to verify the avoidance and minimization measures are implemented. The	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to valley elderberry longhorn beetle. If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of VELB or degradation of occupied habitat such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c. **Project-Specific Guidance to Implement Mitigation Measure BIO-2d** ▶ A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, or if after implementation of the treatment, habitat function will remain for the species. Because the species is listed under ESA, the qualified RPF or biologist will consult with USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of the species or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.				
Mitigation Measure BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities) If federally listed butterflies are identified as occurring or having potential to occur during review and surveys for SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, then the following measures will be implemented: ▶ Treatment areas within the range of these species will be surveyed for the host plant for each species (Table 3.6-34). ▶ Host plants for federally listed butterflies within the occupied habitat will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants. ▶ Because prescribed herbivory could result in the indiscriminate removal of the host plants for federally listed butterflies, this treatment type will not be used within occupied habitat of any federally listed butterfly species, unless it is known that the host plant is unpalatable to the herbivore. ▶ Treatment areas that are not occupied but are within the range of the federally listed butterfly will be divided into as many treatment units as feasible such that the entirety of the habitat is not treated within the same year.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Treatments will be conducted in a patchy pattern to the extent feasible in areas that are not occupied but are within the range of the federally listed butterfly, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained. If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of federally listed butterflies or degradation of occupied habitat (host plants) such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c. **CESA and ESA Listed Species.** A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed butterflies or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.				

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

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

Butterfly Species	Host Plants
Mission blue butterfly	lupine (*Lupinus* spp.)
Myrtle's silverspot butterfly	blue violet
Oregon silverspot butterfly	blue violet
Palos Verdes blue butterfly	Santa Barbara milkvetch (*Astragalus trichopodus*), common deerweed (*Acmispon glaber*)
San Bruno elfin butterfly	broadleaf stonecrop (*Sedum spathulifolium*), manzanita (*Arctostaphylos* spp.), huckleberry (*Vaccinuum* spp.)
Smith's blue butterfly	seacliff buckwheat, seaside buckwheat (*Eriogonum latifolium*)
Quino checkerspot butterfly	dwarf plantain, purple owl's clover

