

Bouverie Cal VTP # 2024-06
Project Specific Analysis and Addendum to the CalVTP Program EIR

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Introduction

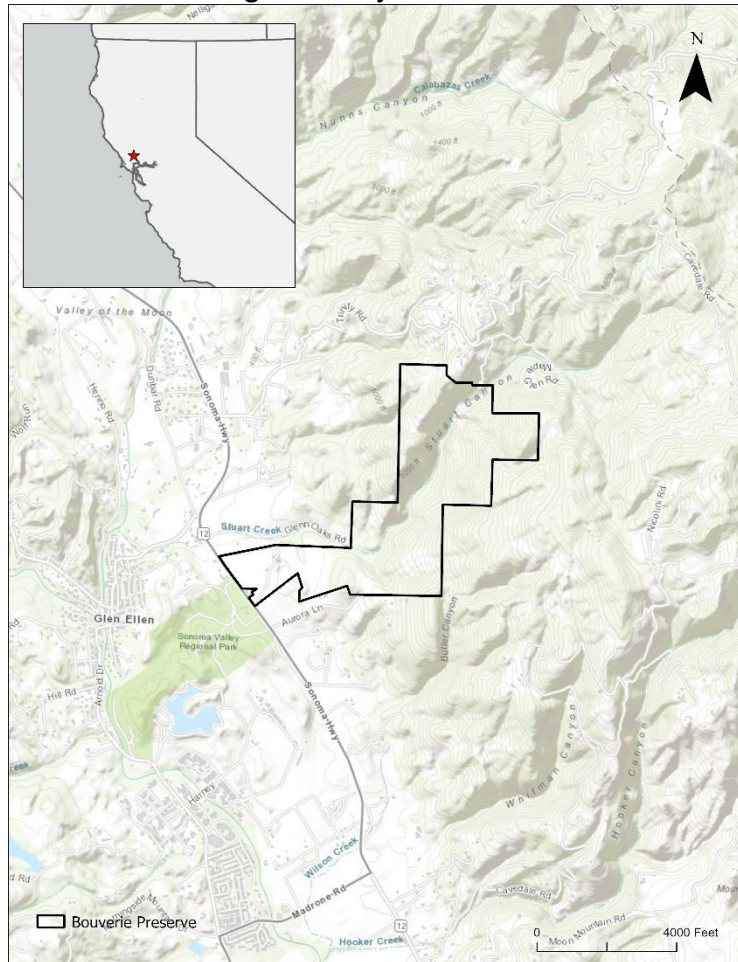
Project Overview and Document Purpose

Under the direction of the California Board of Forestry and Fire Protection, the Program Environmental Impact Report (PEIR) was prepared to evaluate the environmental impacts of the California Vegetation Treatment Program (CalVTP). The CalVTP includes various treatment activities designed to reduce wildfire hazards and manage for ecological benefit within State Responsibility Areas (SRA). A Project Specific Analysis (PSA) is required for individual projects. The purpose of the PSA is to: a) evaluate the conditions of the proposed site and proposed treatments to ensure they are within the scope of the PEIR, and b) ensure that all applicable Standard Project Requirements (SPRs) and mitigation measures are incorporated into the project.

Proposed Project

Audubon Canyon Ranch (ACR) proposes to implement vegetation treatment activities across the entire 527 acres of the Bouverie Wildflower Preserve (hereafter referred to as the “Project”). The Bouverie Wildflower Preserve (Preserve) of diverse ecosystems within the Stewart Creek Watershed, located in the Sonoma Valley approximately 1 mile east of Glen Ellen and 6 miles north of the town of Sonoma along Hwy 12 (Figure 1).

Figure 1: Project Location



The Preserve was heavily impacted by the 2017 Nuns fire which burned the entire 527 acres. The ecological impacts of the Nuns fire varied from high impacts (low resiliency ecosystems) to low impacts (high resiliency ecosystems). Ecosystem resiliency is defined by an ecosystem's ability to maintain its species composition and structure after a disturbance event. More specifically here, the ability for the ecosystem to maintain its character after a wildland fire. Ecosystems within the Project area are considered to be in the maintenance phase once fuel and vegetation structure within an ecosystem are resilient to wildland fire under a broad span of fire conditions, barring the most extreme fire events. The maintenance phase condition assumes that vegetation and fuels management can be done on a cycle commensurate with expected fire return intervals for the ecosystem in question.

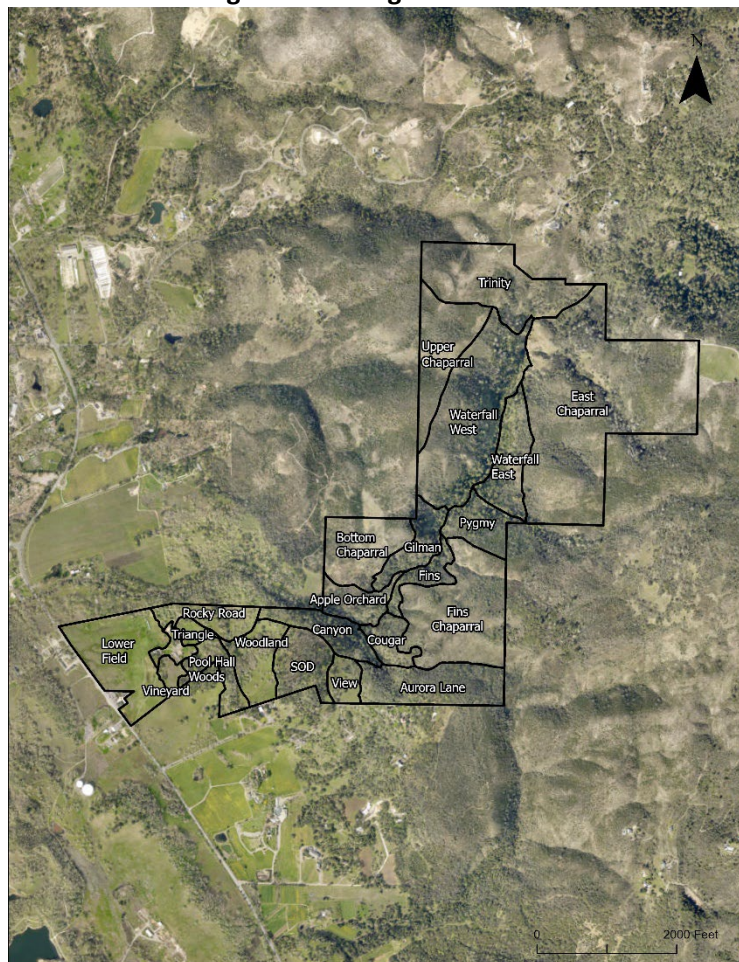
Areas that were highly impacted by the Nuns fire were mostly found in woodland and conifer forest types. Deleterious impacts were caused, at least in part, by densely stocked trees and/or an excess of accumulated surface fuels due to decades of fire suppression. In some cases, there was high tree mortality (or top kill) resulting in a sharp increase in dead heavy fuels both standing and surface as well as an abundance of resprouting trees post-fire. Forests in this condition require significant fuel reduction to get to an ecological and physical structure that is resilient to future wildland fires often requiring multiple entries of manual or mechanical treatment and burning to reach the maintenance phase. By contrast, savanna, grassland, and some woodland ecosystem types proved more resilient to the Nuns

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fire, with low mortality of dominant vegetation and ecosystems recovering to their former state. These systems still require management to maintain their integrity and biodiversity, however, they are broadly considered to be in the maintenance phase. Fuels management and post-fire recovery projects have been occurring on the Preserve since 2017. The proposed treatments and treatment types are a continuation of that work, are covered under the PEIR, and include some first-entry treatments and maintenance treatments.

The Preserve is organized into 23 management units, all of which are included in the Project (Figure 2). Management units are delineated based on landscape features and ecosystem types. Ecosystem types found on the Preserve include chaparral, conifer forest, grassland, savanna, riparian, vernal wetlands, pygmy forest, and woodland (Table 1). Ecosystem types were derived from vegetation types mapped by the Sonoma County Vegetation Map as well as their associated vegetation management regimes. Some notable changes made to the Sonoma Vegetation Layer to create management ecosystem types include the addition of a savanna ecosystem type, which was previously mapped as grassland and contains an oak canopy cover of less than 25% but greater than 5%, and adding pygmy forest, which was mapped in the field.

Figure 2: Management Units



The proposed treatment types for the Project are shaded fuel break and ecological restoration. The goals of the Project include improving resilience to wildfire, improving wildlife habitat, increasing native

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flora diversity, reducing the potential of high-intensity wildfire, and returning ecosystems to their natural fire regimes. All ecosystem types found on the Preserve are included in the Project, except chaparral. Treatment activities include prescribed burning, manual treatments, mechanical treatments, prescribed herbivory, and herbicide.

Table 1: Project Area Management Units & Ecosystem Types

Management Unit	Acres	Ecosystem Types
Apple Orchard	10.88	Woodland* , Conifer Forest, Riparian
Aurora Lane	26.74	Woodland
Bottom Chaparral	22.79	Chaparral , Grassland, Woodland
Canyon	13.3	Conifer Forest, Woodland , Riparian, Savanna
Cougar	8.29	Woodland
East Chaparral	121.57	Chaparral, Woodland , Conifer Forest, Grassland
Facilities	3.9	NA
Fins	7.5	Woodland, Conifer Forest , Chaparral, Riparian
Fins Chaparral	47.8	Chaparral , Woodland
Gilman	12.17	Woodland , Chaparral, Conifer, Riparian
Lower Field	32.96	Grassland , Vernal Wetland, Woodland
Pool Hall Woods	10.21	Woodland
Pygmy	13.1	Conifer Forest , Pygmy Forest, Woodland
Rocky Road	11.41	Woodland , Grassland, Savanna
SOD	15.60	Woodland
Triangle	3.34	Grassland , Developed, Woodland
Trinity	39.6	Chaparral , Conifer, Grassland, Woodland
Upper Chaparral	25.35	Chaparral , Woodland
View	6.59	Savanna , Woodland
Vineyard	3.2	Grassland , Woodland
Waterfall East	18.44	Conifer Forest , Chaparral, Woodland
Waterfall West	57.11	Woodland , Chaparral, Conifer Forest, Grassland
Woodland	15.48	Savanna, Woodland

Lead Agency

According to the PEIR, the responsible agency for the proposed project is the project proponent. The project proponent is: “a public agency providing funding for vegetation treatment or with land ownership, land management, or other regulatory responsibility in the treatable landscape and seeking

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to implement vegetation treatments consistent with this PEIR for CEQA compliance.” The PEIR states: “the CalVTP PEIR will be available for the responsible agencies (project proponent) to use for CEQA compliance when they are seeking to approve treatment projects that are consistent with the CalVTP.” If the proposed project is not found to be within the scope of the PEIR and requires additional environmental documentation (Negative declaration, Mitigated Negative Declaration, Environmental Impact Report, or other CEQA document etc.), then the project proponent can serve in the role of a lead agency in the preparation of the required additional environmental documentation.

Sonoma Resource Conservation District (Sonoma RCD) will serve as the project proponent for this project and ACR will be the lead implementation entity demonstrating ACR’s role as the primary manager, planner, and implementor of project treatment.

Purpose of PSA

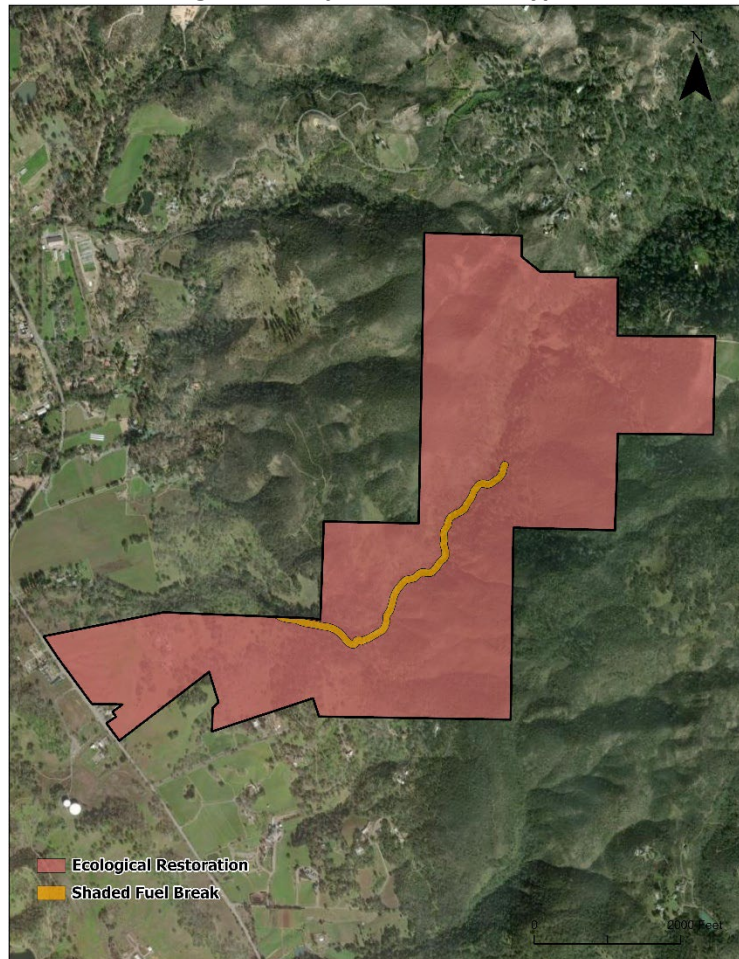
This document serves as the PSA to evaluate whether the proposed project treatments are within the scope of the CalVTP PEIR. If proposed treatments are found to be consistent with the treatments and environmental effects analyzed in the PEIR, then no additional CEQA review is required. An Addendum in the form of revisions or changes to a previously certified EIR is appropriate when said changes and revisions would result in no new or substantially more severe significant environmental impacts, consistent with CEQA Section Cal. Pub. Resources Code § 21166. Cal. Code Regs. Tit. 14 § 15162 through 15164, and § 15168.

One of the requirements of the PEIR is that a proposed project is within the treatable landscape (geographic scope) analyzed in the PEIR. If a proposed project includes areas outside of this geographic scope, those areas must share the same landscape conditions as areas analyzed in the PEIR. The proposed project includes treatments on 50 acres that fall outside of the treatable landscape analyzed in the PEIR. However, these 50 acres consist of landscape patches surrounded by treatable landscape, and they share the same landscape conditions as the surrounding treatable landscape areas. As a result, the environmental analysis in the PEIR is applicable and no additional CEQA review is required.

Treatment Description

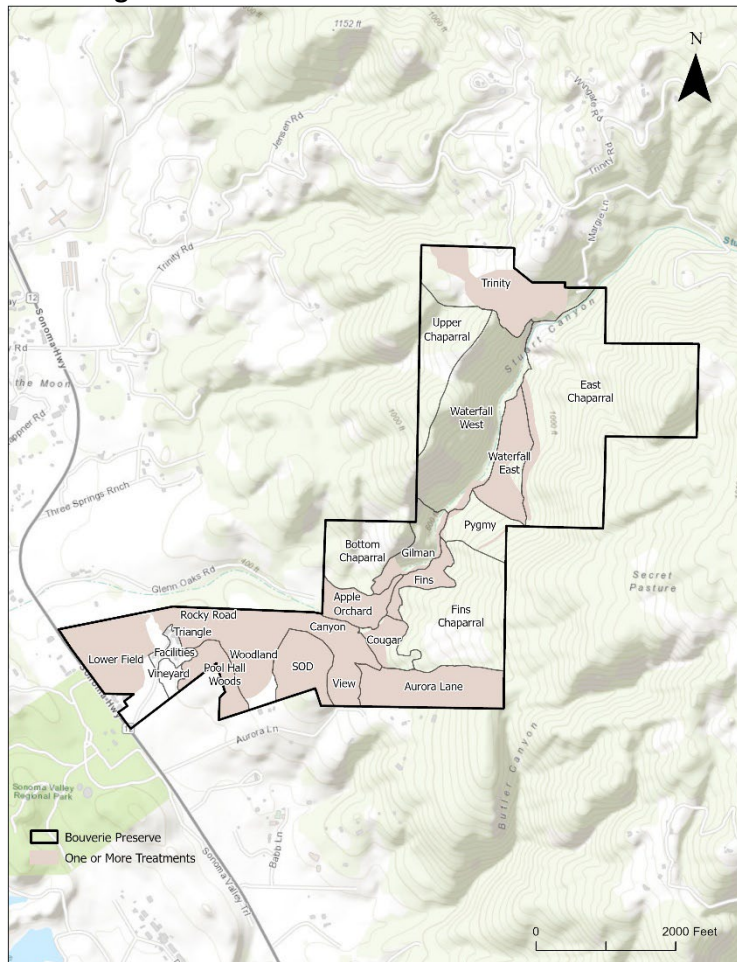
The proposed treatment types for the Project are shaded fuel break and ecological restoration (Figure 3). The proposed treatment activities are prescribed burning, manual treatments, mechanical treatments, prescribed herbivory, and herbicide. The proposed treatment types and activities for the Project are consistent with those evaluated in the PEIR. Maintenance treatments, also covered in the PEIR, would consist of the same treatment types evaluated in the PEIR.

Figure 3: Project Treatment Types



The proposed treatments would continue the fuels and post-fire recovery work started on the Preserve in 2017. Work on the preserve between 2017 and 2023 consisted of 143 acres of manual treatments, 7 acres of mechanical treatments, and 159 acres of prescribed burn (Figure 4). Many of these areas require additional treatments before they are in maintenance status.

Figure 4: Previous Treatment Area on Preserve



Implementation of treatments would require 1-60 crew members and would largely be implemented during normal daytime work hours. The only exception is prescribed burning at night which would require special permissions from the Bay Area Air Quality District. Staging areas will be limited to pre-existing parking lots within the study area thus limited the impact of the staging areas.

Treatment Type

Shaded Fuel Break

A shaded fuel break will be created for approximately 1 mile along the Canyon Trail. Approximately 50 feet on each side of the trail (11 acres) will be cleared of brush and small trees, <24" DBH, while maintaining a high canopy cover of overstory trees. Fuels generated from the treatment will be burned using an air curtain burner (mechanical), in piles, or through broadcast burning. Shaded fuel breaks provide areas along access roads that support firefighting efforts by creating areas for staging and access. In addition, they can provide improved containment lines for prescribed fire.

Ecological Restoration

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Ecological restoration treatments could be implemented on 347 acres of the Preserve to enhance native vegetation, habitat, and restore and maintain historic fire regimes, which would increase ecosystem resilience to wildfire.

Ecological Restoration goals of the Project include, but are not limited to:

- Increase ecosystem resiliency to wildfires.
- Restore and maintain fire as a process on the landscape.
- Reduce surface fuels in forest vegetation types.
- Reduce ladder fuels in forest vegetation types, including bay, Douglas fir, and shrub species.
- Reduce the threat of catastrophic wildfire.
- Remove encroaching species in oak woodland and savanna.
- Increase native grass and forb diversity in the grasslands.
- Provide prescribed fire training opportunities.
- Provide a living laboratory for ecological fire management in Sonoma County.

Treatment activities associated with ecological restoration would occur on 347 acres of the Project area in several vegetation types excluding chaparral. Ecological restoration vegetation treatments will focus on maintaining fuel and vegetation structure and fire return intervals necessary to maintain the current forest, woodland, savanna, grassland, and wetland vegetation types on the Preserve. Chaparral fuel types will not be treated, specifically to avoid type conversion of chaparral as stated in SPR BIO-5 of the PEIR. Further, approximately 2 acres are Preserve facilities which are also not included in the potential treatment areas.