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA, because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status butterflies or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
invasive species, or otherwise reduced competition for resources). If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required. **Project-Specific Guidance to Implement Mitigation Measure BIO-2e** ▶ If host plants for monarch butterflies are detected, and monarch eggs, larvae, and pupae are detected during focus surveys pursuant to SPR BIO-10 or assumed to be present, host plants will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants if feasible (unless, pursuant to SPR BIO-1, activities occur outside of the period March 15 through October 31, when impacts to eggs, larvae, and pupae can be avoided). ▶ If monarch butterflies are detected during focused surveys pursuant to SPR BIO-10, or presence is assumed, treatments will be conducted in a patchy pattern to the extent feasible in grasslands and oak woodlands, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat and floral resources are retained.				
Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities) If special-status bumble bees are identified as occurring during review and surveys under SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, or if suitable habitat for special-status bumble bees is identified during review and surveys under SPR BIO-1 (e.g., wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species), then the project proponent will implement the following measures, as feasible: ▶ Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season. ▶ Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area). ▶ Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September). **CESA and ESA Listed Species.** A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed bumble bees (in the event the Candidate listing is confirmed) or degradation of occupied (or assumed to be occupied) habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c. **Other Special-status Species.** A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status bumble bees would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status bumble bees or degradation of occupied (or assumed to be occupied) habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee species would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to special-status bumble bee species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.				
Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3: ▶ Reference the *Manual of California Vegetation*, Appendix 2, Table A2, *Fire Characteristics* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/) or other best available information to determine the natural fire regime of the specific sensitive natural community type (i.e., alliance) present. The condition class and fire return interval departure of the vegetation alliances present will also be determined. ▶ Design treatments in sensitive natural communities and oak woodlands to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function of the affected sensitive natural community. Treatments will be designed to replicate the fire regime attributes for the affected sensitive natural community or oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fireline intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/). Treatments will not be implemented in sensitive natural communities that are within their natural fire return interval (i.e., time since last burn is less than the average time required for that vegetation type to recover from fire) or within Condition Class 1.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ To the extent feasible, no fuel breaks will be created in sensitive natural communities with rarity ranks of S1 (critically imperiled) and S2 (imperiled). ▶ To the extent feasible, fuel breaks will not remove more than 20 percent of the native vegetation relative cover from a stand of sensitive natural community vegetation in sensitive natural communities with a rarity rank of S3 (vulnerable) or in oak woodlands. In forest and woodland sensitive natural communities with a rarity rank of S3, and in oak woodlands, only shaded fuel breaks will be installed, and they will not be installed in more than 20 percent of the stand of sensitive natural community or oak woodland vegetation (i.e., if the sensitive natural community covers 100 acres, no more than 20 acres will be converted to create the fuel break). ▶ Use prescribed burning as the primary treatment activity in sensitive natural communities that are fire dependent (e.g., closed-cone forest and woodland alliances, chaparral alliances characterized by fire-stimulated, obligate seeders), to the extent feasible and appropriate based on the fire regime attributes as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/). ▶ Time prescribed herbivory to occur when non-target vegetation is not susceptible to damage (e.g. non-target vegetation is dormant or has completed its reproductive cycle for the year). For example, use herbivores to control invasive plants growing in sensitive habitats or sensitive natural communities when sensitive vegetation is dormant but invasive plants are growing. Timing of herbivory to avoid non-target vegetation will be determined by a qualified botanist, RPF, or biologist based on the specific vegetation alliance being treated, the life forms and life conditions of its characteristic plant species, and the sensitivity of the non-target vegetation to the effects of herbivory. The feasibility of implementing the avoidance measures will be determined by the project proponent based on whether implementation of this mitigation measure will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. If the avoidance measures are determined by the project proponent to be infeasible, the project proponent will document the reasons implementation of the avoidance strategies are infeasible in the PSA. After completion of the PSA and prior to or during treatment				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). A qualified RPF or botanist with knowledge of the affected sensitive natural community will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat functions of the sensitive natural community or oak woodland. If the project proponent determines the impact on sensitive natural communities or oak woodlands would be less than significant, no further mitigation will be required. If the project proponent determines that the loss or degradation of sensitive natural communities or oak woodlands would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-3b will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. For a treatment to be considered beneficial to a sensitive natural community or oak woodland, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the community (or similar community) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.				
Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement the following actions: ▶ Compensate for unavoidable losses of sensitive natural community and oak woodland acreage and function by:	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▪ restoring sensitive natural community or oak woodland functions and acreage within the treatment area; ▪ restoring degraded sensitive natural communities or oak woodlands outside of the treatment area at a sufficient ratio to offset the loss of acreage and habitat function; or ▪ preserving existing sensitive natural communities or oak woodlands of equal or better value to the sensitive natural community lost through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function. ▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan.				

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

Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
If, after implementation of SPR BIO-4, impacts to riparian habitat remain significant under CEQA, the project proponent will implement the following:
▶ Compensate for unavoidable losses of riparian habitat acreage and function by:
  ▪ restoring riparian habitat functions and acreage within the treatment area;
  ▪ restoring degraded riparian habitat outside of the treatment area;
  ▪ purchasing riparian habitat credits at a CDFW-approved mitigation bank; or
  ▪ preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value.
▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on riparian habitat that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and:
1. For preserving existing riparian habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity.
2. For restoring or enhancing riparian habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to
	Initial Treatment: Y
	Treatment Maintenance: Y
		Prior to and during treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above. **Project-Specific Guidance to Implement Mitigation Measure BIO-3c** Applicable Only on Deer Creek Hills Preserve Pursuant to Mitigation Measures BR-3 in the Deer Creek Hills Master Plan Final Environmental Impact Report (County of Sacramento 2009): ▶ Riparian compensation will either occur through restoration or creation of similar habitat values within the Deer Creek Hills Preserve. No compensation could occur off-site.				
Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands Impacts to wetlands will be avoided using the following measures: ▶ The qualified RPF or biologist will delineate the boundaries of federally protected wetlands according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and the appropriate regional supplement for the ecoregion in which the treatment is being implemented. ▶ The qualified RPF or biologist will delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (California Water Boards 2019 or current procedures). ▶ A qualified RPF or biologist will establish a buffer around wetlands and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The buffer will be a minimum width of 25 feet but may be larger if deemed necessary. The appropriate size and shape of the buffer zone will be determined in coordination with the qualified RPF or biologist and will depend on the type of wetland present (e.g., seasonal wetland, wet meadow, freshwater marsh, vernal pool), the timing of treatment (e.g., wet or dry time of year), whether any special-status species may occupy the wetland and the species' vulnerability to the treatment activities, environmental conditions and terrain, and the treatment activity being implemented.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during treatment	Sacramento County	Sacramento County

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

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
after treatment activities will be required. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to special-status species.				
Greenhouse Gas Emissions				
Mitigation Measure GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns When planning for and conducting a prescribed burn, project proponents implementing a prescribed burn will incorporate feasible methods for reducing GHG emissions, including the following, which are identified in the *National Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire* (NWCG 2018): ▶ reduce the total area burned by isolating and leaving large fuels (e.g., large logs, snags) unburned; ▶ reduce the total area burned through mosaic burning; ▶ burn when fuels have a higher fuel moisture content; ▶ reduce fuel loading by removing fuels before ignition. Methods to remove fuels include mechanical treatments, manual treatments, prescribed herbivory, and biomass utilization; and ▶ schedule burns before new fuels appear. As the science evolves, other feasible methods or technologies to sequester carbon could be incorporated, such as conservation burning, a technique for burning woody material that reduces the production of smoke particulates and carbon released into the atmosphere and generates more biochar. Biochar is produced from the material left over after the burn and spread with compost to increase soil organic matter and soil carbon sequestration. Technologies to reduce greenhouse gas emissions may also include portable units that perform gasification to produce electricity or pyrolysis that produces biooil that can be used as liquid fuel and/or syngas that can be used to generate electricity. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.	**Initial Treatment: Y** **Treatment Maintenance: Y**	Prior to and during prescribed burning treatment	Sacramento County	Sacramento County

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Hazardous Materials, Public Health and Safety				
Mitigation Measure HAZ-3: Identify and Avoid Known Hazardous Waste Sites Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials. If it is determined that hazardous materials sites could be located within the boundary of a treatment site, the project proponent will conduct a DTSC EnviroStor web search (https://www.envirostor.dtsc.ca.gov/public/) and consult DTSC's Cortese List to identify any known contamination sites within the project site. If a proposed mechanical treatment or prescribed burn is located on a site included on the DTSC Cortese List as containing potential soil contamination that has not been cleaned up and deemed closed by DTSC, the area will be marked and no prescribed burning or soil disturbing treatment activities will occur within 100 feet of the site boundaries. If it is determined through coordination with landowners or after review of the Cortese List that no potential or known contamination is located on a project site, the project may proceed as planned.	**Initial Treatment: Y** **Treatment Maintenance: Y**	During PSA preparation **Database searches are complete; see PSA/Addendum for results**	Sacramento County	Sacramento County

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Attachment B

Biological Resources

Special-Status Plant Species Known to Occur in the Vicinity of the Treatment Areas and Their Potential for Occurrence in the Treatment Areas