Though various considerations go into management actions based on adaptive management information, broadly speaking, goals in forest and woodland ecosystem types include the removal of heavy surface fuels and ladder fuels in the understory. The focus is on the removal of encroaching trees and diseased trees. Priority will be placed on the recruitment and sprout recovery of overstory species including coast live oak, California black oak, Oregon white oak, California blue oak, Pacific madrone, coast redwood, Douglas-fir, and understory species including toyon, maple, coffeeberry, elderberry, and Napa false indigo. Allowing sprout recovery of California bay laurel, coyote brush, and poison oak will be selective and limited. The focus will be on thinning from below and cutting trees <24 DBH and brush where it is acting as a ladder fuel to the tree canopy. Slash and cut debris will not be left or piled next to trees or under tree canopy whenever possible to avoid the buildup of ladder fuels and potential heat transfer adjacent to live trees. Fuel bed height of shall not exceed 24". Fuel accumulation that reaches hazardous levels will be burned in piles or a broadcast burn at the appropriate time.

Goals for grassland vegetation types predominately include increasing biodiversity and favorable native species. This will be accomplished primarily through appropriately-timed use of prescribed fire or prescribed grazing to decrease the cover of invasive species, reduce thatch, and promote desirable native species.

Treatment Activities

The proposed treatment activities are prescribed burning, manual treatment, mechanical treatment, prescribed herbivory, and targeted application of herbicides. All these treatments (described below) are consistent with the treatment activities described in the PEIR. Biomass would be disposed of by

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mastication, chipping, lop and scatter, and burning. Access to treatment areas would occur on pre-existing roads and trails. No vehicles would be permitted off pre-existing roads. Tracked equipment, such as masticators, would be limited to slopes under 30%. All vehicles and equipment from off-site will require cleaning to avoid spreading or introducing invasive species.

The primary treatment activities that will be used to meet these objectives are prescribed fire, prescribed herbivory, and manual treatment. However, mechanical treatment and herbicide may be used to help facilitate project objectives if they are consistent with stewardship goals and are the most logistically viable, such as in the case of the shaded fuel break along Canyon Trail. Treatment types and associated equipment and tools are specific to each ecosystem type (Table 2).

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Table 2. Project Ecosystem and Treatment Types

Ecosystem Type	Vegetation Type		Total Acres	Treatment Type	Equipment/Method	Maintenance Schedule/Frequency of Treatments
	NVCS	CWHRT				
Riparian	N/A	Montane Riparian	3.8	Prescribed Burning (broadcast & pile), Mechanical Manual Targeted Herbicide	drip torches, propane torches, mobile water resources, masticators, chippers (tracked and wheeled), excavators, skid steer, tractors, bulldozers, hand tools, chainsaws, line-trimmer	5-15 years
Vernal Wetland	Western North America Vernal Pool (Macrogroup)	Fresh Emergent Wetland, Annual Grassland	3.7	Prescribed Burning (broadcast), Prescribed Herbivory Herbicide (hand application)	drip torches, propane torches, mobile water resources, masticators, hand tools, chainsaws, line-trimmer	2-8 years
Grassland	California Annual and Perennial Grassland (Macrogroup)	Annual Grassland, Perennial Grassland	59	Prescribed Burning (broadcast), Prescribed Herbivory Herbicide (hand application)	drip torches, propane torches, mobile water resources, masticators, hand tools, chainsaws, line-trimmer	2-8 years
Conifer forest	<i>Pseudotsuga menziesii</i> Alliance	Douglas Fir	62	Prescribed Burning (broadcast & pile), Mechanical Manual Targeted Herbicide	drip torches, propane torches, mobile water resources, masticators, chippers (tracked and wheeled), excavators, skid steer, tractors, bulldozers, hand tools, chainsaws, line-trimmer	5-15 years
	<i>Sequoia sempervirens</i> Alliance	Redwood				
	Temperate Forest (Subclass)	N/A				
Pygmy Forest	<i>Sequoia sempervirens</i> Alliance	Redwood	3.6	Prescribed Burning (broadcast & pile), Mechanical Manual Targeted Herbicide	drip torches, propane torches, mobile water resources, masticators, chippers (tracked and wheeled), excavators, skid steer, tractors, bulldozers, hand tools, chainsaws, line-trimmer	5-15 years
Woodland	<i>Arbutus menziesii</i> Alliance	Coastal oak woodland	215	Prescribed Burning (broadcast & pile), Mechanical	drip torches, propane torches, mobile water resources, masticators,	2-10 years

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	<i>Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni)</i> Alliance	Montane Hardwood		Manual Targeted Herbicide	chippers (tracked and wheeled), excavators, skid steer, tractors, bulldozers, hand tools, chainsaws, line-trimmer	
	<i>Quercus agrifolia</i> Alliance	Coastal Oak Woodland				
	<i>Quercus douglasii</i> Alliance	Blue Oak Woodland				
	<i>Umbellularia californica</i> Alliance	Coastal Oak Woodland				
Chaparral	<i>Adenostoma fasciculatum</i> Shrubland Alliance	Mixed Chaparral	178 (not treated)	NA	NA	NA
Total			525			

Prescribed Burning

Prescribed burning would occur on up to 346 acres of the Preserve using pile burning and broadcast burning. Prescribed burning is the primary tool for maintenance where possible. The major limiting factors to prescribed broadcast burning are suitable containment lines and vehicle and water access.

Pile Burning

Pile burning will be heavily utilized in areas where surface and ladder fuels are too abundant to broadcast burn safely, where broadcast burning is not logistically feasible, or when the amount of surface fuels generated exceeds what lop and scatter techniques may accommodate. Fuel generated from mechanical or manual treatments would primarily be piled by hand, but in some cases, equipment like a skid steer, tractor, bulldozer, or excavator may be used.

Broadcast Burning

Broadcast burning would be used to reduce fuel loading, promote native flora, and maintain natural fire regimes in forests, woodland, savanna, and grasslands. Pre-burn treatment activities like manual thinning, mechanical thinning, or prescribed herbivory may occur to ensure ecological objectives or containment line needs are met. Further, to meet the containment needs required in the burn plan, a containment line may need to be constructed using a mow line or installing a hand line. Burns may occur any time of year given they can be permitted by CAL FIRE and the Bay Area Air Quality District. All operations will be in accordance with approved burn plans.

Mechanical Treatment

Mechanical Treatment may potentially occur on up to 200 acres of the Preserve. Equipment for treatments would include masticators, chippers, or excavators to reduce shrubs and small trees. Equipment will be limited to slopes that are less than 30 percent.

Manual Treatment

Manual Treatment may occur on up to 346 acres of the Preserve. Manual treatments would include thinning, pruning, and hand piling, or lopping and scattering fuels to reduce fuel loading. Equipment would include chainsaws, pole saws, and line trimmers.

Prescribed Herbivory

Prescribed herbivory may occur on up to 62 acres of the preserve. Prescribed herbivory treatments would use domestic livestock including cows, sheep, and/or goats to reduce the cover of a target species. This treatment would most likely be used in ecosystems with an herbaceous layer dominated by grassland species. Grazing may be implemented by sheep, goats, or cattle.

Herbicide Application

Herbicide application may occur on up to 346 acres of the Preserve. Herbicide treatments would target resprouting shrubs and trees, and invasive species. that are not desirable to meet the ecosystem health

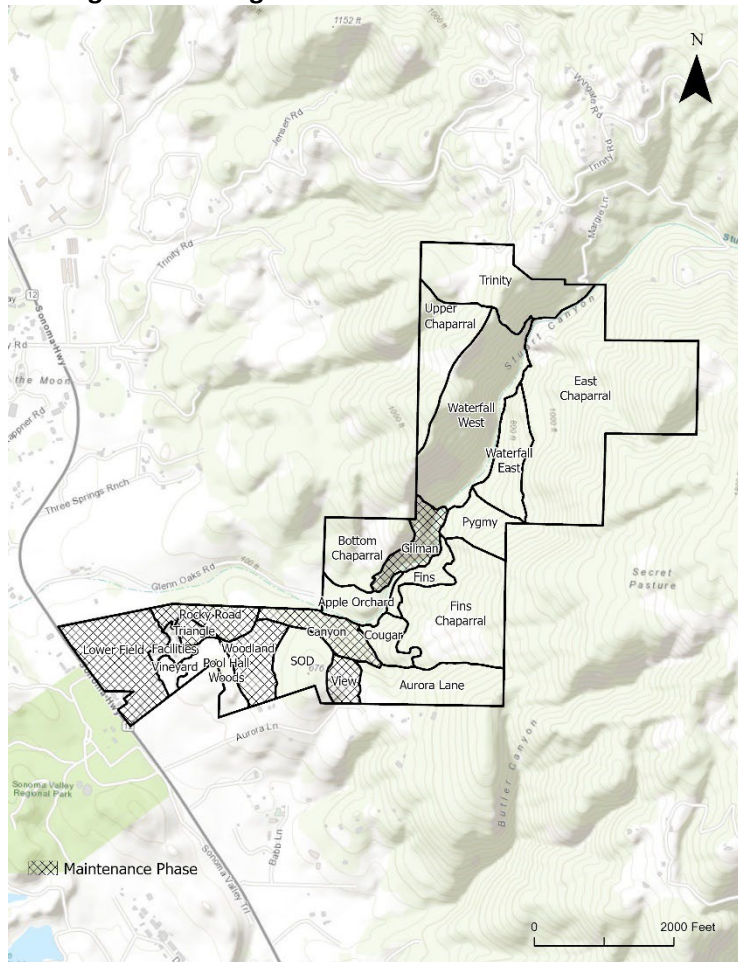
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objectives. Targeted ground-level spraying is the only type permitted. All herbicide application activities would comply with the US Environmental Protection Agency (EPA) label directions as well as California EPA and California Department of Pesticide Regulation label standards. All herbicide application will be performed by a certified and licensed pesticide applicator. All herbicide application will be done by hand and focused.

Treatment Maintenance

Maintenance treatments would be under the same shaded fuel break and ecological restoration treatment type and use the same treatment activities (prescribed burning, manual, mechanical, prescribed herbivory, and herbicide). However, the broad goal is to use prescribed burning as the primary treatment type for maintenance where feasible. Maintenance treatments will vary from site to site based on regrowth and ecosystem differences, and operational limitations. Maintenance treatments are anticipated to occur every 3 to 10 years based on specific ecosystem needs. Many units within the Project area are already considered in the maintenance phase (Figure 5).

Figure 5: Management Units in Maintenance Phase



Project Specific Analysis

VEGETATION TREATMENT PROJECT INFORMATION

1. **Project Title:** Bouverie Fuels Treatment Project
2. **Implementing Entity's Name and Address:** Audubon Canyon Ranch, 4900 Shoreline Hwy, Stinson Beach, CA 94970
3. **Contact Person Information and Phone Number for Implementing Entity:** Tom Gardali CEO,
tom.gardali@egret.org, 415-342-8909
4. **Project Proponent Name and Address:**
Sonoma County Resource Conservation District
1221 Farmers Ln Ste F
Santa Rosa, CA 95405
5. **Contact Person Information and Phone Number:** Jason Wells (707) 569-1448
6. **Project Location:** Bouverie Wildflower Preserve is located in Sonoma Valley in Sonoma County adjacent to Hwy 12. Coordinates of the Project Area are 38°22.073', -122°30.290'.
5. **Total Area to be Treated (acres)** 527
6. **Description of Project:**

Initial Treatment

Initial treatment types include shaded fuel break and ecological restoration. Treatment activities include prescribed burning, manual, mechanical, prescribed herbivory, and herbicide application. See above project description for more details.

Treatment Types *[see description in CalVTP PEIR Section 2.5.1, check every applicable category; provide detail in description of Initial Treatment]*

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

Treatment Activities *[see description in CalVTP PEIR Section 2.5.2, check every applicable category; include number of acres subject to each treatment activity, provide detail in description of Initial Treatment]*

- ☒ Prescribed Burning (Broadcast), ___346___ acres
- ☒ Prescribed Burning (Pile Burning) 346 acres
- ☒ Mechanical Treatment, ___200___ acres
- ☒ Manual Treatment, ___346___ acres
- ☒ Prescribed Herbivory, ___62___ acres
- ☒ Herbicide Application, ___346___ acres

Fuel Type *[see description in CalVTP PEIR Section 2.4.1, check every applicable category; provide detail in description of Initial Treatment]*

- ☒ Grass Fuel Type
- ☒ Shrub Fuel Type

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☒ Tree Fuel Type

Treatment Maintenance

Maintenance Treatment types include shaded fuel break and ecological restoration. Treatment activities include prescribed burning, manual, mechanical, prescribed herbivory, and herbicide application. See above project description for more details.

Treatment Types *[see description in CalVTP PEIR Section 2.5.1, check every applicable category; provide detail in description of Treatment Maintenance]*

☐ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

Treatment Activities *[see description in CalVTP PEIR Section 2.5.2, check every applicable category; include number of acres subject to each treatment activity, provide detail in description of Treatment Maintenance]*

☐ Prescribed Burning (Broadcast), __346__ acres

☐ Prescribed Burning (Pile Burning) 346 acres

☐ Mechanical Treatment, __200__ acres

☐ Manual Treatment, __346__ acres

☐ Prescribed Herbivory, 62 acres

☐ Herbicide Application, __346__ acres

Fuel Type *[see description in CalVTP PEIR Section 2.4.1, check every applicable category; provide detail in description of Treatment Maintenance]*

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

Proposed maintenance treatments include prescribed burning, mechanical, manual, prescribed herbivory, and herbicide application. Prior to implementing a maintenance treatment, the project proponent will verify that the expected site conditions as described in the PSA are present in the treatment area.

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

7. **Regional Setting and Surrounding Land Uses:** The project area is in Sonoma Valley in proximity to the town of Glen Ellen. The preserve is owned and managed by Audubon Canyon Ranch, a non-profit conservation organization. Adjacent land use surrounding the project are include but is not limited to conservation land, cattle grazing, agricultural production, and recreation.

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

- Burn Permit obtained from CAL FIRE
- Smoke Management Plan from BAAQMD
- Pesticide application permit through the Sonoma County CAL Ag permit

Coastal Act Compliance

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

9. Native American Consultation.

For treatment projects that are within the scope of the CalVTP PEIR, AB 52 consultation for AB 52 compliance has been completed. The Board of Forestry and Fire Protection conducted consultation pursuant to Public Resources Code section 21080.3.1 during preparation of the PEIR. Pursuant to CalVTP SPR CUL-2, Native American tribes were contacted on January 17th, 2025, by ALTA Archaeological Consulting. Results of these consultations are included in Attachment D which is maintained as a confidential document.

DETERMINATION (To be completed by the project proponent)

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

- ☒ I find that all of the effects of the proposed project (a) have been covered in the CalVTP PEIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP PEIR will be implemented. The proposed project is, therefore, **WITHIN THE SCOPE** of the CalVTP PEIR. **NO ADDITIONAL CEQA DOCUMENTATION** is required.
- ☒ I find that treatments in proposed project areas outside the CalVTP treatable landscape do not result in substantial changes in the project, no substantial changes in circumstances have occurred, and no new information of substantial importance has been identified. The inclusion of project areas outside the CalVTP treatable landscape will not result in any new or substantially more severe significant impacts. None of the conditions described in State CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred; therefore, this **ADDENDUM** is adopted to address the project areas outside geographic extent presented in the PEIR.
- ☐ I find that the proposed project will have effects that were not covered in the CalVTP PEIR. These effects are less than significant without any mitigation beyond what is already required pursuant to the CalVTP PEIR. A **NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project will have effects that were not covered in the CalVTP PEIR or will have effects that are substantially more severe than those covered in the CalVTP PEIR. Although these effects may be significant in the absence of additional mitigation beyond the CalVTP PEIR's measures, revisions to the proposed project or additional mitigation measures have been agreed to by the project proponent that would avoid or reduce the effects so that clearly no significant effects would occur. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project will have significant environmental effects that are (a) new and were not covered in the CalVTP PEIR and/or (b) substantially more severe than those covered in the CalVTP PEIR. Because one or more effects may be significant and cannot be clearly mitigated to less than significant, an **ENVIRONMENTAL IMPACT REPORT** will be prepared.


Signature

1/23/25
Date

BRUCE ABELLI - AMEN
Printed Name

BOARD CHAIR
Title

JONOMA RCD
Agency

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Aesthetics and Visual Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	LTS	Impact AES-1, pp. 3.2-16 – 3.2-19	Yes	AES-2 AQ-2 AQ-3 REC-1	None	LTS	No	Yes
Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	No	AD-4	None	LTS	No	Yes
Impact AES-3: Result in Long-Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Non-Shaded Fuel Break Treatment Type	SU	Impact AES-3, pp. 3.2-25 – 3.2-27	No	NA	None	None	No	Yes

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

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

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Discussion

Impact AES-1

Some proposed treatments have the potential to impact scenic view or visual character. The western edge of the project area is located adjacent to Hwy 12, and thus public view. Areas adjacent to Hwy 12 are dominated by grasslands ecosystems which quickly recover from prescribe fire making the visual impact short term. Proposed treatments and their associate impacts are within the scope of the PEIR. SPR's AES-2, AQ-2, AQ-3, and REC-1 will be implemented to reduce these impacts. These impacts were determined to be less than significant in the PEIR.

Impact AES-2

The western edge of the project area that is located adjacent to Hwy 12 is dominated by grasslands. Maintenance treatments in these grasslands include ecological restoration. Grasslands typically return to their previous visual aesthetics, a few weeks after the first rain following a prescribed fire. SPR AD-4 would be incorporated to inform the public prior to the burn operations in the project area immediately adjacent to Hwy 12. This Impact is less than significant.

Impact AES-3

Proposed treatment types do not include a fuel break within the project area immediately visible from Hwy 12.

New Aesthetic and Visual Resource Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

Project-Specific Analysis and Addendum

Agriculture and Forestry Resources

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

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

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

Impact AG-1

Initial and Maintenance treatments are focused on fuels and vegetation management to create a healthier forest that is more resilient to wildfire, specifically more resistant to stand replacing wildfires. Many vegetation types are present within the project area (including non-forest types) with many different stewardship needs. However, in forest vegetation types, the general focus will be on removing excessive surface fuels, select shrub, and small trees (typically <24" DBH) to favor and protect larger trees for a more "old growth" structure. Select small trees, seedlings, saplings will be left to ensure there is not a future type conversion.

New Agriculture and Forestry Resource Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

Project-Specific Analysis and Addendum

Air Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	PSU	Table 3.4-1; Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	Yes	AD-4, AQ-1 through 4, AQ-6	AQ-1	PSU	No	Yes
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	LTS	Table 3.4-6; Impact AQ-2 pp. 3.4-33 – 3.4-34; Appendix AQ-1	Yes	HAZ-1, NOI-4, NOI-5	NA	LTS	No	Yes
Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	LTS	Section 3.4.2; Impact AQ-3, pp. 3.4-34 – 3.4-35	No	None	NA	NA	NA	NA
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	PSU	Section 3.4.2; Impact AQ-4, pp. 3.4-35 – 3.4-37	Yes	AD-4, AQ-2, AQ-3, AQ-6	NA	PSU	No	Yes
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5, pp. 3.4-37 – 3.4-38	Yes	HAZ-1, NOI-4, NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	PSU	Section 2.5.2; Impact AQ-6; pp. 3.4-38	Yes	AD-4, AQ-2, AQ-3, AQ-6	NA	PSU	No	Yes

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

New Air Quality Impacts: Would the treatment result in other impacts to air quality that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with	Less than Significant

Project-Specific Analysis and Addendum

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

Discussion

Impact AQ-1

The proposed treatments and logistical requirements to implement them would result in impacts to emissions of criteria air pollutants and precursors generated that could exceed CAAQS or NAAQS and conflict with Regional Air Quality Plans resulting in potentially significant impacts. The impacts of the proposed treatments are within the scope analyzed in the PEIR. These impacts will be reduced by implementing SPR's AD-4, AQ-1 through 4, AQ-6 and mitigation measure AQ-1 where possible. The implementation of AQ-1 is limited by lack of appropriate and effective technology to replace Diesel engines with electric. While implementation of these measures may reduce impacts they are potentially significant and unavoidable.

Impact AQ-2

Use of vehicles and mechanical equipment associated with some of the proposed treatments could expose people to diesel particulate matter emissions. Proposed treatments activities and their associated impacts are within the scope of analyzed impacts in the PEIR. These potential impacts will be reduced by implementing SPR's HAZ-1, NOI-4, and NOI-5. These impacts are less than significant.