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Jepson's onion *Allium jepsonii*	–	–	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. On serpentine soils in Sierra foothills (i.e., ultramafic affinity = 5.4 [broad endemic]), volcanic soil on Table Mountain. On slopes and flats; usually in an open area. 1,160–3,710 feet in elevation. Blooms April–August. Geophyte.	*Not expected to occur*: Project area does not contain serpentine soil habitat potentially suitable for this species.
Ione manzanita *Arctostaphylos myrtifolia*	FT	–	1B.2	Ione formation. Chaparral, cismontane woodland. On Ione clay with chaparral associates. Often comprises 50–80 percent cover. 290–1,840 feet in elevation. Blooms November–March. Perennial.	*Not expected to occur*: The project area is outside the documented range of this species, which is limited to the Ione formation in Amador and Calaveras counties.
Stebbins' morning-glory *Calystegia stebbinsii*	FE	SE	1B.1	Chaparral, cismontane woodland. Sometimes found on gabbro or serpentine; open areas. 980–2,380 feet in elevation. Blooms April–July. Geophyte.	*Not expected to occur*: The project area is outside the documented range of this species, which is limited to the foothills of El Dorado, Nevada, and Placer counties.
Chaparral sedge *Carex xerophila*	–	–	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Can be found on serpentinite, gabbroic (i.e., ultramafic affinity = 1.7 [weak indicator]). 900–2,530 feet in elevation. Blooms March–June. Perennial.	*Not expected to occur*: The project area is lower than the elevation range of this species.
Pine Hill ceanothus *Ceanothus roderickii*	FE	SR	1B.1	Chaparral, cismontane woodland. Gabbroic or serpentine soils (i.e., ultramafic affinity = 1.7 [weak indicator]); often in "historically disturbed" areas with an ensemble of other rare plants. 850–2,070 feet in elevation. Blooms April–June. Perennial.	*Not expected to occur*: Project area is out of documented range of the species. Documented occurrences of *Ceanothus roderickii* are restricted to an area north of the project area in El Dorado County, generally between I-80 and US 50, near or in the Pine Hill Preserve (USFWS 2019; Calflora 2023; CCH2 2023; CNDDB 2023a; CNPS 2023a).
Red Hills soaproot *Chlorogalum grandiflorum*	–	–	1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs frequently on serpentine or gabbro (ultramafic affinity = 1 [weak indicator –indifferent]), but also on non-ultramafic substrates; often on "historically disturbed" sites. 800–4,070 feet in elevation. Blooms May–June. Geophyte.	*Not expected to occur*: The project area is lower than the elevation range of this species.
Dwarf downingia *Downingia pusilla*	–	–	2B.2	Valley and foothill grassland (mesic), vernal pools, roadside ditches. In several types of vernal pools. 5–1,610 feet in elevation. Blooms March–May. Annual.	*May occur*: Mesic grassland and vernal pool habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Ione buckwheat *Eriogonum apricum* var. *apricum*	FE	SE	1B.1	In gravelly openings on Ione formation soil. 280–490 feet in elevation. Blooms July–October. Perennial.	*Not expected to occur*: The project area is outside the documented range of this species, which is limited to the Ione formation in Amador County.
Irish Hill buckwheat *Eriogonum apricum* var. *prostratum*	FE	SE	1B.1	Gravelly openings on Ione formation soils. 290–330 feet in elevation. Blooms June–July. Perennial.	*Not expected to occur*: The project area is outside the documented range of this species, which is limited to the Ione formation in Amador and Calaveras counties.
Tuolumne button-celery *Eryngium pinnatisectum*	–	–	1B.2	Vernal pools, swales, mesic sites. 230–3,000 feet in elevation. Blooms May–August. Annual/Perennial.	*May occur*: Vernal pool, other wetland, and mesic habitat potentially suitable for this species are present in the project area.
Stanislaus monkeyflower *Erythranthe marmorata*	–	–	1B.1	Cismontane woodland, lower montane coniferous forest. Seeps, streambanks. 330–2,960 feet in elevation. Blooms March–May. Annual.	*Not expected to occur*: The project area is outside the documented range of this species, which is limited to the central Sierra Nevada foothills.
Pine Hill flannelbush *Fremontodendron decumbens*	FE	SR	1B.2	Chaparral, cismontane woodland. Rocky ridges; sometimes on gabbro or serpentine (ultramafic affinity = 2 [weak indicator]); often among rocks and boulders. 1,390–2,510 feet in elevation. Blooms April–July. Perennial.	*Not expected to occur*: Project area is out of elevational range for this species. Additionally, documented occurrences of *Fremontodendron decumbens* are restricted to the northern Sierra Nevada foothills beginning north of the project area in El Dorado County in and around the Pine Hill Preserve north into the foothills of Yuba and Nevada Counties (Calflora 2023; CCH2 2023; CNDDB 2023a; CNPS 2023a).
El Dorado bedstraw *Galium californicum* ssp. *sierrae*	FE	SR	1B.2	Ultramafic. Cismontane woodland, chaparral, lower montane coniferous forest. In pine-oak woodland or chaparral. Restricted to gabbroic or serpentine soils. 420–1,920 feet in elevation. Blooms May–June. Perennial.	*Not expected to occur*: Documented occurrences of *Galium californicum* ssp. *sierrae* are restricted to an area north of the project area in El Dorado County, generally between I-80 and US 50 (Calflora 2023; CCH2 2023; CNDDB 2023a; CNPS 2023a).
Boggs Lake hedge-hyssop *Gratiola heterosepala*	–	SE	1B.2	Shallow water, margins of vernal pools. 30–7,790 feet in elevation. Blooms April–August. Annual.	*May occur*: Vernal pool and pond habitat potentially suitable for this species is present in the project area.
Parry's horkelia *Horkelia parryi*	–	–	1B.2	Openings in chaparral or woodland. Ione formation and other soils. 280–3,660 feet in elevation. Blooms April–September. Perennial.	*Not expected to occur*: The project area is outside the documented range of this species, which is limited to the northern and central Sierra Nevada foothills.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	–	–	1B.2	Vernal pool margins; grassland swales, gopher mounds. 100–330 feet in elevation. Blooms March–May. Annual.	*May occur*: Vernal pool and other wetland habitat potentially suitable for this species is present in the project area.
Legenere *Legenere limosa*	–	–	1B.1	Wet areas, vernal pools, ponds. 5–2,890 feet in elevation. Blooms April–June. Annual.	*May occur*: Vernal pool and other wetland habitat potentially suitable for this species is present in the project area.
Pincushion navarretia *Navarretia myersii* ssp. *myersii*	–	–	1B.1	Vernal pools. 150–330 feet in elevation. Blooms April–May. Annual.	*May occur*: Vernal pool habitat potentially suitable for this species is present in the project area.
Slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools. Often in gravelly substrate. 80–5,760 feet in elevation. Blooms May–September (October). Annual.	*May occur*: Vernal pool habitat potentially suitable for this species is present in the project area.
Sacramento Orcutt grass *Orcuttia viscida*	FE	SE	1B.1	Vernal pools. 50–280 feet in elevation. Blooms April–July (September). Annual.	*May occur*: Vernal pool habitat potentially suitable for this species is present in the project area.
Layne's ragwort *Packera layneae*	FT	SR	1B.2	Chaparral, cismontane woodland. Ultramafic soil (serpentine or gabbro; ultramafic affinity = 4.9 [broad endemic]); occasionally along streams. 650–3,560 feet in elevation. Blooms April–August. Perennial.	*Not expected to occur*: Project area does not contain ultramafic habitat potentially suitable for this species. Additionally, documented occurrences of *Packera layneae* are mainly from the Pine Hill Preserve in El Dorado County with a few isolated occurrences north and one isolated population to the south in Tuolumne County (USFWS 2019; Calflora 2023; CCH2 2023; CNDDB 2023a; CNPS 2023a).
Sanford's arrowhead *Sagittaria sanfordii*	–	–	1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,140 feet in elevation. Blooms May–October. Geophyte.	***Known to occur.*** *Sagittaria sanfordii* has been documented on the Deer Creek Hills Preserve (Sacramento County 2009). There is a documented occurrence in the northern portion of the project area on the Deer Creek Hills Preserve in an old stock pond (CNDDB 2023a). Additionally, there is another documented occurrence towards the middle of the project area on the Deer Creek Hills Preserve (Calflora 2023). Furthermore, pond and wetland habitat potentially suitable for this species is present in other parts of the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
El Dorado County mule ears *Wyethia reticulata*	–	–	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Stony red clay and gabbroic soils; often in openings in gabbro chaparral. 600–2,070 feet in elevation. Blooms April–August. Perennial.	*Not expected to occur*: Project area is out of documented range of the species. Documented occurrences of *Wyethia reticulata* are restricted to an area north of the project area in El Dorado County, generally between I-80 and US 50 (Calflora 2023; CCH2 2023; CNDDB 2023a; CNPS 2023a).