Impact AQ-3

No naturally occurring asbestos is mapped in the treatment area.

Impact AQ-4

Prescribed fire treatments as proposed could expose people to toxic air contaminants at levels that are potentially significant. The impacts of proposed prescribed fire treatments are within the scope analyzed in the PEIR. These impacts will be reduced by implementing SPR's AD-4, AQ-2, AQ-3, AQ-6. While implementation of these measures may reduce impacts, they are potentially significant and unavoidable.

Impact AQ-5

The use of diesel equipment associated with some proposed treatments could expose people to objectionable odors from diesel exhaust. The proposed treatment activities and their associated impacts are within the scope analyzed in the PEIR. While some proposed treatment activities may have the above impacts, excessive levels of diesel exhaust is not anticipated, and would not likely impact a substantial number of people. However, impacts will be addressed reduced by implementing SPR's HAZ-1, NOI-4, NOI-5. This impact is less-than-significant.

Impact AQ-6

Proposed prescribed fire treatments could expose people to objectionable odors and have a potentially significant impact. The proposed activities and their associated potential impacts are within the scope of the PEIR. SPR's AD-4, AQ-2, AQ-3, AQ-6 will be implemented to reduce potential impacts. While implementation of these SPR's would greatly reduce the likelihood of exposing people to objectionable odors from prescribed fire, there is no guarantee the issue would be fully mitigated. This impact is potentially significant and unavoidable.

New Air Quality Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

Project-Specific Analysis and Addendum

Archaeological, Historical, and Tribal Cultural Resources

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

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

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

Sonoma State University's Anthropological Studies Center (ASC) conducted a recorded search consistent with SPR CUL-1, and pre-field survey research and literature review consistent with SPR CUL – 3 for the entire Bouverie Preserve as well as a 500 foot buffer adjacent to the preserve on March 6th 2019. Further, Pedestrian archaeological surveys consistent with SPR CUL -03 were performed on 230 acres between March 2019, and September 2019 – June 2020.

The records search and pedestrian survey yielded 1 multicomponent site, six historic-era sites and two prehistoric sites. Results of this report are in Attachment D. This report contains site specific findings and protection measures and is maintained as confidential.

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ASC contacted the Native American Heritage Commission (NAHC) on March 1, 2019 requesting a review of the Sacred Lands File. On March 8, 2019 the NAHC responded that the search of the Sacred Lands filed was negative (this does not indicate the absence of cultural resources in the project area, the affiliate tribe should be contacted.) ASC also obtained a Native America contact list in 2020 and reached out to several tribes. It was determined that the project area was in the ancestral territory of FIGR. Audubon Canyon Ranch was already consulting with FIGR. ACR will maintain consultation with FIGR about future projects. ACR will have pedestrian surveys done by a qualified professional for all areas that were not previously surveyed.

Impact CUL-1

Proposed treatments have the potential to impact historical resources. These potential impacts have been assessed in the PEIR and implementation of SPR's CUL-1, CUL-7, and CUL-8 would result in impacts being less than significant. The proposed treatment activities are within the scope of the PEIR and would have less than significant impacts.

Impact CUL-2

Proposed vegetation treatments include mechanical treatments that could cause ground disturbance and thus have a potential to damage to known and unknown archaeological resources. Archaeological resources were identified within the project area as a result of the ASC records search and pedestrian survey. Results of these efforts are kept in a confidential document. Any archaeological resource discovered during treatment implementation will be given a 100ft buffer and assessed by an archaeologist as stated in Mitigation Measure CUL-2.

Impact CUL-3

Based on the analysis of this impact in the PEIR, inclusion of SPR CUL-1 through SPR Cul-6 and SPR CUL-8 the impact will be less than significant. Results of the SPR's are confidential.

Impact CUL-4

There is potential for mechanical treatments that are disturbing ground to uncover human remains. The proposed treatment activities and their potential impact are consistent with those analyzed in the PEIR. No SPR's are applicable to this impact.

New Archaeological, Historical, and Tribal Cultural Resource Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

Project-Specific Analysis and Addendum

Biological Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact BIO-1: Substantially Affect Special status Plant Species Either Directly or Through Habitat Modifications	LTSM	Impact BIO-1, pp 3.6-131-3.6.138	Yes	BIO-1 BIO-2 BIO-6 BIO-7 BIO-9 GEO-1 GEO-2 GEO-3 GEO-4 GEO-5 GEO-7 HYD-3 HYD-4 HYD-5 AQ-3 AQ-4	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 3.6-139-3.6-184	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-10 BIO-11 BIO-12 GEO-1 GEO-2 HYD-4	BIO-2a BIO-2b BIO-2c BIO-2g	LTSM	No	Yes
Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function	LTSM	Impact BIO-3, pp 3.6-186-3.6-191	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-6 GEO-1 GEO-3 GEO-4 GEO-5 GEO-6 GEO-7 HAZ-1 HAZ-5 HAZ-6	BIO-3a BIO-3b BIO-3c	LTSM	No	Yes

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Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
				HYD-4 HYD-5				
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTSM	Impact BIO-4, pp 3.6-191-3.6-192	No	BIO-1 BIO-2 BIO-3 BIO-4 GEO-1 GEO-4 GEO-5 GEO-6 GEO-7 HAZ-5 HAZ-6 HYD-1 HYD-3 HYD-4 HYD-5	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	No	BIO-1 BIO-2 BIO-4 BIO-10 HYD-4	None	LTS	No	Yes
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	LTS	Impact BIO-6, pp 3.6-197-3.6-198	No	BIO-1 BIO-2 BIO-10 BIO-11 BIO-12	NA	LTS	No	Yes
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	No Impact	Impact BIO-7, pp 3.6-198-3.6-199	Yes	AD-3	NA	No Impact	No	Yes
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	No Impact	Impact BIO-8, pp 3.6-199-3.6-200	No	-	NA	-	-	-

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

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

Project-Specific Analysis and Addendum

		Mitigation Incorporated	
[identify new impact here, if applicable; add rows as needed]	☐	☒	☐

Discussion

Data Review

Pursuant to SPR BIO-1, Nomad biologists conducted a data review of project specific biological resources, including habitat and vegetation types, and special status plants, special status wildlife, and sensitive natural communities with potential to occur in the treatment areas. Vegetation communities present in the treatment areas were identified using the Sonoma County Fine Scale Vegetation and Habitat Map (SCVMLP 2019) and were adjusted as necessary based on points collected during field surveys. The treatment area occupies a total of 347 acres comprised of non-native grassland, Western North American freshwater marsh macrogroup, Western North America vernal pool macrogroup, coyote brush scrub, madrone forest, knobcone pine forest, Douglas fir forest, oak woodland, coast live oak woodland, blue oak woodland, Oregon white oak woodland, valley oak woodland, redwood forest (including pygmy redwood forest), California bay forest, and Vancouverian riparian deciduous forest group, as well as developed and vineyard (Table 4.5-1). The treatment areas excludes all chaparral types.

Table 4.5-1. List of Vegetation Communities in the Bouverie Preserve Project Area

ECOSYSTEM TYPES	VEGETATION COMMUNITY
HERBACEOUS COMMUNITIES	
Non-native grassland	California Annual and Perennial Grassland Macrogroup
Western North American Freshwater Marsh Macrogroup	<i>Schoenoplectus acutus</i> Alliance <i>Schoenoplectus californicus</i> Alliance <i>Typha (angustifolia, domingensis, latifolia)</i> Alliance
Western North America Vernal Pool Macrogroup	<i>Eleocharis (acicularis, macrostachya)</i> Alliance
SHRUBLAND COMMUNITIES	
Coyote brush scrub	<i>Baccharis pilularis</i> Alliance
FOREST AND/OR WOODLAND COMMUNITIES	
Madrone forest	<i>Arbutus menziesii</i> Alliance
Knobcone pine forest	<i>Pinus attenuata</i> Alliance
Douglas fir forest & woodland	<i>Pseudotsuga menziesii</i> Forest & Woodland Alliance
Oak woodland	<i>Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizenii)</i> Alliance
Coast live oak woodland and forest	<i>Quercus agrifolia</i> Alliance
Blue oak woodland	<i>Quercus douglasii</i> Alliance
Oregon white oak woodland	<i>Quercus garryana</i> Alliance
Valley oak woodland	<i>Quercus lobata</i> Alliance
Redwood forest and woodland	<i>Sequoia sempervirens</i> Alliance
California bay forest	<i>Umbellularia californica</i> Alliance
Vancouverian Riparian Deciduous Forest Group	<i>Alnus rhombifolia</i> Alliance <i>Alnus rubra</i> Alliance

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	<i>Fraxinus latifolia</i> Alliance <i>Salix lucida</i> Alliance
DEVELOPED AND AGRICULTURAL LAND COVER TYPES	
Developed	---
Vineyard	---

Background information for listed and special status plant and wildlife species, and sensitive natural communities was compiled through a review of the following resources:

U.S. FISH AND WILDLIFE SERVICE (USFWS):

- National Wetland Inventory for the Glen Ellen Quadrangle (USFWS 2024a)
- List of Threatened and Endangered Species that May Occur in the Audubon Canyon Ranch Bouverie Preserve Project Treatment Areas. Retrieved from the USFWS Information for Planning and Consultation (IPaC) online system. <https://ecos.fws.gov/ipac/> (USFWS 2024b)

NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION FISHERIES (NOAA FISHERIES):

- Endangered and Threatened Species; Establishment of Species of Concern List, Addition of Species to Species of Concern List, Description of Factors for Identifying Species of Concern, and Revision of Candidate Species List Under the Endangered Species Act (NOAA 2004)
- Endangered and Threatened Species; Revision of Species of Concern List, Candidate Species Definition, and Candidate Species List (NOAA 2006)
- Protected Resources App (NOAA 2024)

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW):

- California Natural Communities List (CDFW 2023)
- California Natural Diversity Database (CNDDB) RareFind 5 Query for the Cotati, Glen Ellen, Kenwood, Petaluma, Petaluma River, Santa Rosa, Sears Point, Sonoma, and Rutherford USGS 7 ½ Minute Quadrangles (CDFW 2024a)
- Special Vascular Plants, Bryophytes, Lichens List (CDFW 2024b)
- Special Animal List (CDFW 2024c)
- Spotted Owl Observations Database (CDFW 2024d)
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2024e)
- State and Federally Listed Endangered, Threatened and Rare Plants of California (CDFW 2024f)
- Terrestrial Connectivity Data and Resources (CDFW 2019)

OTHER SOURCES:

- A Manual of California Vegetation (Sawyer et al. 2009)
- The California Native Plant Society's *Inventory of Rare and Endangered Plants of California* (CNPS 2001, 2024)
- Consortium of California Herbaria One (CCH1) (CCH1 2023)
- Consortium of California Herbaria Two (CCH2) (CCH2 2023)
- A Flora of Sonoma County (Best et. al. 1996)
- The Jepson eFlora (JFP 2024)

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- The Jepson Manual: Vascular Plants of California (Baldwin et al. 2012)
- Appendix BIO-3 (Table 9a, Table 9b, and Table 19) in the PEIR (Volume II) for special status plants and wildlife that could occur in the Northern California Coast ecoregion
- Section 3.6 Biological Resources (Table 3.6-16) in the PEIR (Volume II) for Vegetation and Habitat Types within the Treatable Landscape for the Northern California Coast Ecological Section

Botanical taxonomy and nomenclature conforms to *The Jepson Manual* (Baldwin et al. 2012) with the exception of recent updates posted on the *Jepson eFlora* (JFP 2024) website. Common names of plant species are derived from the *Calflora Database* (Calflora 2024). Vegetation descriptions conform to the Sonoma County Fine Scale Vegetation and Habitat Map (SCVMLP 2019)

Taxonomy and nomenclature for special status plant species conform to the Inventory of Rare and Endangered Plants of California (CNPS 2024) and Special Vascular Plants, Bryophytes and Lichens List (CDFW 2024b). Nomenclature for common and special status wildlife conforms to the Complete List of Amphibian, Reptile, Bird and Mammal Species in California (CDFW 2016) with taxonomic nomenclature updates conforming to the Special Animals List (CDFW 2024c).

Personnel and Field Investigation

Nomad principal botanist Heath Bartosh and Nomad senior wildlife biologist William Webb conducted a reconnaissance-level site visit of the treatment areas on March 22, 2023. While completing that task, Nomad personnel documented the biological resources present in the treatment areas. Those efforts included searching for plants and animals while walking throughout the treatment areas and making observations from stationary observation points.

A portion of proposed impact areas and representatives from all major vegetation communities within the treatment areas were visited and evaluated for their potential to support sensitive biological resources. Protocol-level surveys for special status plants and animals were not conducted as part of this assessment. However, all plant species in bloom or otherwise recognizable during the site visit were identified to a level necessary to determine their regulatory status. In addition, all wildlife species observed or recognized by diagnostic sign (e.g., audible call, tracks, scat, carcasses, burrows) were identified and recorded.

Assessment and Findings

A complete list of special status species known to occur in the vicinity¹ of treatment areas and considered as part of this assessment, their regulatory status, habitat requirements, local distribution, and potential for occurrence are listed in Attachment B. Following implementation of SPR BIO-1, including review of relevant literature, knowledge of regional biota, and observations made during field investigations, a total of 41 special status plants (including three known to be present within the treatment areas) and 27 special status animals (including one known to be present within the treatment areas) were determined to have the potential to occur in the treatment areas (Table 4.5-2,3). Complete tables discussing all species considered in this assessment, including those determined to have no potential occur or not expected to occur within the treatment areas, is included in Appendices B and C. Potential for occurrence determinations can be defined as follows:

- None denotes a complete lack of habitat suitability, local range restrictions, and/or regional extirpations.
- Not Expected denotes situations where suitable habitat or key habitat elements may be present but may be of poor quality or isolated from the nearest extant occurrences. Incompatible habitat suitability refers to elevation, geology, soil chemistry and type, vegetation communities, microhabitats, and degraded/significantly altered habitats. These factors create unsuitable ecological conditions for the consideration of even a low occurrence potential within the study area.

¹ Vicinity is defined as the area within the Cotati, Glen Ellen, Kenwood, Petaluma, Petaluma River, Santa Rosa, Sears Point, Sonoma, and Rutherford USGS 7 ½ Minute Quadrangles.

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- Absent indicates specified taxa not observed during field investigations which were consequently ruled out. This category also refers to diagnostic vegetative material of perennial species not observed on site. This category refers only to plant species.
- Not Observed refers to plant species that were considered to have a potential to occur within the study area but were not observed during the course of the botanical surveys. This designation is primarily used for annual plant species that may not be present every year.
- Possible indicates the presence of suitable habitat or key habitat elements that potentially support a specific species or taxa.
- Present indicates the target species was either observed directly or its presence was confirmed by diagnostic sign (i.e. tracks, scat, burrows, carcasses, castings, prey remains, etc.) during field investigations.

Of special status plant species determined to have potential to occur within the treatment areas, two species, Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*) and two-fork clover (*Trifolium amoenum*), are listed as federally endangered. One species, Clara Hunt's milk-vetch (*Astragalus claranus*), is listed as federally endangered and state threatened, and one species, Kenwood Marsh checkerbloom (*Sidalcea oregana* subsp. *valida*), is listed as federally and state endangered. One species, North Coast semaphore grass (*Pleuropogon hooverianus*), is state listed as threatened. Of the species detected on the preserve, one species Sonoma sunshine (*Blennosperma bakeri*), is listed as federally and state endangered, and the other two, narrow-anthered brodiaea (*Brodiaea leptandra*) and Sonoma ceanothus (*Ceanothus sonomensis*), are not federally or state listed; however, they have conservation status from CNPS (CNPS 2024).

One special status wildlife species, California freshwater shrimp (*Syncaris pacifica*), is listed as federally and state endangered, and one species, northern spotted owl (*Strix occidentalis caurina*), is listed as federally threatened and state threatened. One species, steelhead – central California coast DPS (*Oncorhynchus mykiss irideus* pop. 8), is listed as federally threatened. One species, Crotch bumble bee (*Bombus crotchii*) is a candidate for state listing as endangered. One species, Swainson's hawk (*Buteo swainsoni*), is listed as state threatened. Two species, golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*) are fully protected. 20 species are California Species of Special Concern: California red-legged frog (*Rana draytonii*), California giant salamander (*Dicamptodon ensatus*), foothill yellow-legged frog north coast DPS (*Rana boylei*), red-bellied newt (*Taricha rivularis*), northwestern pond turtle (*Emys marmorata*), yellow rail (*Coturnicops noveboracensis*), black swift (*Cypseloides niger*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), American badger (*Taxidea taxus*), tricolored blackbird (*Agelaius tricolor*), redhead (*Aythya americana*), grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), northern harrier (*Circus hudsonius*), olive-sided flycatcher (*Contopus cooperi*), loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), yellow warbler (*Setophaga petechia*), and western red bat (*Lasiurus frantzii*). Of these ten species, California red-legged frog is also federally listed as threatened, northwestern pond turtle is federally proposed as threatened, and tricolored blackbird is state listed as threatened. Red-bellied newt was detected during reconnaissance.

These species are discussed in more detail below in Tables 4.5-1 and 4.5-2, as well as under Impact BIO-1 (special status plants) and Impact BIO-2 (special status animals).

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Table 4.5-2: Special Status Plants Present or Potentially Occurring in the Treatment Areas²

SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
FEDERAL/STATE ENDANGERED OR THREATENED AND CALIFORNIA RARE PLANT RANK SPECIES					
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma alopecurus	Fed: FE CA: None CEQA: 1B.1	Occurs in freshwater marshes and swamps and riparian scrub at elevations between 5 and 365 meters. Known from MRN and SON counties. Two occurrences introduced in 1987, although both appear to have failed as of 1993. Historical localities need surveys.	May-July perennial herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNNDDB occurrence (EONDX # 21922) is a specific record located at Ledson Marsh in Trione-Annadel State Park approximately 5.3 miles northwest of the treatment areas. However, the identification of <i>Alopecurus</i> plants at this site has been questioned and genetic testing is needed.	Possible
<i>Astragalus claranus</i> Clara Hunt's milk-vetch	Fed: FE CA: ST CEQA: 1B.1	Occurs on clay, rocky, serpentine (sometimes), and volcanic (sometimes) soils in chaparral (openings), cismontane woodland, and valley and foothill grassland at elevations between 75 and 275 meters. Known from NAP and SON counties.	March-May annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNNDDB occurrence (EONDX # 6732) is a specific record located just south of St. Helena approximately 6.7 miles north of the treatment areas. The type locality for this taxon is likely from this population.	Possible

² A complete table of all special status plant species considered in this assessment, including those determined to have no potential occur or not expected to occur within the treatment areas, is included in Appendix B.