Notes: CRPR = California Rare Plant Rank; CEQA = California Environmental Quality Act; ESA = Endangered Species Act; NPPA = Native Plant Protection Act

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected by ESA)

FT Federally Listed as Threatened (legally protected by ESA)

State:

SE State Listed as Endangered (legally protected by CESA)

ST State Listed as Threatened (legally protected by CESA)

SR State Listed as Rare (legally protected by NPPA)

California Rare Plant Ranks (CRPR):

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

CRPR Threat Ranks:

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

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

2 Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.

Known to occur: The species has been observed within the treatment areas.

Sources: Calflora 2023; CCH2 2023; CNDDB 2023a; CNPS 2023a; Sacramento County 2009.

Special-Status Wildlife Species Known to Occur in the Vicinity of the Treatment Areas and Their Potential for Occurrence in the Treatment Areas

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Amphibians and Reptiles				
California red-legged frog *Rana draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	*Not expected to occur*: Portions of the project area are within the westernmost portions of the range of the species (CNDDB 2023b); however, the nearest documented occurrence is along the Cosumnes River approximately 12 miles upstream of the project area from the 1940s (CNDDB 2023a) and historical records have also been recorded near Placerville (Sacramento County 2009).The Cosumnes River and stock ponds within and near the project area may provide suitable aquatic habitat for the species. There are also lakes adjacent to the project area; although, these waters contain fisheries, which would prey on California red-legged frogs.
California tiger salamander – central California DPS *Ambystoma californiense* pop. 1	FT	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	*May occur:* Stock ponds and other seasonal pools are located within the project area. While the project area is within the historic range of the species (CNDDB 2023c), the majority of the project area is north of the Cosumnes River and is outside of the species' current range (County of Sacramento et al. 2018). The portion of the project area that is south of the Cosumnes River may provide suitable upland habitat for the species.
Coast horned lizard *Phrynosoma blainvillii*	—	SSC	Found a wide variety of habitats, including woodlands and grasslands. Species is most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects are required.	*May occur:* The woodland and grassland habitat on sandy soils, including along intermittent streams, that is required for this species are present within portions of the project area.
Foothill yellow-legged frog (South Sierra DPS) *Rana boylii* pop. 5	FP	SE	Sierra Nevada from South Fork American River subbasin in El Dorado County south to Tehachapi Mountains in Kern County. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	*Not expected to occur:* The seasonal streams that occur within the project area are not habitat for foothill yellow-legged frog because they do not hold water for long enough during the year. The Cosumnes River provides potentially suitable habitat for the species, and the project would occur within the riparian habitat along the river. However, the only documented occurrences within the lower Cosumnes River watershed are historic (1940s) and approximately 12 miles upstream of the project area (CNDDB 2023a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Giant gartersnake *Thamnophis gigas*	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	*Not expected to occur:* While the project is within the historic range of the species (CNDDB 2023d), the project is at the extreme eastern end of its range, and only a single historical occurrence (1980s) has been documented in this portion of eastern Sacramento County (CNDDB 2023a).
Western pond turtle *Emys marmorata*	—	SSC	Ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	***Known to occur:*** The stock ponds and lakes within and near the project area are potential aquatic habitat for the species, and the species is known to occur within the project area. Portions of the project area are within 1,500 feet of these aquatic habitats and may provide nesting habitat for the species.
Western spadefoot *Spea hammondii*	—	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	***May occur:*** Vernal pools for breeding are present within and near portions of the project area. The woodland and grassland habitat within the project area provides upland habitat for the species.
Birds				
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	***Known to occur:*** Nesting bald eagles were observed in a pine overlooking Lake Clementia during SPR BIO-1 surveys.
Bank swallow *Riparia riparia*	—	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/ sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	*Not expected to occur:* While the species has been documented to occur along the Cosumnes River (CNDDB 2023a), the portion of the river directly adjacent to the project area does not contain the vertical banks with sandy soils needed for nesting by this species.
Burrowing owl *Athene cunicularia*	—	SSC	Requires open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	***Known to occur:*** The species is known to occur within the Deer Creek Hills Preserve (Sacramento County 2009), and habitat for the species is present within other portions of the project area.
California black rail *Laterallus jamaicensis coturniculus*	—	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	***May occur:*** The species is known to occur in small freshwater marshes within the Sierra foothills (Richmond et al. 2008), and the nearest recent documented occurrence is within Southern Eldorado County approximately 7 miles from the project area (CNDDB 2023a). The marsh habitat bordering ponds and impoundments within and directly adjacent to the project area may provide nesting habitat for this species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Golden eagle *Aquila chrysaetos*	—	FP	Found in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of their range; also, large trees in open areas.	***May occur:*** Large trees within the project area may provide suitable nesting habitat for the species, and adjacent grasslands may provide foraging habitat.
Grasshopper sparrow *Ammodramus savannarum*	—	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	***May occur:*** The species has been documented to occur within Deer Creek Hills Preserve, but outside of the project area (CNDDB 2023). The grasslands within the project area provide habitat for the species.
Loggerhead shrike *Lanius ludovicianus*		SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	***Known to occur:*** The species has been documented to occur within the Deer Creek Hills Preserve and may nest within other portions of the project area (Sacramento County 2009).
Northern harrier *Circus cyaneus*		SSC	Nests and forages in marshes and grasslands. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	***Known to occur:*** Documented to forage within the project area (Sacramento County 2009); although marsh habitat for nesting is limited within the project area, marsh habitat is present outside of the Deer Creek Hills Preserve.
Swainson's hawk *Buteo swainsoni*	—	ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	***Known to occur:*** The species has been documented to occur within the northern portions of the project area and adjacent to the southern portion of the project area along the Cosumnes River (CNDDB 2023a). Large trees within the project area provide suitable nesting habitat for the species, and adjacent grasslands provide foraging habitat.
Tricolored blackbird *Agelaius tricolor*	—	ST SSC	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	***May occur:*** While freshwater marsh habitat is limited in the project area, blackberry thickets in riparian habitat may provide suitable nesting habitat for the species.
White-tailed kite *Elanus leucurus*	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	***Known to occur:*** The species has been documented to occur within the Deer Creek Hills Preserve and may nest within other portions of the project area (Sacramento County 2009).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Fish				
Chinook salmon - Central Valley fall / late fall-run Evolutionary Significant Unit *Oncorhynchus tshawytscha* pop. 13	—	SSC	Sacramento/San Joaquin flowing waters. Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	***Known to occur:*** The species is documented to occur within the Cosumnes River and Deer Creek. While the project area does not include the river itself, the project area includes portions of the riparian corridor.
Steelhead - Central Valley Distinct Population Segment *Oncorhynchus mykiss* irideus pop. 11	FT	—	Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	***Known to occur:*** The species is documented to occur within the Cosumnes River. While the project area does not include the river itself, the project area includes portions of the riparian corridor.
Invertebrates				
Crotch bumble bee *Bombus crotchii*	—	SC	Found primarily in California: mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	***May occur:*** The project area is within the historic range of the species (CDFW 2023), and there has been a recent detection east of Rancho Cordova approximately 7 miles from the project area (CNDDB 2023a).