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Blennosperma bakeri</i> Sonoma sunshine	Fed: FE CA: SE CEQA: 1B.1	Occurs in mesic valley and foothill grassland and vernal pools at elevations between 10 and 110 meters. Known from MEN and SON counties.	March-May annual herb	Suitable vegetation associations and elevations are present within the treatment areas. CNDDDB occurrence (EONDX # 90739) is a specific record which occurs in the western end of the treatment areas. This occurrence is introduced, using seed from another occurrence (EONDX # 5300) across the highway at Sonoma Valley Regional Park. Plants have been observed at the introduced occurrence as recently as 2017.	Present
<i>Pleuropogon hooverianus</i> North Coast semaphore grass	Fed: None CA: ST CEQA: 1B.1	Occurs in openings and mesic substrates within broadleafed upland forest, meadows and seeps, and North Coast coniferous forest at elevations between 10 and 671 meters. Known from MRN, SON, MEN, and HUM counties.	April-June perennial rhizomatous herb	While there are no CNDDDB occurrences of the species within the vicinity of the treatment areas, suitable vegetation associations and elevations are present within the treatment areas and the species may occur within the treatment areas.	Possible
<i>Sidalcea oregana</i> subsp. <i>valida</i> Kenwood Marsh checkerbloom	Fed: FE CA: SE CEQA: 1B.1	Occurs in freshwater marshes and swamps at elevations between 115 and 150 meters. Known from two occurrences in SON county.	June-September perennial rhizomatous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 4770) is a specific record from Kenwood Marsh approximately 3.2 miles northwest of the treatment areas.	Possible
<i>Trifolium amoenum</i> two-fork clover	Fed: FE CA: None CEQA: 1B.1	Occurs in coastal bluff scrub and valley and foothill grassland (sometimes on serpentine) at elevations between 5 and 415 meters. Known from MRN, NAP, SMT, SOL, and SON counties. Rediscovered in 1993.	April-June annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 46524) is a non-specific record from around Kenwood approximately 3.7 miles northwest of the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
CALIFORNIA NATIVE PLANT SOCIETY LISTED AND LOCALLY RARE SPECIES					
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	Fed: None CA: None CEQA: 1B.2	Occurs on clay, serpentine (often), and volcanic soils in cismontane woodland, valley and foothill grassland at elevations between 52 and 305 meters. Known from MEN, NAP, SCL, SMT, and SON counties.	(April) May-June perennial bulbiferous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 45130) is a non-specific record from southwest Kenwood approximately 4.1 miles northwest of the treatment areas.	Possible
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	Fed: None CA: None CEQA: 1B.2	Occurs in broadleaved upland forest openings, chaparral, and cismontane woodland at elevations between 50 and 2,000 meters. Known from LAK, MRN, NAP, and SON counties.	April-July perennial deciduous shrub	Suitable vegetation associations and elevations are present within the treatment areas. CNDDDB occurrence (EONDX # 123801) is a specific record mapped within the treatment areas.	Present
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	Fed: None CA: None CEQA: 1B.2	Occurs in cismontane woodland, coastal bluff scrub, and valley and foothill grassland at elevations between 3 and 500 meters. Known from ALA, CCA, COL, LAK, MRN, NAP, SCL, SCR, SFO, SMT, SON, SUT, and YOL counties. May occur in SHA and SIS counties.	March-June annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 109744) is a non-specific record from near Rutherford approximately 8.4 miles north of the treatment areas.	Possible
<i>Antirrhinum virga</i> twig-like snapdragon	Fed: None CA: None CEQA: 4.3	Occurs on rocky, often serpentine soils in openings of chaparral and lower montane coniferous forest at elevations between 100 and 2,015 meters. Known from LAK, NAP, SON, and YOL counties.	June-July perennial herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 1902 Heller collection (# 5775) from Sonoma Creek at the foot of Mt. Hood.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Arctostaphylos stanfordiana</i> subsp. <i>decumbens</i> Rincon Ridge manzanita	Fed: None CA: None CEQA: 1B.1	Occurs in chaparral on rhyolitic soils and cismontane woodland at elevations between 75 and 370 meters. Known from NAP and SON counties.	February-April (May) perennial evergreen shrub	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 82842) is a specific record from Oakville Grade Road approximately 3.2 miles northeast of the treatment areas.	Possible
<i>Astragalus breweri</i> Brewer's milk-vetch	Fed: None CA: None CEQA: 4.2	Occurs on serpentine and volcanic soils in chaparral, cismontane woodland, meadows and seeps, and gravelly openings in valley and foothill grassland at elevations between 90 and 730 meters. Known from COL, LAK, MEN, MRN, NAP, and SON counties.	April-June annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is an 1862 Brewer collection (# 979) from near Sonoma.	Possible
<i>Brodiaea leptandra</i> narrow-anthered brodiaea	Fed: None CA: None CEQA: 1B.2	Occurs on volcanic soils in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland at elevations between 110 and 915 meters. Known from LAK, NAP, and SON counties.	May-July perennial bulbiferous herb	Suitable vegetation associations and elevations are present within the treatment areas. CNDDDB occurrence (EONDX # 100867) is a non-specific record which overlaps with the central portion of the treatment areas.	Present

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Calandrinia breweri</i> Brewer's calandrinia	Fed: None CA: None CEQA: 4.2	Occurs within chaparral and coastal scrub in burned areas, disturbed areas, sometimes on loam or sandy substrates at elevations between 10 and 1,220 meters. Known from CCA, ELD, LAX, MRN, MPA, MNT, NAP, ORA, RIV, SDG, SLO, SMT, SBA, SCL, SCR, SON, and VEN counties.	(January) March-June annual herb	Suitable vegetation associations and elevations are present within the treatment areas and was recently burned. The nearest voucher specimen is a 2018 Warner collection (# 354) from Glen Oaks Ranch towards Bouverie Preserve boundary.	Possible
<i>Calochortus uniflorus</i> pink star-tulip	Fed: None CA: None CEQA: 4.2	Occurs in coastal prairie, coastal scrub, meadows and seeps, and North Coast coniferous forest at elevations between 10 and 1070 meters. Known from COL, LAK, MNT, MRN, NAP, SCR, SMT, and SON counties.	April-June perennial bulbiferous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 2015 Howald collection (# 3340) from Ledson Marsh at Trione-Annadel State Park.	Possible
<i>Castilleja ambigua</i> var. <i>ambigua</i> johnny-nip	Fed: None CA: None CEQA: 4.2	Occurs in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, and vernal pool margins at elevations between 0 and 435 meters. Known from ALA, CCA, DNT, HUM, MEN, MRN, NAP, SCR, SMT, SOL, and SON counties.	March-August annual herb (hemiparasitic)	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is an 1893 Bioletti collection from Glen Ellen.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Ceanothus confusus</i> Rincon Ridge ceanothus	Fed: None CA: None CEQA: 1B.1	Occurs on serpentine (sometimes) and on volcanic (sometimes) soils in chaparral, cismontane woodland, and closed-cone coniferous forest at elevations between 75 and 1065 meters. Known from LAK, MEN, NAP, and SON counties.	February-June perennial evergreen shrub	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 18708) is a non-specific record from Mount St. John, northwest of Yountville approximately 4 miles north of the treatment areas.	Possible
<i>Ceanothus purpureus</i> holly-leaved ceanothus	Fed: None CA: None CEQA: 1B.2	Occurs on rocky, volcanic soils in chaparral, cismontane woodland at elevations between 120 and 640 meters. Known from NAP, SOL, and SON counties.	February-June perennial evergreen shrub	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 49202) is a non-specific record from northwest of Kenwood, approximately 7.7 miles northwest of the treatment areas.	Possible
<i>Ceanothus sonomensis</i> Sonoma ceanothus	Fed: None CA: None CEQA: 1B.2	Occurs on sandy, serpentine, and volcanic soils in chaparral at elevations between 215 and 800 meters. Known from LAK, NAP, and SON counties.	February-April perennial evergreen shrub	Suitable vegetation associations and elevations are present within the treatment areas. CNDDDB occurrence (EONDX # 98404) is a specific record which overlaps with the central portion of the treatment areas and has been observed by ACR staff.	Present
<i>Downingia pusilla</i> dwarf downingia	Fed: None CA: None CEQA: 2B.2	Occurs in mesic valley and foothill grassland and vernal pools at elevations between 1 and 445 meters. Known from FRE, MER, NAP, PLA, SAC, SJQ, SOL, SON, STA, TEH, and YUB counties.	March-May annual herb	Suitable vegetation associations and elevations are present within the treatment areas. CNDDDB occurrence (EONDX # 5217) is a specific record which overlaps with the western end of the treatment areas. Observed and monitored by ACR in vernal pools at western end of treatment areas.	Present

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Erigeron biolettii</i> streamside daisy	Fed: None CA: None CEQA: 3	Occurs in mesic and rocky broadleafed upland forest, cismontane woodland, and North Coast coniferous forest at elevations between 30 and 1,100 meters. Known from HUM, MEN, MRN, NAP, SOL, and SON counties.	June-October perennial herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 2017 Ruygt collection (# 6370) from Mt. Veeder.	Possible
<i>Harmonia nutans</i> nodding harmonia	Fed: None CA: None CEQA: 4.3	Occurs on gravelly or rocky volcanic soils in chaparral and cismontane woodland at elevations between 75 and 975 meters. Known from LAK, NAP, SOL, SON, and YOL counties.	March-May annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 2017 Ruygt collection (# 6370) from Mt. Veeder.	Possible
<i>Hemizonia congesta</i> subsp. <i>congesta</i> congested-headed hayfield tarplant	Fed: None CA: None CEQA: 1B.2	Occurs in valley and foothill grassland, sometimes on roadsides, at elevations between 20 and 560 meters. Known from LAK, MEN, MRN, SFO, SMT, and SON counties.	April-November annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 109813) is a non-specific record from El Verano, approximately 4.6 miles south of the treatment areas.	Possible
<i>Horkelia tenuiloba</i> thin-lobed horkelia	Fed: None CA: None CEQA: 1B.2	Occurs in mesic, sandy openings in broadleafed upland forest, chaparral, and valley and foothill grassland at elevations between 50 and 500 meters. Known from MEN, MRN, and SON counties.	May-July (August) perennial herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 73189) is a non-specific record from the main ridge separating Nathanson and Agua Caliente Creeks, approximately 3.7 miles southeast of the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Hosackia gracilis</i> harlequin lotus	Fed: None CA: None CEQA: 4.2	Occurs in wetlands in broadleafed upland forest, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, meadows and seeps, North Coast coniferous forest, and valley and foothill grassland at elevations between 0 and 700 meters. Known from DNT, HUM, MEN, MNT, MRN, SCL, SCR, SFO, SLO, SMT, and SON counties.	March-July perennial rhizomatous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is an 1893 Bioletti collection from Kenwood.	Possible
<i>Iris longipetala</i> coast iris	Fed: None CA: None CEQA: 4.2	Occurs in mesic areas within coastal prairie, lower montane coniferous forest, and meadows and seeps at elevations between 0 and 600 meters. Known from ALA, CCA, ELD, GLE, HUM, MEN, MER, MNT, MRN, SCL, SCR, SFO, SMT, SOL, SON, and VEN counties.	March-May (June) perennial rhizomatous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 1999 Ruygt collection (# 4138) from Sugarloaf State Park.	Possible
<i>Legenere limosa</i> legenere	Fed: None CA: None CEQA: 1B.1	Occurs in vernal pools at elevations between 1 and 880 meters. Known from ALA, LAK, MNT, NAP, PLA, SAC, SCL, SHA, SJQ, SMT, SOL, SON, STA, TEH, and YUB counties.	April-June annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 102063) is a non-specific record from Trione-Annadel State Park, approximately 4.6 miles northwest of the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Leptosiphon aureus</i> bristly leptosiphon	Fed: None CA: None CEQA: 4.2	Occurs in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland at elevations between 55 and 1,500 meters. Known from ALA, BUT, COL, HUM, KRN, LAK, MEN, MRN, NAP, PLA, SBT, SCL, SCR, SMT, SOL, SON, and YUB counties.	April-July annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 2018 Warner collection (# 353) from Glen Oaks Ranch.	Possible
<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	Fed: None CA: None CEQA: 1B.2	Occurs usually on volcanic soils in chaparral, cismontane woodland, and valley and foothill grassland at elevations between 100 and 500 meters. Known from LAK, NAP, SOL, SON, and YOL counties.	March-May annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 82492) is a non-specific record from Dry Creek Road, approximately 2.1 miles northeast of the treatment areas. This species has been confirmed in the treatment areas by ACR staff.	Present
<i>Leptosiphon latisectus</i> broad-lobed leptosiphon	Fed: None CA: None CEQA: 4.3	Occurs in broadleafed upland forest and cismontane woodland at elevations between 170 and 1,500 meters. Known from COL, DNT, HUM, LAK, MRN, MEN, MNT, NAP, SBT, SFO, SMT, SHA, SON, TEH, TRI, and YOL counties.	April-June annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 2016 Ruygt collection (# 6209) from Amy's Grove, Dry Creek Road.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Lilium rubescens</i> redwood lily	Fed: None CA: None CEQA: 4.2	Occurs on serpentine (sometimes) soils in broadleafed upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, and upper montane coniferous forest at elevations between 30 and 1,910 meters. Known from CCA, DNT, GLE, HUM, MEN, NAP, SHA, SIS, SON, and TRI counties.	(March) April-August (September) perennial bulbiferous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 1978 Dobson collection (# 337) from the east side of Mt. Veeder. This species has been confirmed in the treatment areas by ACR staff.	Present
<i>Lomatium repostum</i> Napa lomatium	Fed: None CA: None CEQA: 4.2	Occurs in chaparral and cismontane woodland at elevations between 90 and 1,030 meters. Known from LAK, NAP, SOL, and SON counties.	March-June perennial herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 1966 Howell collection (# 41551) from the hills east of Agua Caliente. This species has been confirmed in the treatment areas by ACR staff.	Present
<i>Lupinus sericatus</i> Cobb Mountain lupine	Fed: None CA: None CEQA: 1B.2	Occurs in broadleafed upland forest, chaparral, cismontane woodland, and lower montane coniferous forest at elevations between 275 and 1,525 meters. Known from COL, LAK, NAP, and SON counties.	March-June perennial herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDB occurrence (EONDX # 30910) is a specific record from Trinity Road, approximately 0.1 miles north of the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Micropus amphibolus</i> Mt. Diablo cottonweed	Fed: None CA: None CEQA: 3.2	Occurs in rocky areas of broadleafed upland forest, chaparral, cismontane woodland, and valley and foothill grassland at elevations between 45 and 825 meters. Known from LAK, MNT, MRN, NAP, SCR, and SJQ counties.	March-May annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 1948 Howell collection (# 24203) from the hills east of Agua Caliente.	Possible
<i>Microseris paludosa</i> marsh microseris	Fed: None CA: None CEQA: 1B.2	Occurs in cismontane woodland, closed-cone coniferous forest, coastal scrub, and valley and foothill grassland at elevations between 5 and 355 meters. Known from MEN, MNT, MRN, SCR, SFO, SLO, SMT, SOL, and SON counties.	April-June (July) perennial herb	While there are no CNDDDB occurrences of the species within the vicinity of the treatment areas, suitable vegetation associations and elevations are present within the treatment areas and the species may occur within the treatment areas.	Possible
<i>Monardella viridis</i> green monardella	Fed: None CA: None CEQA: 4.3	Occurs in broadleafed upland forest, chaparral, and cismontane woodland at elevations between 100 and 1,010 meters. Known from LAK, LAX, MEN, NAP, and SON counties.	June-September perennial rhizomatous herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is a 2007 Solomeshch collection (s.n.) from Oakville Grade Road.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Navarretia leucocephala</i> subsp. <i>bakeri</i> Baker's navarretia	Fed: None CA: None CEQA: 1B.1	Occurs in mesic cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools at elevations between 5 and 1,740 meters. Known from COL, GLE, HUM, LAK, LAS, MEN, MRN, NAP, SOL, SON, SUT, TEH, and YOL counties. May be more widespread.	April-July annual herb	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 6828) is a specific record from Bennet Valley Road, approximately 3.8 miles northwest of the treatment areas.	Possible
<i>Ranunculus lobbii</i> Lobb's aquatic buttercup	Fed: None CA: None CEQA: 4.2	Occurs in mesic cismontane woodland, North Coast coniferous forest, valley and foothill grassland, and vernal pools at elevations between 15 and 470 meters. Known from ALA, CCA, LAK, MEN, MNT, MRN, NAP, SAC, SCL, SCR, SMT, SOL, and SON counties.	February-May annual herb (aquatic)	Suitable vegetation associations and elevations are present within the treatment areas. The nearest voucher specimen is an 1898 Baker collection (# 603) from Glen Ellen.	Possible
<i>Trichostema ruygtii</i> Napa bluecurls	Fed: None CA: None CEQA: 1B.2	Occurs in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and vernal pools at elevations between 30 and 680 meters. Known from LAK, NAP, SOL, and SON counties.	June-October annual herb	Suitable vegetation associations are present. The nearest CNDDDB occurrence (EONDX # 77669) is a specific record from east northeast of Yountville, approximately 9.7 miles northeast of the treatment areas. Another known population, not yet in the CNDDDB, is known from Trione-Annadel State Park, approximately 4 miles west of the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	FLOWERING PHENOLOGY/LIFEFORM	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Triteleia lugens</i> dark-mouthed triteleia	Fed: None CA: None CEQA: 4.3	Occurs in broadleaved upland forest, chaparral, coastal scrub, and lower montane coniferous forest at elevations between 100 and 1,000 meters. Known from NAP, SBT, SOL, and SON counties.	April-June perennial bulbiferous herb	Suitable vegetation associations and elevations are present within the treatment areas.	Possible
<i>Viburnum ellipticum</i> oval-leaved viburnum	Fed: None CA: None CEQA: 2B.3	Occurs in chaparral, cismontane woodland, and lower montane coniferous forest at elevations between 215 and 1,400 meters. Known from ALA, CCA, ELD, FRE, GLE, HUM, LAK, MEN, NAP, PLA, SHA, SOL, SON, and TEH counties.	May-June perennial deciduous shrub	Suitable vegetation associations and elevations are present within the treatment areas. The nearest CNDDDB occurrence (EONDX # 49960) is a non-specific record from Nattkemper Trail at Hood Mountain Regional Park, approximately 4.5 miles north of the treatment areas.	Possible

Federal listing codes:

FE Federally listed as Endangered
 FT Federally listed as Threatened
 FPE Federally proposed for listing as Endangered
 FPT Federally proposed for listing as Threatened
 FPD Federally proposed for delisting
 FC Federal candidate species (former Category 1 candidates)
 SC Species of Concern – No longer maintained by USFWS

California listing codes:

SE State listed as Endangered
 ST State listed as Threatened
 SR State listed as Rare
 SCE State candidate for listing as Endangered
 SCT State candidate for listing as Threatened

California Native Plant Society codes:

1A Presumed extinct in California
 1B Rare or Endangered in California and elsewhere
 2 Rare or Endangered in California, more common elsewhere
 3 Plants for which we need more information - Review list
 4 Plants of limited distribution - Watch list

California Native Plant Society Threat Codes:

.1 Seriously Endangered in California (over 80% of occurrences Threatened / high degree and immediacy of threat)
 .2 Fairly Endangered in California (20-80% occurrences Threatened)
 .3 Not very Endangered in California (<20% of occurrences Threatened or no current threats known)

Notes: CNPS List 1A and some List 3 plant species lacking any threat information receive no threat code extension. CNPS R-E-D Codes have been discontinued -

Blooming times given by the CNPS Inventory

EONDX is the CNDDDB Element Occurrence Index number which corresponds to unique records in the California Natural Diversity Database.

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Abbreviations

AMA Amador
BUT Butte
CAL Calaveras
CCA Contra Costa
CNDDDB CA Natural Diversity Database
CNPS CA Native Plant Society
COL Colusa
DNT Del Norte
ELD El Dorado
FRE Fresno
GLE Glenn
HUM Humboldt
KRN Kern
LAK Lake
LAS Lassen
LAX Los Angeles
MAD Madera
MOD Modoc
MEN Mendocino
MER Merced
MNT Monterey
MPA Mariposa
MRN Marin
NAP Napa
NEV Nevada
ORA Orange
PLA Placer
PLU Plumas

RIV Riverside
SAC Sacramento
SBA Santa Barbara
SBD San Bernardino
SBT San Benito
SCL Santa Clara
SCR Santa Cruz
SCT Santa Catalina Island
SCZ Santa Cruz Island
SDG San Diego
SFO San Francisco
SHA Shasta
SIE Sierra
SIS Siskiyou
SJQ San Joaquin
SMI San Miguel Island
SMT San Mateo
SNI San Nicolas Island
SOL Solano
SON Sonoma
SRO Santa Rosa Island
TEH Tehama
TRI Trinity
TUL Tulare
VEN Ventura
YOL Yolo
YUB Yuba

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Table 4.5-3: Special Status Wildlife Present or Potentially Occurring in the Treatment Areas³

SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
FEDERAL/STATE LISTED, PROPOSED, CANDIDATE AND/OR FULLY PROTECTED SPECIES				
INVERTEBRATES:				
<i>Bombus crotchii</i> Crotch bumble bee	SC	This species occurs from coastal California east to the Sierra Nevada Cascade crest. It occurs at relatively warm and dry sites in open grassland and scrub habitats. Colonies are annual and only the new, mated queens overwinter. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.	The nearest CNDDDB occurrence, (EONDX #98547, from 1910) occurs approximately 1.7 miles south of the treatment areas. The treatment areas include potentially suitable open grassland and scrub landcover types. Recent verified sightings in Sonoma County suggest that the species may be present (Bumble Bee Watch 2024).	Possible
<i>Syncaris pacifica</i> California freshwater shrimp	FE SE	Inhabits low elevation (<380 feet) perennial and intermittent freshwater streams with structurally diverse pools and streambanks below 380 feet. Requires high water quality with minimal pollution and high oxygen content. The shrimp is endemic to Marin, Napa and Sonoma counties and is currently known from 17 coastal streams including Lagunitas, Walker, Stemple, Salmon, Austin, Green Valley, Laguna de la Santa Rosa, Huichica and Sonoma creeks and the Napa River (USFWS 2022).	The nearest CNDDDB occurrence, (EONDX #23139, from 2013) occurs approximately 0.73 miles west of the treatment areas in Sonoma Creek. Stuart Creek is a perennial creek that runs through the treatment areas and drains into Sonoma Creek. Stuart Creek represents potentially suitable aquatic habitat for this species.	Possible
FISH:				

³ A complete table of all special status wildlife species considered in this assessment, including those determined to have no potential occur or not expected to occur within the treatment areas, is included in Appendix C.