Monarch *Danaus plexippus plexippus*	FP	—	Winter roost sites extend along the coast from northern Mendocino County to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Along migration routes and within summer ranges, monarch butterflies require two suites of plants: (1) host plants for monarch caterpillars, which are primarily milkweeds (*Asclepias* spp.) within the family Apocynaceae upon which adult monarchs lay eggs; and (2) nectar-producing flowering plants of many other species that provide food for adult butterflies. Having both host and nectar plants available from early spring to late fall and along migration corridors is critical to the survival of migrating pollinators.	***May occur:*** The project area is outside of the overwintering range of monarch butterfly. However, the project area contains grassland and open woodland habitats with floral resources and contains milkweed plants (Western Monarch and Milkweed Mapper 2023); thus, monarch may forage or breed in the project area.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	—	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	***May occur:*** The project area is within the elevational range of the species, and elderberry shrubs were observed within the project area along Crevis Creek and the Cosumnes River during SPR BIO-1 surveys.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Conservancy Fairy Shrimp *Branchinecta conservatio*	FE		Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	***May occur:*** Vernal pools have been documented to occur within the project area on Deer Creek Hills Preserve (Sacramento County 2009), and within the community of Rancho Murieta. These pools and others within the project area may contain this species.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	—	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	***May occur:*** Vernal pools have been documented to occur within the project area on Deer Creek Hills Preserve (Sacramento County 2009), and the species has been documented to occur within the community of Rancho Murieta (CNDDB 2023a). Vernal pools within the project area may contain this species.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	—	Valley and foothill grassland, vernal pool, wetland. Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	***May occur:*** Vernal pools have been documented to occur within the project area on Deer Creek Hills Preserve (Sacramento County 2009), and within the community of Rancho Murieta. These pools and others within the project area may contain this species.
Mammals				
American badger *Taxidea taxus*	—	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	***May occur:*** The oak woodland and grasslands in portions of the project area provide habitat for this species. American badger is not anticipated to occur in the portions of the project area that directly border the community of Rancho Murietta, due to the level of human disturbance within those areas.
Fisher - West Coast DPS *Pekania pennanti*	—	SSC	North coast coniferous forest, old growth, riparian forest. Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	*Not expected to occur:* The majority of the project area consists of small to medium diameter oaks and other deciduous trees. The project area is below the elevational range of the species (CNDDB 2023d).
Pallid bat *Antrozous pallidus*	—	SSC	Most common in open, dry habitats with rocky areas for roosting. Tree roosting has also been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	***May occur:*** Large snags and live trees within the project area may provide maternity roosting habitat for this species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Ringtail *Bassariscus astutus*	—	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	***May occur.*** The project area contains suitable oak woodland and riparian habitat for this species. There are no documented occurrences in the project region, although the species in not tracked in the CNDDB.

Notes: CNDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected)
FT Federally Listed as Threatened (legally protected)
FD Federally Delisted
FP Proposed for Listing under the federal Endangered Species Act

State:

FP Fully Protected (legally protected)
SSC Species of Special Concern (no formal protection other than CEQA consideration)
SE State Listed as Endangered (legally protected)
ST State Listed as Threatened (legally protected)
SC State Candidate for listing (legally protected)

2 Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.
Known to occur: Species has been documented within the treatment site.

Sources: CDFW 2023; CNDDB 2023a, CNDDB 2023b, CNDDB 2023c, CNDDB 2023d, County of Sacramento et al. 2018; Sacramento County 2009; Richmond et al. 2008; USFWS 2023; Western Monarch and Milkweed Mapper 2023.

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