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Oncorhynchus mykiss irideus</i> pop. 8 steelhead – central California coast DPS	FT	An anadromous fish that spend several years in the ocean; returning to freshwater rivers to spawn and rear. Listing includes all naturally spawned anadromous steelhead populations (and their progeny) below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, as well as two artificial propagation programs: the Coleman NFH, and Feather River Hatchery steelhead hatchery programs (70 FR 37160). Designated critical habitat encompasses 2,308 miles streams, 254 square miles estuary habitat in Tehama, Butte, Glenn, Shasta, Yolo, Sacramento, Solano, Yuba, Sutter, Placer, Calaveras, San Joaquin, Stanislaus, Tuolumne, Merced, Alameda, Contra Costa counties (70 FR 52488). The North Diablo Range watershed and South San Francisco Bay entire unit were excluded from the designation based on their potential economic impact (70 FR 52488). Primary constituent elements include: (1) freshwater spawning sites, (2) freshwater rearing sites, (3) freshwater migration corridors free of obstructions, (4) estuarine areas free of obstructions, and (5) nearshore marine areas free of obstructions (70 FR 52488).	The nearest CNDDDB occurrence, (EONDX #97911 from 2014) occurs within Stuart Creek which runs through the treatment areas. Stuart Creek is a perennial creek that runs through the treatment areas and drains into Sonoma Creek. Stuart Creek represents potentially suitable aquatic habitat for this species.	Possible
AMPHIBIANS:				
<i>Rana draytonii</i> California red-legged frog	FT SSC	A medium-sized frog that inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation (Jennings and Hayes 1994, Bulger et al. 2003, Stebbins 2003).	The nearest CNDDDB occurrence, (EONDX #98186, from 2013) occurs approximately 3.6 miles west of the treatment areas. The treatment areas contain at least one pond which represents potential breeding habitat in addition to other potential aquatic habitat for this species such as Stuart Creek and several ephemeral streams.	Possible
REPTILES:				

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Emys marmorata</i> Northwestern pond turtle	FC SSC	Inhabits permanent or nearly permanent bodies of water and low gradient slow-moving streams below 6,000 feet elevation.	The nearest CNDDDB occurrence, (EONDX #97903, from 2015) occurs approximately 4.2 miles southwest of the treatment areas. The pond located on the southwestern edge of the treatment areas and the perennial streams form potential habitat for this species.	Possible
BIRDS:				
<i>Agelaius tricolor</i> tricolored blackbird (nesting colony)	BCC SSC ST	Highly colonial species; nest in emergent vegetation within aquatic and riparian habitats. Nesting season is from March to late-August.	The nearest CNDDDB occurrence, (EONDX #30789, from 1976) occurs approximately 8.6 miles west of the treatment areas. Suitable habitat for the species may be present within aquatic habitat in the treatment areas.	Possible
<i>Aquila chrysaetos</i> golden eagle	BCC FP	A large diurnal raptor that nests on cliffs and in large trees in open areas. Forages in open terrain including grasslands, deserts, savannahs and early successional stages of forest and shrub habitats (Kochert et al. 2002). A year-round resident in the greater Bay Area. Breeding activities begin in December in California.	Suitable nesting habitat is present in the treatment areas within tall trees. The nearest CNDDDB occurrence, (EONDX #97886, from 2015) occurs approximately 3.9 miles southwest of the treatment areas.	Possible
<i>Buteo swainsoni</i> Swainson's hawk	BCC ST	Breeds in stands of tall trees in open areas. Requires adjacent suitable foraging habitats such as grasslands or alfalfa fields supporting rodents; breeding occurs from March to August.	The nearest CNDDDB occurrence, (EONDX #91839, from 2012) occurs approximately 6.5 miles northeast of the treatment areas near Yountville from 2012. The second closest record is 8.5 miles southeast from 2013 south of the City of Sonoma. There is also a cluster of nests in southern Napa to the southeast about 15 miles away. The treatment areas contain grassland and nearby agricultural fields potentially suitable as foraging habitat for this species. Large trees in the treatment areas form potentially suitable nesting substrate as well.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Elanus leucurus</i> white-tailed kite	FP	Inhabits grasslands, agriculture fields, oak woodlands, savannah and riparian habitats in rural and urban areas. Typically nests in trees surrounded by open foraging habitat.	The nearest CNDDDB occurrence, (EONDX #6467, from 1988) occurs approximately 7.2 miles northeast of the treatment areas. The treatment areas contain grassland and riparian foraging habitat for this species as well as large trees for potential nesting habitat. eBird (2023) contains numerous checklists including this species from Sonoma County including some observations at the treatment areas. One individual of this species was observed foraging during a reconnaissance survey conducted March 22, 2023.	Possible
<i>Strix occidentalis caurina</i> northern spotted owl	FT ST	Inhabits coniferous forests from western British Columbia to the San Francisco Bay. In California owls inhabit Douglas fir mixed conifer and coastal redwood forests. Requires moderate to high canopy cover with sufficient large dead or dying trees/snags and abundant arboreal or semiarboreal prey base. Breeding begins in April; single-brooded.	The nearest OBSID occurrence, (OBSID #97911 from 2000) occurs within the treatment areas. The treatment areas contain Douglas fir mixed conifer and coastal redwood forests potentially utilized by this species for foraging and nesting (CDFW 2024d).	Possible
SENSITIVE AND LOCALLY RARE SPECIES				
AMPHIBIANS:				
<i>Dicamptodon ensatus</i> California giant salamander	SSC	Large, stocky terrestrial salamander. Occur primarily in humid coastal forests from Santa Cruz County to southern Mendocino and Lake Counties. Found near streams in damp conditions; aquatic adults and larvae inhabit cool, rocky streams and occasionally lakes and ponds (Zeiner et al. 1990).	The nearest CNDDDB occurrence, (EONDX #98399, from 2014) occurs approximately 0.17 miles west of the treatment areas along Stuart Creek. Stuart Creek is a perennial stream with a damp riparian zone with rocky sections which could provide potential habitat for this species.	Possible
<i>Rana boylei</i> pop 1 foothill yellow-legged frog - north coast DPS	SSC	A medium-sized frog that inhabits rocky, cascading streams in woodland, chaparral and coniferous forests from the Oregon border to San Luis Obispo County and the western foothills of the Sierra Nevada below 6000 feet.	The nearest CNDDDB occurrence, (EONDX #98121, from 2014) occurs approximately 0.19 miles west of the treatment along Stuart Creek. Stuart Creek contains rocky, cascading sections within the treatment areas and provides potential habitat for this species.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Taricha rivularis</i> red-bellied newt	SSC	Stream or river-dwellings newt of coastal woodlands and redwood forest. Known from Sonoma County north to Humboldt County and inland to Lake County with a disjunct population occurring in the Stevens Creek watershed of Santa Clara County.	The nearest CNDDDB occurrence, (EONDX #104544, from 1977) occurs within the treatment areas. The treatment areas contain habitat elements potentially suitable for this species including redwood forest, mixed evergreen forest and Stuart Creek, a perennial stream. Multiple individuals of this species were observed during a reconnaissance survey conducted March 22, 2023.	Present
BIRDS:				
<i>Ammodramus savannarum</i> grasshopper sparrow	SSC	An inconspicuous sparrow that inhabits moderately open grasslands and prairies with patchy bare ground, cultivated fields and forest clearings with short to moderately tall grasses and scattered shrubs (Vickery 2020, Baicich and Harrison 2005, Shuford and Gardali 2008). Areas with native bunchgrasses are important features in southern California (Shuford and Gardali 2008). Breeds from min-March through August; double or treble-brooded (Baicich and Harrison 2005, Shuford and Gardali 2008).	The nearest CNDDDB occurrence, (EONDX #97889, from 2011) occurs approximately 4.2 miles southwest of the treatment areas. Grassland located on the western portion of the treatment areas form potential breeding habitat for this species.	Possible
<i>Asio otus</i> long-eared owl	BCC SSC	Most slender and nocturnal of the large owls. Occurs in a wide range of habitats including desert oases, riparian thickets, and dense coniferous woodlands. Roosts near tree trunks in dense cover during the day; hunts in open fields and marshes by night, primarily for small mammals. Nests in cavities and nests abandoned by other animals (Alsop 2001).	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present within forested and riparian habitat in the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Aythya americana</i> redhead	SSC	Inhabits freshwater lakes, ponds, and marshes with abundant submerged vegetation, particularly during the winter months. Commonly found in coastal regions, including the San Francisco Bay, Salton Sea, and southern coastal wetlands, as well as in interior valleys. While primarily a winter visitor in the state, some populations also nest in northeastern California's marshy wetlands. Prefers areas with a mix of open water and dense emergent vegetation, which provide shelter and feeding grounds (Shuford and Gardali 2008).	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present within and adjacent to aquatic habitat in the treatment areas.	Possible
<i>Circus hudsonius</i> northern harrier	BCC SSC	Inhabits both freshwater and saltwater marshes and adjacent upland grasslands. Nests on the ground in tall grasses in grasslands and meadows.	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present adjacent to aquatic habitat in the treatment areas.	Possible
<i>Contopus cooperi</i> olive-sided flycatcher	BCC SSC	Inhabits open canopy late-successional coniferous forests and eucalyptus groves in foothill canyons. Prefers edge habitats and openings often associated with clear-cuts, burned areas, slashings, and fragmented forests. Nests in willows, alders, oaks and eucalyptus trees within lowlands. California distribution ranges from the Oregon border south along the Modoc Plateau, Sierra Nevada, coastal mountain ranges west of the Central Valley to Santa Barbara County, and in the higher elevations of the Transverse and Peninsular ranges (Shuford and Gardali 2008). Breeds from May to late August; single-brooded (Baicich & Harrison 2005, Shuford and Gardali 2008).	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present within forested habitat in the treatment areas.	Possible
<i>Coturnicops noveboracensis</i> yellow rail	BCC SSC	Highly secretive, breeds in northeastern California in wet meadows and sedge marshes. Winters in tidal marshes in the greater San Francisco Bay Area.	The nearest CNDDDB occurrence, (EONDX #106955, from 1898) occurs approximately 4.6 miles southeast of the treatment areas. The southwestern portion of the treatment areas includes some wet meadow habitat potentially suitable for this species.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Cypseloides niger</i> black swift	BCC SSC	Uncommon summer resident of North America. Requires shady, sheltered vertical cliffs for nesting; often nests on rock behind waterfalls. Nesting is from mid-June to mid-September.	The nearest CNDDDB occurrence, (EONDX #59707, from 2003) occurs approximately 0.94 miles east of the treatment areas. The northern portion of the treatment areas includes vertical cliffs and waterfalls along Stuart Creek potentially suitable as nesting habitat for this species.	Possible
<i>Lanius ludovicianus</i> loggerhead shrike	BCC SSC	Inhabits shrublands and open woodlands associated with grasslands with areas bare ground and impaling sites such as thorny vegetation, multi-stemmed plants or barbed wire.	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present within and shrub and grassland habitat in the treatment areas.	Possible
<i>Progne subis</i> purple martin	SSC	The largest swallow species occurring in North America, the purple martin ranges along the west coast from Big Sur along the Central California Coast north to British Columbia, Canada (Brown 1997). Inhabits montane forests and lowland coastal and inland foothills. Martins exhibit high site fidelity and are secondary-cavity nesters, utilizing woodpecker cavities in trees and dead snags, but also nest in Saguaro cacti, cliffs and man-made structures such as bridges, power poles, street lamps, and bird boxes (Brown 1997). Breeding occurs from April through August and may be double- or triple-brooded (Brown 1997, Baicich and Harrison 2005). Purple martins feed exclusively on flying insects caught on the wing typically 50-150 m (~160-500 ft) above the ground (Brown 1997).	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present within forested habitat in the treatment areas.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Setophaga petechia</i> yellow warbler	SSC	Yellow warblers of the "yellow" group of subspecies breed from the northern limits of the boreal forest in Alaska and Canada south along the Pacific Coast to northern Baja California; the central Sierra Nevada, northern Nevada the southern Rocky Mountain region; the southern Great Plains, central Arkansas, northern Alabama and Georgia; and along the eastern seaboard to Virginia. There is also a disjunct population in the Sierra Madre Occidental of Mexico (Lowther et. al. 1999). Nests in dense, shrubby thickets dominated by willows along water courses and wet meadows. They build nests in a variety of riparian trees, most commonly willows (<i>Salix spp.</i>) and cottonwoods (<i>Populus spp.</i>). Occasionally yellow warblers breed in mixed-conifer forests with shrubby understories (Shuford and Gardali 2008). Breeds from April to late July and is sometimes double-brooded (Baicich & Harrison 2005, Shuford and Gardali 2008).	While there are no CNDDDB occurrences of the species within the assessment area, suitable habitat for the species may be present within forested and riparian habitat in the treatment areas.	Possible
MAMMALS:				
<i>Antrozous pallidus</i> pallid bat	SSC WBWG-H	Inhabits rocky terrain in open areas in lowlands, foothills and mountainous areas near water throughout California below 2,000 meters. Roost in caves, rock crevices, mines, hollow trees, buildings and bridges in arid regions in low numbers (<200). Active from March-November; migrates in some areas, but may hibernate locally.	The nearest CNDDDB occurrence, (EONDX #66688, from 1935) occurs approximately 5.8 miles southeast of the treatment areas. The forested portions of the treatment areas and caves near the waterfall along Stuart Creek provide potential roosting habitat. The grassland habitats located within the treatment areas also provide potential foraging habitat for this species.	Possible

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SPECIES NAME COMMON NAME	LISTING STATUS ¹	HABITAT REQUIREMENTS & ADDITIONAL NOTES	HABITAT SUITABILITY & LOCAL DISTRIBUTION	POTENTIAL FOR OCCURRENCE
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	SSC WBWG-H	An obligate cave rooster and moth specialist. Inhabits caves and mines, but may also use bridges, buildings, rock crevices and tree hollows in coastal lowlands, cultivated valleys and nearby hills characterized by mixed vegetation throughout California below 3,300 meters. Exhibits high site fidelity and is highly sensitive to disturbance. Forages along edge habitats near water; may travel long distances during foraging bouts.	The nearest CNDDDB occurrence, (EONDX #93632, from 1938) occurs approximately 10.5 miles southwest of the treatment areas. The riparian zone of Stuart Creek forms potential foraging habitat for this species. The forested portions of the treatment areas and caves near the waterfall along Stuart Creek provide potential roosting habitat. Although this species favors caves and mines for roosting, it may roost in basal hollows of very large trees, which may be present within the treatment areas as well.	Possible
<i>Lasiurus frantzii</i> western red bat	SSC WBWG-H	Primarily associated with intact riparian habitat. Roosts individually in foliage within trees along riparian areas, orchards and suburban areas. Favors cottonwoods, willows, sycamores, and walnut trees (Bolster 2005).	While there are no CNDDDB occurrences of the species within the assessment area, the species may occur throughout the treatment areas.	Possible
<i>Taxidea taxus</i> American badger	SSC	Inhabits open areas with friable soils within woodland, grassland, savannah and desert habitats. A fossorial mammal that preys predominately on ground squirrels (<i>Ammospermophilus</i> and <i>Spermophilus</i> spp.) and pocket gophers (<i>Thomomys</i> spp.).	The nearest CNDDDB occurrence, (EONDX #46525, from 1951) occurs approximately 11.4 miles southeast of the treatment areas. The Sonoma Valley lacks CNDDDB occurrence data for this species and iNaturalist (iNaturalist 2024) also lacks observations from this area for American badger. The treatment areas contains limited grassland habitat potentially suitable for this species. The soil is rocky and appears mostly non-friable whereas this species uses friable soils for hunting and excavating dens. Despite the sub-optimal habitat, this species wanders widely and may possibly enter the treatment areas.	Possible

¹Federal Listings:
FE: Federally Endangered
FT: Federally Threatened

FC: Federal Candidate for Listing
BCC: Federal Bird of Conservation Concern

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State Listings:

ST: State Threatened

SC: State Candidate for Listing

SSC: State Species of Special Concern

FP: State Fully Protected Species

WL: CDFW Watch List Species

Other Designations:

WBWG-H: Western Bat Work Group High Priority Species; the species is considered imperiled or at high risk of imperilment.

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Impact BIO-1

Assessment and Findings

Initial vegetation treatments and maintenance treatments could result in direct and indirect adverse effects on the 41 special status plant species with the potential to occur in the treatment areas. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments, as the same treatment activities would occur. Species designated as “not expected” or determined to have no potential to occur within the treatment areas (Appendix C) require no further mitigation and will not be targeted for surveys under SPR BIO-7.

SPR BIO-7 would apply to all treatment activities, including maintenance treatments. Pursuant to SPR BIO-7, protocol-level surveys for special status plants would not be required if the target special status plant species are herbaceous annual species, stump sprouting species, or geophyte species, and the treatment may be carried out during the dormant season for that species or when the species has completed its annual life cycle provided the treatment would not alter habitat in a way that would make it unsuitable for the special status plants to reestablish following treatment, or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts of special status plants.

Conclusion

Of the 41 special status plants with the potential to occur in the treatment areas, six are federally or state listed. All of the 41 special status plants with the potential to occur have California Rare Plant Ranks as indicated in Table 4.5-1.

Twenty of these are annual herbaceous species, seven are geophytic perennial species, and ten are herbaceous perennials. Impacts on annual herbaceous, geophytic, and perennial herbaceous species would be avoided by implementing non-ground-disturbing treatment activities during the dormant season (e.g., when the plants have no aboveground parts or have completed their annual life cycle and set seed). If treatments cannot be completed in the dormant season and would be implemented during the growing period of these species, protocol surveys (per SPR BIO-7) and avoidance of any identified plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below.

The remaining four special status plants with the potential to occur in the treatment areas are non-stump sprouting shrubs. Rincon Ridge manzanita (*Arctostaphylos stanfordiana* subsp. *decumbens*), Rincon Ridge ceanothus (*Ceanothus confusus*), holly-leaved ceanothus (*Ceanothus purpureus*) Sonoma ceanothus (*Ceanothus sonomensis*) These species could not be avoided in the same manner as herbaceous annual, geophytic perennial, or perennial herbaceous species and protocol surveys (per SPR BIO-7) and avoidance of any identified plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below.

Where protocol-level surveys are required (per SPR BIO-7) and special status plants are identified during these surveys, Mitigation Measures BIO-1a and BIO-1b would be implemented to avoid loss of identified special status plants. Per 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 treatments would not occur unless a qualified biologist determines that the species would benefit from treatment in the occupied habitat area.

In the event that special status plants are identified during protocol-level surveys and cannot be avoided during project implementation, Mitigation Measure BIO-1c would be implemented. Under Mitigation Measure BIO-1c, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special status plants will be compensated. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing

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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 potential for treatment activities, including maintenance treatments, to result in adverse effects on special status plants was examined in the PEIR. This impact on special status plants is within the scope of the PEIR because the affected special status plant species were covered in the PEIR, and the initial treatment activities, maintenance treatment activities, and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. SPRs applicable to this impact are BIO-1, BIO-2, BIO-6, BIO-7, BIO-9, GEO-1, GEO-2, GEO-3, GEO-4, GEO-5, GEO-7, HYD-3, HYD-4, and HYD-5. This determination is consistent with the PEIR and this impact would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-2

Assessment and Findings

Potential adverse effects to special status wildlife species with suitable habitat within the project area due to mechanical treatments, manual treatments, prescribed herbivory, herbicides, and prescribed burning associated with the proposed project are discussed below. The proposed project could result in direct or indirect adverse effects on special status wildlife species and habitat suitable for these species within the treatment areas, as described in the following sections.

Crotch bumble bee (*Bombus crotchii*)

While Crotch's bumble bee (*Bombus crotchii*) was once thought to be extirpated from Sonoma County (Hatfield and Jepson 2021), recent verified observations of the species from Sonoma County on Bumble Bee Watch, a collaborative project between several universities and non-profit entities that accepts and vets bumble bee sightings submitted by the public (Bumble Bee Watch 2024), suggest that the treatment areas are still within the species' range. The nearest CNDDDB occurrence, (EONDX #98547, from 1910) occurs approximately 1.7 miles south of the treatment areas. The treatment areas include potentially suitable open grassland and scrub landcover types for the species.

The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicides) may have potential adverse effects on Crotch's bumble bee resulting from ground-disturbing activities, potentially injuring individual bees or damaging underground burrows or nests. Crotch's bumble bee may also be injured if present on vegetation during treatments. Additional potential adverse effects include the degradation of floral resources, herbicide exposure, and the possible loss of open habitat or nesting habitat in the form of stumps and logs. The potential for treatment activities to result in adverse effects on Crotch's bumble bee was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

In accordance to SPR Bio-1, no mitigation would be required for bumblebees if it is determined that adverse effects to these species can be avoided by physically avoiding suitable habitat. However, the species may be present within the treatment areas due to the presence of suitable habitat (woodland, scrub, and grassland containing sufficient floral resources within the ranges of the species) and therefore total avoidance of suitable habitat is not possible. Mitigation Measure BIO-2g would thereby be put into effect to the extent feasible, which includes treatment activities to be conducted in a patchy pattern so the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained. As a result, no more than 20% of grasslands will be burned during peak season for floral resources in a year to reduce impact to floral resources.

California Freshwater Shrimp (*Syncaris pacifica*)

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The treatment areas contain potentially suitable habitat for California freshwater shrimp within Stuart Creek, a perennial creek that runs through the treatment areas and appears to have high water quality, a requirement of the species. If present, the species is likely to favor portions of Stuart Creek with streambanks below 380 ft and structurally diverse pools.

The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicides) may have potential adverse effects on California freshwater shrimp through degradation of water quality or other impacts to aquatic features such as alterations to shade regimes, increased sedimentation, chemical runoff, and loss of aquatic habitat. The potential for treatment activities to result in adverse effects on California freshwater shrimp was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

In accordance with SPR BIO-1, no mitigation would be required for California freshwater shrimp if it is determined that adverse effects to this species can be avoided by physically avoiding suitable habitat. The treatment areas exclude aquatic features such as stream habitat used by California freshwater shrimp in accordance with SPR HYD-4. Aquatic habitat function for California freshwater shrimp would be maintained by the implementation of Watercourse and Lake Protection Zones (WLPZs) per SPR HYD-4 and measures specified by SPR BIO-4, including that only hand application of herbicides approved for use in aquatic environments will be allowed in riparian habitat and only during low-flow periods or when seasonal streams are dry. Because the proposed treatment avoids habitat that this species would potentially use, no mitigation is required for California freshwater shrimp. This determination is consistent with the PEIR and no impacts to California freshwater shrimp associated with the project are expected.

Steelhead – Central California Coast DPS (*Oncorhynchus mykiss irideus* pop. 8)

The treatment areas contain potentially suitable habitat for steelhead within Stuart Creek. Stuart Creek appears to have high water quality and is accessible to anadromous fish (NOAA 2016). Steelhead was documented in the CNDDDB within Stuart Creek in 2014 approximately 0.21 miles downstream of the treatment areas (CDFW 2024a).

The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicides) may have potential adverse effects on steelhead through degradation of water quality or other impacts to aquatic features such as alterations to shade regimes, increased sedimentation, chemical runoff, and loss of aquatic habitat. The potential for treatment activities to result in adverse effects on steelhead was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

In accordance with SPR BIO-1, no mitigation would be required for steelhead if it is determined that adverse effects to this species can be avoided by physically avoiding suitable habitat. The treatment areas exclude aquatic features such as streams potentially used by steelhead in accordance with SPR HYD-4. Aquatic habitat function for steelhead would be maintained by the implementation of WLPZs per SPR HYD-4 and measures specified by SPR BIO-4, including that only hand application of herbicides approved for use in aquatic environments will be allowed in riparian habitat and only during low-flow periods or when seasonal streams are dry. Because the proposed treatment avoids habitat that this species would potentially use, no further mitigation is required for steelhead.

California Red-legged Frog (*Rana draytonii*)

The California red-legged frog predominantly inhabits permanent water sources such as streams, lakes, marshes, natural and man-made ponds, and ephemeral drainages in valley bottoms and foothills up to 1,500 meters (4,921 feet) in elevation (Jennings and Hayes 1994, Bulger et al. 2003, Stebbins 2003). Adults breed in a variety of aquatic habitats, while larvae and metamorphs use streams, deep pools, backwaters of streams

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and creeks, ponds, marshes, sag ponds, dune ponds, and lagoons. Stock ponds are frequently used for breeding when they provide suitable hydroperiods, pond structure, vegetative cover, and are managed to control nonnative predators such as bullfrogs and exotic fish.

Upland habitat within the treatment areas may also be used by California red-legged frog, however the species is highly aquatic with little movement away from streamside habitats. Seasonal movements away from watercourses are typically associated with winter and spring rains (CWHR 2008). The nearest critical habitat for this species occurs approximately 3.89 miles southwest of the treatment areas near Sonoma Mountain.

Although at least one pond occurs in the treatment areas, the treatment areas lack ponded or slow-moving lotic habitat combined with aquatic vegetation sufficient to support California red-legged frog breeding habitat. However, this species may utilize pond and stream habitats within the treatment areas, such as Stuart creek, the two ephemeral streams, and vernal pools, as foraging habitat, movement corridors, and for other life history requirements.

The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicides) may have potential adverse effects on California red-legged frogs resulting from ground-disturbing activities, potentially displacing or injuring frogs or damaging occupied burrows. California red-legged frogs may also be at risk of being crushed by vehicles, equipment, or personnel if present during treatments. Indirect effects to the species could result from project-related noise, vibration, and visual disturbances caused by the presence of workers and machinery, which may disrupt essential behaviors such as foraging, breeding, or sheltering. Additional potential adverse effects on California red-legged frog through degradation of water quality or other impacts to aquatic features such as alterations to shade regimes, increased sedimentation, chemical runoff, and loss of aquatic habitat. The potential for treatment activities to result in adverse effects on California red-legged frog was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

In accordance with SPR BIO-1, no mitigation would be required for California red-legged frog if it is determined that adverse effects to this species can be avoided by physically avoiding suitable habitat. Proposed treatments include protections for aquatic features such as ponds or streams potentially used by California red-legged frog in accordance with SPR HYD-4. Aquatic habitat function for California red-legged frog would be maintained by the implementation of WLPZs per SPR HYD-4 and measures specified by SPR BIO-4, including that only hand application of herbicides approved for use in aquatic environments will be allowed in riparian habitat and only during low-flow periods or when seasonal streams are dry.

California red-legged frog will occasionally use upland habitat near aquatic features for migration and aestivation and therefore may be present outside of the 50-to-150-foot WLPZs created adjacent to all aquatic habitat within the treatment areas by the implementation of SPR HYD-4. Migration of California red-legged frog is highly correlated with seasonal rain. To avoid potential migrating California red-legged frogs, treatment activities within 300 feet of Class I & II watercourses will be timed to occur outside of the wet season, between May 1 and November 15. Additionally, in accordance with SPR BIO-2, crew members and contractors will receive training regarding biological resources from a qualified RPF or biologist familiar with the life history of California red-legged frog, so crews are aware of potential for California red-legged frog to occur within the treatment areas in addition to measures to reduce adverse effects.

If treatment activities must occur during the wet season:

In accordance with SPR BIO-10, a qualified RPF or biologist shall conduct focused or protocol-level surveys for California red-legged frog within suitable habitat that is not covered by the above take scenarios. The

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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. However, as stated in SPR BIO-10, if presence of California red-legged frog is assumed, then focused or protocol surveys may not be required.

If California red-legged frog is not detected, then no further mitigation for the species would be required. If California red-legged frog is observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to California red-legged frog by implementing Mitigation Measure BIO-2a. Mitigation Measure BIO-2a provides the project proponent with the option to either: (1) not implement treatment within the occupied habitat; or (2) implement treatment outside the sensitive period of the species' life history. Pursuant to Mitigation Measure BIO-2a, CDFW and USFWS 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. Consultation with CDFW and USFWS pursuant to Mitigation Measure BIO-2a would potentially allow for treatment to 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. If a California red-legged frog is discovered during treatment, all work would cease, and the individual would be left to leave on its own volition. If the frog will not or cannot leave on its own, a USFWS- and CDFW- approved and permitted biologist will be contacted to relocate the frog outside of the treatment areas.

If the project proponent cannot avoid mortality, injury or disturbance to California red-legged frog, then the project proponent will implement Mitigation Measure BIO-2c. Mitigation Measure BIO-2c states that the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment. Compensation may include: (1) Preserving existing habitat outside of the treatment areas in perpetuity; or (2) restoring or enhancing existing habitat within the treatment areas or outside of the treatment areas. In addition, the project proponent will prepare a Compensatory Mitigation Plan in accordance with Mitigation Measure BIO-2c that identifies the residual significant effects that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects.

The potential for treatment activities and maintenance treatments to result in adverse effects to California red-legged frog were examined in the PEIR, and through the implementation of the above measures, impacts to this species associated with the project will be less than significant and are consistent with those examined in the PEIR.

Other Special Status Amphibians

In addition to California red-legged frog, suitable habitat for three other special status amphibians is present within the treatment areas: California giant salamander (*Dicamptodon ensatus*), foothill yellow-legged frog – north coast DPS (*Rana boylei* pop 1), and red-bellied newt (*Taricha rivularis*). Suitable breeding habitat for these species is present within Stuart Creek, and the species may also utilize ephemeral streams and marsh habitat as aquatic dispersal and foraging habitat. Suitable upland dispersal and aestivation habitat is present in the mixed-conifer woodland, broad-leafed woodland, and grassland habitats adjacent to Stuart Creek where these species may utilize spaces under logs, bark, rocks, and other large objects for shade or refuge. All three species are known from CNDDDB occurrences either within Stuart Creek or the treatment areas, and red-bellied newt was observed by Nomad biologists during a reconnaissance survey of the Bouverie Preserve conducted March 22, 2023.

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In accordance with SPR BIO-1, no mitigation would be required for California giant salamander, foothill yellow-legged frog, or red-bellied newt if it is determined that adverse effects to these species can be avoided by physically avoiding suitable habitat. The treatment areas excludes aquatic features such as streams and riparian habitats potentially used by special status amphibians in accordance with SPR HYD-4. Aquatic habitat function for these species would be maintained by the implementation of WLPZs per SPR HYD-4 and measures specified by SPR BIO-4, including that only hand application of herbicides approved for use in aquatic environments will be allowed in riparian habitat and only during low-flow periods or when seasonal streams are dry. These species will also be covered by the above take scenarios.

California giant salamander, foothill yellow-legged frog, and red-bellied newt also use upland habitats near aquatic features for migration and aestivation and therefore may be present outside of the 50-to-150-foot WLPZs created adjacent to all aquatic habitat within the treatment areas by the implementation of SPR HYD-4. Therefore, the treatment areas for this project potentially overlaps habitat used by these species and the total avoidance of suitable habitat for special status amphibians is not possible.

Potential adverse effects to special status amphibians as a result of the proposed project are similar to those described above for California red-legged frog and include ground-disturbing activities potentially displacing or injuring individuals or damaging occupied burrows, individuals being crushed by vehicles, equipment, or personnel if present during treatments. Indirect effects to special status amphibians could result from construction-related noise, vibration, and visual disturbances caused by the presence of workers and machinery, which may disrupt essential behaviors such as foraging, breeding, or sheltering. Additional potential adverse effects to special status amphibians are possible through degradation of water quality or other impacts to aquatic features such as alterations to shade regimes, increased sedimentation, chemical runoff, and loss of aquatic habitat. The potential for treatment activities to result in adverse effects on special status amphibians was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

In accordance with SPR BIO-10, a qualified RPF or biologist should conduct focused or protocol-level surveys for special status amphibians within suitable habitat potentially used by California giant salamander, foothill yellow-legged frog, and/or red-bellied newt prior to treatments. 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. However, as stated in SPR BIO-10, if presence of California giant salamander, foothill yellow-legged frog, or red-bellied newt is assumed, then focused or protocol surveys may not be required.

If special status amphibians are not detected, then no further mitigation for these species would be required. If special status amphibians are observed during focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the observed species by implementing Mitigation Measure BIO-2b. Under Mitigation Measure BIO-2b, the project proponent will minimize adverse effects to the observed species and avoid mortality, injury, or disturbance to individuals by (for all treatment activities except prescribed burning) establishing a no-disturbance buffer around occupied sites.

Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance. Buffers will generally be a minimum of 100 feet unless site conditions indicate a smaller buffer would be sufficient for protection. 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 site is no longer occupied, or that 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 occupied site during treatment. If treatment activities

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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 California giant salamander, foothill yellow-legged frog, and red-bellied newt life histories (e.g., outside the breeding season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. The biologist will determine the period of time within which prescribed burning could occur that will avoid or minimize mortality, injury, or disturbance to special status amphibians. The project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate limited operating periods.

For all treatment activities, the project proponent will design treatment activities to maintain the habitat function. 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 of special status amphibians. 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 special status amphibians. Identification and treatment of these features will be based on the life histories of California giant salamander, foothill yellow-legged frog, and red-bellied newt and habitat requirements of these species and the most current, commonly accepted science. 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 special status amphibian habitats and life histories 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 for special status amphibians because the loss of special status amphibians would substantially reduce the number or restrict the range of these species. If the project proponent determines the impact on special status amphibians would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special status amphibians 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.

If the project proponent cannot avoid mortality, injury or disturbance to California giant salamander, foothill yellow-legged frog, or red-bellied newt, then the project proponent will implement Mitigation Measure BIO-2c. Mitigation Measure BIO-2c states that the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment. Compensation may include: (1) Preserving existing habitat outside of the treatment areas in perpetuity; or (2) restoring or enhancing existing habitat within the treatment areas or outside of the treatment areas. In addition, the project proponent will prepare a Compensatory Mitigation Plan in accordance with Mitigation Measure BIO-2c that identifies the residual significant effects that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that special status amphibians would benefit from treatment in the occupied habitat area even though some individuals of the species named above may be killed, injured, or disturbed during treatment activities. For a

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treatment to be considered beneficial to special status wildlife not federally or state-listed (including California Fully Protected 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 similar treatment. If it is determined that treatment activities would be beneficial to special status amphibian, 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.

The potential for treatment activities and maintenance treatments to result in adverse effects to special status amphibians were examined in the PEIR, and through the implementation of the above measures, impacts to special status amphibians associated with the project will be less than significant and are consistent with those examined in the PEIR.

Northwestern Pond Turtle (*Emys marmorata*)

The northwestern pond turtle is a habitat generalist, and has been observed in slow-moving rivers and streams (e.g., in oxbows), lakes, reservoirs, permanent and ephemeral wetlands, stock basins, and sewage treatment plants. This species prefers aquatic habitat with refugia such as undercut banks and submerged vegetation (Holland 1994), and require emergent basking sites such as mud banks, rocks, logs, and root wads to thermoregulate their body temperature (Holland 1994, Bash 1999). At least one pond occurs in the southwestern section of the treatment areas. This pond appears potentially ephemeral in some years and appears to lack potential basking habitat for northwestern pond turtle. Despite the sub-optimal habitat for northwestern pond turtle, this pond may attract northwestern pond turtle. Additionally, slower moving sections of Stuart Creek may also form potential aquatic habitat for northwestern pond turtle; seasonally available aquatic habitat may be present in the two ephemeral streams and marsh habitat within the treatment areas. Upland areas adjacent to the pond and Stuart Creek are therefore potential nesting habitat for northwestern pond turtle.

The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicides) may have potential adverse effects on northwestern pond turtle resulting from ground-disturbing activities, potentially displacing or injuring individual turtles or damaging occupied nests. Northwestern pond turtle may also be at risk of being crushed by vehicles, equipment, or personnel if present during treatments. Indirect effects to the species could result from construction-related noise, vibration, and visual disturbances caused by the presence of workers and machinery, which may disrupt essential behaviors such as foraging, breeding, or sheltering. Additional potential adverse effects on northwestern pond turtle through degradation of water quality or other impacts to aquatic features such as alterations to basking sites, shade regimes, increased sedimentation, chemical runoff, and loss of aquatic habitat. The potential for treatment activities to result in adverse effects on northwestern pond turtle was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

In accordance with SPR BIO-1, no mitigation would be required for northwestern pond turtle if it is determined that adverse effects to northwestern pond turtle can be avoided by physically avoiding suitable habitat. The treatment areas exclude aquatic features such as ponds potentially used by northwestern pond turtle in accordance with SPR HYD-4. Aquatic habitat function for northwestern pond turtle would be maintained by the implementation of WLPZs per SPR HYD-4 and measures specified by SPR BIO-4, including that only hand application of herbicides approved for use in aquatic environments will be allowed in riparian habitat, and only during low-flow periods or when seasonal streams are dry. In accordance with SPR BIO-2, crew members and contractors will receive training regarding biological resources from a qualified RPF or biologist familiar with the life history of northwestern pond turtle.

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Northwestern pond turtles regularly utilize upland terrestrial habitats, most often during the summer and winter, especially for oviposition (females), overwintering, seasonal terrestrial habitat use, and overland dispersal (Holland 1994). Northwestern pond turtle may be present up to 1,640 feet from suitable aquatic habitat (Reese and Welsh 1997), and even with the implementation of SPR HYD-4, which would establish WLPZs ranging from 50 to 150 feet adjacent to all aquatic habitat within the treatment areas, total avoidance of suitable upland habitat for northwestern pond turtle is not possible.

In accordance with SPR BIO-10, a qualified RPF or biologist should conduct focused or protocol-level surveys for northwestern pond turtle within suitable habitat prior to treatment. 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. However, as stated in SPR BIO-10, if presence of northwestern pond turtle is assumed, then focused or protocol surveys may not be required.

If northwestern pond turtle is not detected, then no further mitigation for the species would be required. If northwestern pond turtle is observed during focused or protocol-level surveys or assumed present, then Mitigation Measure BIO-2a will be implemented as described above for California-red legged frog, and treatments will either avoid occupied habitat or be conducted outside of the sensitive period of the species' life history. If a northwestern pond turtle is discovered during treatment, all work would cease, and the individual would be left to leave on its own volition and the situation would be further assessed in conjunction with a qualified biologist. If the frog will not or cannot leave on its own, a USFWS- and CDFW- approved and permitted biologist will be contacted to relocate the frog outside of the treatment areas. If the project proponent cannot avoid mortality, injury or disturbance to northwestern pond turtle, then the project proponent will implement Mitigation Measure BIO-2c.

In accordance with SPR BIO-2, crew members and contractors will receive training regarding biological resources from a qualified RPF or biologist familiar with the life history of northwestern pond turtle, so crews are aware of potential for northwestern pond turtle to occur within the treatment areas in addition to measures to reduce adverse effects.

Special Status Birds

Potential Project-Related Effects for All Special status Bird Species

The treatment areas contain potential suitable nesting habitat for 14 species of special status birds: tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), northern spotted owl (*Strix occidentalis caurina*), grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), redhead (*Aythya americana*), northern harrier (*Circus hudsonius*), olive-sided flycatcher (*Contopus cooperi*), yellow rail (*Coturnicops noveboracensis*), black swift (*Cypseloides niger*), loggerhead shrike (*Lanius ludovicianus*), and purple martin (*Progne subis*). Tricolored blackbird may potentially nest within tall emergent vegetation present in aquatic features throughout the treatment areas. Tall trees throughout the treatment areas may provide suitable nesting habitat for golden eagle, Swainson's hawk, and white-tailed kite, especially lone trees adjacent to open foraging ground, while trees within Douglas fir mixed conifer and coastal redwood forest in the treatment areas may provide suitable nesting habitat for northern spotted owl and purple martin. Grasshopper sparrow and loggerhead may nest in open shrub and grassland habitat. Potentially suitable nesting habitat for redhead, northern harrier, and yellow rails can be found in wet meadow and other habitat adjacent to aquatic features, while black swift may nest on vertical cliffs and waterfalls along Stuart Creek. Long-eared owl and olive-sided flycatcher may nest in various forested habitat within the treatment areas, but likely prefer riparian habitat. In addition to suitable nesting habitat, the above species may forage within the treatment areas.

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The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicide) may have potential adverse effects on nesting special status birds through noise and physical disturbance by flames, smoke, heavy machinery, vehicles, construction activities, increased human presence, and removal of vegetation. This may result in short-term impacts such as failure to breed, nest abandonment, reduced fecundity and decreased survivorship or alter behavior in ways that result in injury, mortality and reduced foraging success. The potential for treatment activities, including maintenance treatments, to result in adverse effects on special status birds was examined in the PEIR.

In accordance with SPR BIO-10, if work takes place outside of the nesting season (February 1 to August 31), no further mitigation for special status birds listed above is necessary, except for white-tailed kite and northern harrier, which can breed through the end of September. If work outside the nesting season is not possible, nesting surveys by a qualified biologist would be required, following established protocols. If active special status bird species nests are discovered during surveys, Mitigation Measure BIO-2b would be put into effect and a 100-ft no-disturbance buffer would be established around occupied nests.

For Swainson's hawk, or white-tailed kite, Mitigation Measure BIO-2a would be put into effect, and a 500-ft no-disturbance buffer would be established around occupied nests. For tricolored blackbird, golden eagle, or northern spotted owl, no-disturbance buffers would 100 feet, 1 mile, and 0.25 miles, respectively, per CDFW guidance. No mechanical or manual treatment would occur within these established buffers. Habitat function for golden eagle, Swainson's hawk, white-tailed kite, and northern spotted owl would be maintained because, with the exception of diseased trees or those posing an immediate safety hazard, treatment activities would not result in removal of trees (i.e., conifers, hardwoods) or snags greater than 24 inches DBH, which would be the most likely features to be used by these species. Habitat function for tricolored blackbird will be maintained through implementation of SPR HYD-4.

Pursuant to Mitigation Measure BIO-2a, this determination for tricolored blackbird, golden eagle, Swainson's hawk, white-tailed kite, and northern spotted owl must be made in consultation with CDFW. Therefore, if Mitigation Measure BIO-2a is required for maintenance or treatment activities, CDFW would be contacted for input on the determination that habitat function would be maintained for tricolored blackbird, golden eagle, Swainson's hawk, white-tailed kite, and northern spotted owl. To maintain habitat function for other special status birds and common nesting birds, trees or snags greater than 24 inches DBH will not be removed during treatment to preserve nesting habitat provided by more mature trees. This would also maintain habitat for canopy-nesting avian species per SPR BIO-12.

Retention of trees or snags greater than 24 inches DBH and known nest trees through SPR BIO-12 would likely not be sufficient for habitat retention for northern spotted owl. Northern spotted owl requires moderate to high canopy cover, generally greater than 60% (Clark 2007), with sufficient large dead or dying trees/snags and an abundant arboreal or semiarboreal prey base. If it is determined that northern spotted owl is present, then 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 habitat function is maintained. In the event a northern spotted owl is observed, consultation with CDFW may result in additional requirements such as maintenance of certain levels of percent canopy cover and tree age class diversity. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Special Status Bats

Three special status bat species have the potential to occur within the treatment areas based on range, habitat, and recorded occurrences in the region: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus frantzii*). These bat species may occur in any habitat

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within the treatment areas, however, large trees, snags, caves, rock crevices, mines, and relatively undisturbed parts of human-made structures are generally the most suitable roost locations. Treatment areas. Trees throughout the treatment areas may provide habitat for all the above bat species in the form of exfoliating bark, hollows, and snags.

The proposed project (prescribed burning, mechanical treatment, and manual treatment) may have potential adverse effects on roosting special status bat species through fire, smoke, noise, physical disturbance by heavy machinery, vehicles, construction activities, increased human presence, and the loss of roosting habitat by the removal of trees. This may result in the permanent removal of roost features and displacement of individual bats utilizing them. The potential for treatment activities to result in adverse effects on special status bats was examined in the PEIR.

If work activity is to occur during the bat maternity season (April 1 to December 31), focused surveys for roosting bats would be conducted throughout suitable habitat before the start of work, per SPR BIO-10. If special status bat roosts are discovered as a result of focused surveys, Mitigation Measure Bio-5 would be put into effect and an appropriately sized no-disturbance buffer would be established around active bat roosts within which no prescribed burning, mechanical or manual treatment would occur. Through the implementation of these measures, impacts to special status bat species associated with the project will be less than significant and are consistent with those examined in the PEIR.

American Badger (*Taxidea taxus*)

The treatment areas include grassland habitat which appears marginally suitable for American badger because the soil is rocky and non-friable. Although American badger prefers friable soils for hunting and excavating dens, this species ranges widely and could potentially use what appears to be sub-optimal habitat. Therefore, American badger may possibly enter the treatment areas from nearby more suitable habitat. While the Sonoma Valley lacks CNDDDB occurrences and iNaturalist (iNaturalist 2024) observations of American badger, there are no reliable data on the species' current distribution or status (Bolster 1998) and the species may be present in the area.

The proposed project (prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicide) may have potential adverse effects on American badger through fire, smoke, noise, physical disturbance by heavy machinery, vehicles, construction activities, increased human presence, and the loss of denning and foraging habitat by soil compaction and a potentially reduced number of small mammal prey items. This may result in the destruction of burrows, temporary reduction in the amount of prey, and displacement of individual badgers. The potential for treatment activities to result in adverse effects on American badger was examined in the PEIR and will be avoided or mitigated through the implementation of the following SPRs and Mitigation Measures.

If work activity is to occur during the denning season (March to August), focused surveys for badger dens would be conducted throughout suitable habitat before project initiation, per SPR BIO-10. If American badger dens are discovered as a result of focused surveys, Mitigation Measure BIO-2b would be put into effect and an appropriately sized no-disturbance buffer would be established around active American badger dens within which no prescribed burning, mechanical or manual treatment would occur. To maintain habitat function for American badgers, existing burrows greater than 6 inches in diameter will not be disturbed during treatment to preserve denning habitat. Per SPR BIO-11, if temporary fencing is required for prescribed herbivory, a wildlife-friendly design will be used to minimize risk to dispersing American badger. If an American badger is discovered during treatment, all work would cease, and the individual would be left to leave on its own volition and the situation would be further assessed in conjunction with a qualified biologist. Through the implementation of these measures, impacts to American badger associated with the project will be less than significant and are consistent with those examined in the PEIR.

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Conclusion

The potential for treatment activities to result in adverse effects on special status wildlife was examined in the PEIR. Potential impacts to special status wildlife due to the treatments associated with the project are consistent in scope and intensity with those in the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR. Special status wildlife species with potential to be adversely affected were considered in the PEIR. SPRs applicable to this impact are BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11, BIO-12, GEO-1, GEO-2, HYD-4. The impacts of the proposed project are consistent with the PEIR and would not constitute substantially more severe significant impacts than what was covered in the PEIR.

Impact BIO-3

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on sensitive habitats, including those designated as a Sensitive Natural Community (SNC). 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, including maintenance treatments, to result in adverse effects on sensitive habitats was examined in the PEIR.

Potentially Occurring SNC

Review of relevant data resources and expertise with local flora identified a total of 38 potentially occurring SNC in the treatment areas, including nineteen herbaceous communities, seven shrubland communities, and twelve forest and/or woodland communities, listed below. No treatments will occur within chaparral types.

Table 4.5-4: Sensitive Natural Communities Present or Potentially Occurring in the Treatment Areas

SENSITIVE NATURAL COMMUNITY	RARITY RANK	OCCURRENCE POTENTIAL
<u>HERBACEOUS COMMUNITIES</u>		
Ashy ryegrass - Creeping wildrye turfs <i>Leymus cinereus</i> - <i>Leymus triticoides</i>	S3	Possible
Bushy spikemoss mats <i>Selaginella (bigelovii, wallacei)</i>	S3	Possible
California brome - blue wildrye prairie <i>Bromus carinatus</i> - <i>Elymus glaucus</i>	S3	Possible
Coastal tufted hair grass - Meadow barley - California oatgrass meadow <i>Deschampsia cespitosa</i> - <i>Hordeum brachyantherum</i> - <i>Danthonia californica</i>	S3	Possible
Coast Range stonecrop draperies <i>Sedum spathulifolium</i>	S3	Possible
Common monkey flower - thistle - hedgenettle seeps <i>Mimulus guttatus</i> - <i>Cirsium</i> spp. - <i>Stachys</i> spp.	S3	Possible
Field horsetail - scouringrush horsetail - variegated scouringrush wet meadow <i>Equisetum (arvense, variegatum, hyemale)</i>	S3S4	Possible
Goldenaster patches <i>Heterotheca (oregona, sessiliflora)</i>	S3	Possible

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SENSITIVE NATURAL COMMUNITY	RARITY RANK	OCCURRENCE POTENTIAL
Idaho fescue - California oatgrass grassland <i>Festuca idahoensis</i> - <i>Danthonia californica</i>	S3	Possible
Iris-leaf rush seeps <i>Juncus (oxymeris, xiphioides)</i>	S2?	Possible
Mats of floating pennywort <i>Hydrocotyle (ranunculoides, umbellata)</i>	S3?	Possible
Needle grass - Melic grass grassland <i>Nassella</i> spp. - <i>Melica</i> spp.	S3S4	Possible
Quillwort beds <i>Isoetes (bolanderi, echinospora, howellii, nuttallii, occidentalis)</i>	S3?	Possible
Slough sedge - Water-parsley - Small-fruited bulrush marsh <i>Carex obnupta</i> - <i>Oenanthe sarmentosa</i> - <i>Scirpus microcarpus</i>	S3	Possible
Small-fruited bulrush marsh <i>Scirpus microcarpus</i>	S2	Possible
Soft and western rush - Sedge marshes <i>Juncus (effusus, patens)</i> - <i>Carex (pansa, praegracilis)</i>	S3S4	Possible
White-root beds <i>Carex barbarae</i>	S2	Possible
White-tip clover swales <i>Trifolium variegatum</i>	S2?	Possible
SHRUBLAND COMMUNITIES		
Bush monkeyflower scrub <i>Diplacus aurantiacus</i>	S3?	Possible, but treatments not occurring in chaparral
Canyon live oak - Interior live oak chaparral <i>Quercus wislizeni</i> - <i>Quercus chrysolepis</i> (shrub)	S3S4	Possible, but treatments not occurring in chaparral
Eastwood manzanita chaparral <i>Arctostaphylos glandulosa</i>	S3	Possible, but treatments not occurring in chaparral
Hairy leaf - woolly leaf ceanothus chaparral <i>Ceanothus (oliganthus, tomentosus)</i>	S3	Possible, but treatments not occurring in chaparral
Hazelnut scrub <i>Corylus cornuta</i> var. <i>californica</i>	S2?	Possible, but treatments not occurring in chaparral
Hoary, common, and Stanford manzanita chaparral <i>Arctostaphylos (canescens, manzanita, stanfordiana)</i>	S3	Possible, but treatments not occurring in chaparral
Shining willow groves <i>Salix lucida</i> ssp. <i>lasiandra</i>	S3.2	Possible, but treatments not occurring in chaparral
Western Labrador-tea thickets <i>Rhododendron columbianum</i>	S3	Possible, but treatments not occurring in chaparral
FOREST AND/OR WOODLAND COMMUNITIES		

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SENSITIVE NATURAL COMMUNITY	RARITY RANK	OCCURRENCE POTENTIAL
Madrone forest <i>Arbutus menziesii</i>	S3	Present
Bigleaf maple forest and woodland <i>Acer macrophyllum</i>	S3	Possible
Box-elder forest and woodland <i>Acer negundo</i>	S3	Possible
California bay forest and woodland <i>Umbellularia californica</i>	S3	Present
California buckeye groves <i>Aesculus californica</i>	S3	Possible
California sycamore - coast live oak riparian woodlands <i>Platanus racemosa</i> - <i>Quercus agrifolia</i>	S3	Possible
Oregon ash groves <i>Fraxinus latifolia</i>	S3.2	Possible
Oregon white oak woodland and forest <i>Quercus garryana</i> (tree)	S3	Present
Redwood forest and woodland <i>Sequoia sempervirens</i>	S3	Present
Tanoak forest <i>Notholithocarpus densiflorus</i>	S3.2	Possible
Valley oak riparian forest and woodland <i>Quercus lobata</i>	S2	Possible
Valley oak woodland and forest <i>Quercus lobata</i>	S3	Present

Assessment and Findings

During the reconnaissance-level survey pursuant to SPR BIO-1, madrone forest, California bay forest and woodland, Oregon white oak woodland and forest, redwood forest and woodland, and valley oak woodland and forest were determined to be present within the treatment areas. Based on the identification of potential sensitive natural occurrences occurring within the treatment areas by a qualified biologist as required by SPR BIO-3, the following sensitive natural communities may also be present within grassland habitats in the treatment areas: ashy ryegrass- creeping wildrye turfs, bushy spikemoss mats, California brome – blue wildrye prairie, Coastal tufted hair grass – meadow barley – California oatgrass meadow, Coast Range stonecrop draperies, common monkeyflower – thistle hedgenettle seeps, field horsetail - scouringrush horsetail - variegated scouringrush wet meadow, goldenaster patches, Idaho fescue - California oatgrass grassland, Iris-leaf rush seeps, mats of floating pennywort, needle grass - Melic grass grassland, quillwort beds, slough sedge - water-parsley - small-fruited bulrush marsh, small-fruited bulrush, soft and western rush - sedge marshes, white-root beds, and white-tip clover swales. Based on the same analysis, the following sensitive natural communities may be present in shrubland habitats: bush monkeyflower scrub, canyon live oak - interior live oak chaparral, eastwood manzanita chaparral, hairy leaf - woolly leaf ceanothus chaparral, hazelnut scrub, hoary, common, and Stanford manzanita chaparral, shining willow groves, western Labrador-tea thickets. Sensitive natural communities within chaparral habitats will not be impacted, as no treatments will occur within chaparral. Similarly, the following sensitive natural communities may be present in forest and woodland habitats: bigleaf maple forest and woodland, box-elder forest and woodland, California buckeye groves, California sycamore - coast live oak riparian woodlands, Oregon ash groves, tanoak forest, valley oak riparian forest and woodland. All oak woodland present or possibly present in the

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treatment areas are also considered sensitive habitats under the Oak Woodlands Conservation Act and Public Resources Code Section 21083.4 and require additional consideration pursuant to this code.

Conclusion

Pursuant to SPR BIO-3, a qualified biologist would conduct a survey following the CDFW “Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities” prior to the start of treatment activities (CDFW 2018b). Because other sensitive natural communities may be present in addition to those described above and in table 4.5-4, sensitive natural communities and oak woodlands, within the treatment areas would be mapped by a qualified biologist or botanist during this survey, as required under SPR BIO-3.

After mapping required by SPR BIO-3, WLPZs would then be established around riparian habitat and other aquatic habitat per SPR HYD-4. Adjacent to all Class I and Class II streams within the treatment areas, WLPZs established would range from 50 to 150 feet wide, and would be of sufficient size to avoid degradation of downstream beneficial uses of water adjacent to Class III streams. In addition, SPR BIO-4 requires that treatments in riparian habitats retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation. Treatments in riparian habitat would also be limited to removal of uncharacteristic fuel loads (e.g., dead or dying vegetation, invasive plants), and the project proponent is required to notify CDFW prior to any treatments in riparian habitat. SPR-BIO-4 also stipulates that in riparian habitat, 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.

Project activities would occur in a manner that retains vegetation types with characteristics qualifying as SNC or oak woodlands to the extent possible. If impacts to SNC or oak woodlands cannot be avoided, Mitigation Measure BIO-3a would apply in these areas. Under Mitigation Measure BIO-3a, treatment actions would be done in a manner that restores natural fire regimes as defined in the *Manual of California Vegetation*, Appendix 2, Table A2 (Sawyer et al. 2009), or return vegetation composition and structure to their natural condition; no fuel breaks would be created in SNC with rarity ranks of S1 (critically imperiled) or S2 (imperiled); to the extent possible, fuel breaks will not remove more than 20% relative cover of native vegetation; and only shaded fuel breaks would be created in oak woodlands. Under Mitigation Measure Bio-3a, prescribed herbivory will be timed to occur when non-target vegetation is not susceptible to damage as 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.

If habitat function of affected SNC or oak woodlands cannot be maintained through implementation of Mitigation Measure BIO-3a, then implementation of Mitigation Measure BIO-3b (Mitigation Measure BIO-3c for riparian habitat) would be required, and unavoidable losses of these resources would be compensated for through restoration or preservation of these vegetation types within or outside of the treatment areas.

This potential impact on sensitive habitats is within the scope of the PEIR because the affected sensitive natural communities and oak woodlands were analyzed in the PEIR, and the treatment activities and intensity of disturbance as a result of implementing vegetation treatments and maintenance treatments are consistent with those analyzed in the PEIR. SPRs applicable to this impact are BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, GEO-1, GEO-3, GEO-4, GEO-5, GEO-6, GEO-7, HAZ-1, HAZ-5, HAZ-6, and HYD-4, and HYD-5. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-4

Assessment and Findings

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Review and survey of project-specific biological resources as part of SPR BIO-1 has determined that the treatment areas contain segments of perennial, intermittent, and ephemeral streams that could be protected under federal and/or state government jurisdiction. Streams within the treatment areas include the perennial Stuart Creek and two ephemeral tributaries flowing east from Stuart Creek before leaving the treatment areas. A small pond is also located in the extreme southwest portion of the treatment areas, and seasonal wetlands may be present within vernal pool habitat also located in the southwest portion of the treatment areas.

Adjacent to all Class I and Class II streams within the treatment areas, WLPZs ranging from 50 to 150 feet would be established per SPR HYD-4. Adjacent to all Class III streams, WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established. In addition, SPR HYD-4 will establish no-disturbance buffers of 300 feet around all ponds and pools within the treatment areas. All aquatic habitat within WLPZs will therefore be avoided by manual, mechanical, herbicide, prescribed burning, and herbicide treatments. SPR-BIO-4 also stipulates that 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.

Other seasonal wetlands, springs, and seeps may also be present in the treatment areas, the precise locations of which may have not been mapped or demarcated in the field. Under Mitigation Measure BIO-4, a qualified RPF or biologist would delineate the boundaries of these features, establish an appropriate buffer (25 feet minimum), and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). Mitigation Measure BIO-4 also allows for broadcast burning within delineated buffers if a qualified RPF or biologist determines that no special status species are present in the wetland habitat, wetland habitat function would be maintained, and that the broadcast burn is within the normal fire return interval for the wetland vegetation types present. No fire ignition (nor associated use of accelerants) will occur within buffers or WLPZs.

Conclusion

The potential impact on state or federally protected wetlands within the treatment areas is within the scope of the PEIR and are consistent with and would not constitute a substantially more significant impact than those considered in the PEIR. This determination applies to initial vegetation and maintenance treatments, as initial treatments and maintenance treatments involve the same treatment activities. Biological resource SPRs that apply to project impacts under Impact BIO-4 are BIO-1, BIO-2, BIO-3, BIO-9, GEO-1, GEO-2, GEO-3, GEO-4, GEO5, GEO-6, GEO-7, HYD-1, HYD-4, HAZ-5, HAZ-6, HYD-1, HYD-4, and HYD-5.

Impact BIO-5

Assessment and Findings

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (*i.e.*, linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat fragments). In general, studies suggest that habitat corridors provide connectivity for and are used by wildlife, and as such, are an important conservation tool (Beier and Noss 1998). According to Beier and Loe (1992), wildlife habitat corridors should fulfill several functions. They should maintain connectivity for daily movement, travel, mate-seeking, and migration; plant propagation; genetic interchange; population movement in response to environmental change or natural disaster; and recolonization of habitats subject to local extirpation.

The suitability of a habitat as a wildlife movement corridor is related to, among other factors, the habitat corridor's dimensions (length and width), topography, vegetation, exposure to human influence, and the species in question (Beier and Loe 1992). Species utilize movement corridors in several ways. "Passage

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species” are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers. Passage species use corridors for brief durations, such as for seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet any of the habitat requirements necessary for a passage species’ everyday survival. Large herbivores, such as deer, and medium-to-large carnivores, such as coyotes, bobcats and mountain lions, are typically passage species. “Corridor dwellers” are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and that use corridors for a greater length of time. As such, wildlife movement corridors must fulfill key habitat components specific to a species’ life history requirements in order for them to survive (Beier and Loe 1992). In general, however, the suitability and/or utility of the landscape – specifically, of the landscape as corridor habitat – is best evaluated on a species-level (Beier and Noss 1998).

According to the habitat modeling by the CDFW’s Terrestrial Connectivity Data and Resources Branch (CDFW 2019), the Bouverie Preserve includes Areas of Conservation Emphasis (ACE) 2.5 sq/mile hexagons labeled as “Irreplaceable and Essential Corridors” (Hexagon IDs: 21705, 21778) and “Conservation Planning Linkages” (Hexagon ID 21631).

Areas designated as “Irreplaceable and Essential Corridors” have been identified as “areas where surrounding landuse and barriers are expected to funnel, or concentrate, animal movement. Channelized areas may represent the last available connections between two areas, making them high priority for conservation”. Areas designated as “Conservation Planning Linkages” are described as those that “may represent the best connection between core natural areas to maintain habitat connectivity”. Furthermore, the reconnaissance survey conducted in fulfillment of SPR BIO-1 has determined that habitat within the treatment areas is suitable for use as a wildlife movement corridor. Habitat within the treatment areas also has potential to contain wildlife nurseries sites, though none were identified in the field (e.g., rookery trees with whitewash, deer fawning habitat), or bat roosts. The treatment areas also contains riparian corridor habitat along Stuart Creek.

Conclusion

The potential for treatment activities to result in direct or indirect effects on wildlife movement corridors and nursery sites was examined in the PEIR. Treatments for the proposed project may have a temporary effect on wildlife movement during treatments due to disturbance from heavy equipment and elevated levels of human activity, but due to the relatively small footprint of the treatment areas and the nature of the proposed treatment activities, existing functionality as a wildlife movement corridor (or potential nursery site) will be retained, as habitat will not be altered on a landscape scale and no barriers to movement will be introduced as a result of treatment. Wildlife would be able to continue utilizing the treatment areas for movement immediately after treatments are complete, and furthermore, the mechanical and manual clearing of brush would likely promote increased use of the treatment areas by improving habitat and increasing wildfire resilience. Habitat function would also be retained as trees and snags with a DBH greater than 8 inches will not be removed during treatment. Potential direct or indirect effects on wildlife nurseries and the functionality of the treatment areas as a wildlife movement corridor due to treatments associated with the project are consistent with and within the scope of those examined in the PEIR because the treatment activities and intensity of disturbance as a result of implementing vegetation treatments and maintenance treatments are consistent with those analyzed in the PEIR. SPRs applicable to this impact are BIO-1, BIO-2, BIO-4, BIO-10, and HYD-4. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-6

Assessment and Findings

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Habitat suitable for nesting birds and other common wildlife species is present throughout the treatment areas. Treatments associated with the proposed project could result in direct or indirect adverse effects resulting in reduction of habitat and thus abundance of common wildlife. These impacts were examined in the PEIR. For any bird species that are nesting within the treatment areas, noise and movement of personnel and equipment that exceeds normal background conditions within the treatment areas could result in short-term impacts such as failure to breed, nest abandonment, reduced fecundity and decreased survivorship. Continuous or persistent disturbance may alter the bird's behavior in ways that result in injury, mortality and reduced foraging success, such as the temporary loss of habitat due to avoidance of areas that have suitable habitat but intolerable levels of disturbance.

In accordance with SPR BIO-12, if work takes place outside of the nesting season (February 1 to August 31), no further mitigation for common nesting bird species is necessary. If work activity is to occur during the nesting season, SPR BIO-12 would be implemented and focused surveys for common nesting birds would be conducted by a qualified biologist throughout suitable habitat before the start of treatment activities. If no active nests are observed, then no further mitigation would be necessary; however, if active nests, i.e., nests with eggs or young present, are found within the treatment areas, non-disturbance buffers will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the nesting pair's tolerance to disturbance, and the type/duration of potential disturbance. No work would occur within the non-disturbance buffers until the young have fledged as determined by a qualified biologist.

Most wildlife species will be able to leave the project site on their own once work starts and therefore should not be adversely affected during the proposed treatments. There is a chance that less mobile species that reside in leaf litter, such as California slender salamander, could be impacted during treatments, but such species are relatively abundant, and their individual loss would not be considered significant.

Conclusion

The potential for adverse effects on common wildlife, including nesting birds, was examined within the PEIR. The extent and duration of treatments associated within the proposed project are within the scope of those covered in the PEIR because the treatment activities and intensity of disturbance from implementing vegetation treatments and maintenance treatments are consistent with those analyzed in the PEIR. SPRs applicable to this impact are BIO-1, BIO-2, BIO-10, BIO-11, and BIO-12. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than those covered in the PEIR.

Impact BIO-7

Assessment and Findings

Three local ordinances relevant to biological resources were identified and analyzed for possible conflicts with the project: the Sonoma County Tree Protection Ordinance, the Sonoma County Heritage or Landmark Tree Ordinance, and the California Oak Woodlands Preservation Act.

Sonoma County Tree Protection Ordinance:

The Sonoma County Tree Protection Ordinance protects trees greater than 9 inches dbh from being removed as part of development projects in unincorporated areas of Sonoma County and requires that development projects submit site plans depicting all trees protected by the act (Sonoma County 1989).

Sonoma County Heritage and Landmark Tree Ordinance:

The Sonoma County Heritage and Landmark Tree Ordinance requires permits for the removal of designated heritage or landmark trees in unincorporated areas of Sonoma County. Trees or groves of trees are

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designated by the Sonoma County board of supervisors on the basis of historical interest, significance, or unique characteristics such as size, age, rarity, shape, or location (Sonoma County 1986).

California Oak Woodlands Preservation Act

The California Oak Woodlands Preservation Act provides legal protection for the state's oak woodlands for all California Environmental Quality Act (CEQA) processes within a county's jurisdiction. Under the California Oak Woodlands Preservation Act, if impacts to oak woodlands (defined as habitat with >10% canopy cover comprised of native *Quercus* trees with a diameter at breast height >5 inches) are unavoidable, a registered professional forester must perform all CEQA oak woodland characterizations and participate in determining thresholds of significance and developing site-specific mitigation measures. Alternatives available to mitigate impacts to oak woodlands include use of conservation easements to conserve oak woodlands, plant and maintain for seven years an appropriate number of trees, contribute funds to the Oak Woodlands Conservation Fund, and/or other mitigation measures developed by the county.

Conclusion

The project will not conflict with the Sonoma County Tree Protection ordinance because the project qualifies for exemption under the ordinance's Stewardship and Resource Management Exemption as a resource conservation, restoration, or enhancement project; furthermore no trees greater than 8 inches will be removed as part of project treatments. It is also unlikely that any trees removed as part of treatments would qualify as a heritage or landmark tree under the Sonoma County Heritage and Landmark Tree Ordinance, and furthermore this ordinance grants exemptions for removal of trees when removal is authorized by CAL FIRE or where a tree is in a hazardous, dangerous, or unhealthy condition so as to endanger life, property, or other trees. The project will not conflict with the California Oak Woodlands Preservation Act as oak woodlands are included as a sensitive habitat in the CALVTP and as such, impacts to oak woodland were analyzed and SPRs BIO-1, BIO-2, BIO-3, BIO-6, BIO-9, and Mitigation Measures BIO-3a and 3b would be implemented as stated in Impact BIO-3. Therefore, there would be no conflict with local ordinances as a result of implementation of treatment activities.

Per SPR AD-3, all treatments will be designed and implemented 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. Therefore, the potential for the project to conflict is within the scope considered in the PEIR and would not constitute a substantially more severe significant impact than was covered in the PEIR.

Impact BIO-8

Conclusion

Implementation of the proposed vegetation treatment and maintenance treatments would not result in a conflict with adopted habitat conservation plans or natural community conservation plans because the treatment areas are not within the plan area of any adopted habitat conservation plan or natural community conservation plan. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Biological Resource Impacts

NA

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Geology, Soils, Paleontology, and Mineral Resources

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

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

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

Impact GEO-1

There is a potential for proposed treatment activities to cause erosion or loss of topsoil. The proposed treatment activities and associated impacts are within the scope analyzed in the PEIR. The PEIR analysis determined the impacts are less than significant. SPR's GEO 1-8, AQ-3, and AQ-4 will be implemented, if necessary, for insurance there are no significant impacts to top soil erosion. This impact is less than significant.

Impact GEO-2

While there are steep slopes within the project area the proposed treatments and their associated impacts are within the scope of that analyzed in the PEIR. SPR's AQ-3, GEO-1, GEO-3 GEO-4, GEO-7, GEO-8, will be implemented where necessary which will make the impact less than significant.

New Geology, Soils, Paleontology, and Mineral Resource Impacts

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The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

Greenhouse Gas Emissions

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs	LTS	Impact GHG-1, pp. 3.8-10 – 3.8-11	Yes	NA	NA	LTS	No	Yes
Impact GHG-2: Generate GHG Emissions through Treatment Activities	PSU	Impact GHG-2, pp. 3.8-11 – 3.8-17	Yes	AQ-3	GHG-2	PSU	No	Yes

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

New GHG Emissions Impacts: Would the treatment result in other impacts to GHG emissions that are not evaluated in the CalVTP PEIR?	☐ 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

Impact GHG-1

The proposed treatment activities and their associated impacts regarding greenhouse gases are within the scope analyzed in the PEIR. In the PEIR it was found that the CALVTP is aligned with specific goals and strategies lined out in the *California Forest Carbon Plan*, the *2017 Scoping Plan*, and *Draft California 2030 Natural and Working Lands Climate Change Implementation Plan*. These impacts are less than significant. SPR GH-1 does not apply because the property is not registered as carbon offset property.

Impact GHG-2

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Use of prescribed fire, mechanical equipment, and vehicles will result in greenhouse gas emissions. Proposed treatment activities and their associated impacts are within the scope of that analyzed in the PEIR. SPR AQ -3 and mitigation measure GHG-2 will be implemented to reduce the potential impacts, however, impacts to greenhouse emissions remains potentially significant and unavoidable.

New Impacts Related to GHG Emissions

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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Energy Resources

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

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

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

Impact ENG-1

Proposed treatment activities will have impacts on energy resources. The proposed treatments are within the scope analyzed in the PEIR that determined the impacts would be less than significant and unavoidable.

New Energy Resource Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

Project-Specific Analysis and Addendum

Hazardous Materials, Public Health and Safety

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact HAZ-1, pp. 3.10-14 – 3.10-15	Yes	HAZ-1, HAZ-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-5-8	NA	LTS	No	Yes
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	PS	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	NA	NA	HAZ-3	LTSM	Yes

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

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

Impact HAZ-1

The Proposed treatment activities require hazardous materials such as fuels and related accelerants. The proposed treatments and their associated impacts are within the scope examined in the PEIR. The analysis in the PEIR determined that impacts are less than significant.

Impact HAZ-2

Herbicide application is proposed to control invasive weeds and woody resprouts in a limited capacity. No aerial spraying would occur. The proposed herbicide application methods and amount are within the scope

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analyzed in the PEIR. With the implementation of SPR's HAZ-5 through HAZ-8 the impacts were determined to be less than significant.

Impact HAZ-3

Some of the proposed treatment activities could cause soil disturbance and potentially expose workers to hazardous materials if said materials are present on site. Mitigation measure HAZ-3 has been implemented. No known hazardous sites are within the project areas based on organization records and a DTSC EnviroStor web search. This impact is less than significant.

New Hazardous Materials, Public Health and Safety Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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Hydrology and Water Quality

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

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Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Quality Control Plan Through the Ground Application of Herbicides				HAZ-6, HAZ-7				
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5, p. 3.11-31	Yes	HYD-4, HYD-6, GEO-1, GEO-2, GEO-5	NA	LTS	No	Yes

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

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

Impact HYD-1

Proposed prescribed fire treatments have the potential to have adverse impacts on water quality and violate water quality standards in adjacent water ways. These potential impacts were analyzed in the PEIR for prescribed fire activities. Proposed prescribed fire treatments are within the scope of those analyzed in the PEIR. Prescribed fire treatments are designed to be low intensity. Implementation of SPR's HYD-1, HYD-4, GEO-4, GEO-6, AQ-3 will reduce the impact less than significant.

Impact HYD-2

Proposed mechanical and manual treatments have the potential to have adverse impacts on water quality and violate water quality standards in adjacent water ways. These potential impacts were analyzed in the PEIR for mechanical and manual treatment activities. All proposed mechanical and manual treatments and their associated impacts are within the scope of the PEIR. Implementation of SPR's HYD-1, HYD-2, HYD-4-6, GEO-1, GEO-2, GEO-4, GEO-5, GEO-7, GEO-8, HAZ-1, HAZ-2 will reduce the impacts to less than significant.

Impact HYD-3

Proposed prescribed herbivory treatments have the potential to have adverse impacts on water quality and violate water quality standards in adjacent water ways. These potential impacts were analyzed in the PEIR for

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prescribed herbivory treatment activities. All proposed prescribed herbivory treatments and their associated impacts are within the scope of the PEIR. Implementation of SPR's HYD-1, HYD-3, HYD-4, GEO-4, GEO-6 will reduce the impacts to less than significant.

Impact HYD-4

Proposed herbicide treatments have the potential to have adverse impacts on water quality and violate water quality standards in adjacent water ways. These potential impacts were analyzed in the PEIR for herbicide treatment activities. All proposed herbicide treatments and their associated impacts are within the scope of the PEIR. Implementation of SPR's HYD-1, HYD-4, HYD-5, BIO-4, HAZ-5, HAZ-6, HAZ-7 as well as applying herbicides in accordance with manufactures directions will reduce the impacts to less than significant.

Impact HYD-5

Proposed treatment activities could directly or indirectly modify existing drainage patterns by causing disturbance and erosion. Proposed treatment activities and their associated impacts are within the scope of the PEIR and analysis of these activities were determined to be less than significant if SPR's HYD-4, HYD-6, GEO-1, GEO-2, and GEO-5 are implemented.

New Hydrology and Water Quality Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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Land Use and Planning, Population and Housing

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	LTS	Impact LU-1, pp. 3.12-13 – 3.12-14	No	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	No	NA	NA	NA	NA	NA

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

New Land Use and Planning, Population and Housing Impacts: Would the treatment result in other impacts to land use and planning, population and housing that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact LU-1

The proposed treatment activities have the potential to conflict with local land use plans, and regulations. Treatment activities and their associated impact are within the scope of the PEIR. Implementation of SPR AD-3 requires Audubon Canyon Ranch complies with local plans, policy, and ordinances. This would reduce this impact to less than significant.

Impact LU-2

NA

New Land Use and Planning, Population and Housing Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general

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landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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Noise

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1, pp. 3.13-9 – 3.13-12; Appendix NOI-1	No	None	NA	NA	NA	NA
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	No	None	NA	NA	NA	NA

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

New Noise Impacts: Would the treatment result in other noise-related impacts that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact NOI-1

No proposed treatment activities exceed the threshold of significance for this impact.

Impact NOI-2

No proposed treatment activities exceed the threshold of significance for this impact.

New Noise Impacts

NA

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Recreation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	LTS	Impact REC-1 pp. 3.14-6 – 3.14-7	No	None	NA	NA	NA	NA

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

New Recreation Impacts: Would the treatment result in other impacts to recreation that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion	
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐	

Discussion

Impact REC-1

No recreational areas will be impacted.

New Recreation Impacts

NA

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Transportation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Section 3.15.2; Impact TRAN-1 pp. 3.15-9 – 3.15-10	Yes	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-1 TRAN-1	NA	NA	NA	NA
Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP	PSU	Impact TRAN-3 pp. 3.15-11 – 3.15-13		NA	AQ-1	PSU	No	Yes

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

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

Impact TRAN-1

Proposed treatments have the potential to impact traffic operations. Namely the use of prescribed fire on the western end of the project area that is directly adjacent to HWY 12. Depending on smoke impacts and traffic levels it could require traffic control measures. The proposed treatment activities and potential impact are within the scope of the PEIR. Implementation of AD-3 and TRAN-1 reduce the potential impacts to less than significant.

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Impact TRAN-2

Proposed prescribed fire treatments have the potential to impact Hwy 12. Proposed prescribed fire treatments and their associated impacts are within the scope of the PEIR. Implementation of SPR's AD-3, HYD-1, and TRAN-1 will reduce the impact to less than significant. Specifically, TRAN-1 will be implemented for prescribed fire treatments in the lower western portion of the preserve that is adjacent to HWY 12.

Impact TRAN-3

Proposed treatment activities have the potential to contribute to a net increase in VMT. Proposed treatment activities and their associated impacts are within the scope analyzed in the PEIR. Implementation of SPR AQ-1 will reduce the severity of this impact. This impact is determined to be potentially significant and unavoidable.

New Transportation Impacts

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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Public Services, Utilities and Service Systems

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	LTS	Section 3.16.1 pp. 3.16-2 – 3.16-3; Impact UTIL-1 p. 3.16-9	Yes	NA	NA	LTS	No	Yes
Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	PSU	Section 3.16.1 pp. 3.16-3 – 3.16-5; Impact UTIL-2 pp. 3.16-10 – 3.16-12	No	NA	None	NA	NA	NA
Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	LTS	Section 3.16.2 pp. 3.16-6 – 3.16-7; Impact UTIL-2 p. 3.16-12	No	NA	NA	NA	NA	NA

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

New Public Services, Utilities and Service System Impacts: Would the treatment result in other impacts to public services, utilities and service systems that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact UTIL-1

Proposed prescribed fire treatments could potential require water usage for the operational period to maintain containment and/or meet ecological objectives. This use of water would be minimal and was examined in the PEIR for its potential impact. The amount of water use anticipated has a less than significant impact.

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Impact UTIL-2

Biomass generated by proposed treatment activities will not be transported off site. All biomass shall be chipped, burned or lopped and scattered on site.

Impact UTIL-3

NA

New Impacts to Public Services, Utilities and Service Systems

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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Wildfire

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	LTS	Section 3.17.1; Impact WIL-1 pp. 3.17-14 – 3.17-15	Yes	HAZ-2 through 4	NA	LTS	No	Yes
Impact WIL-2: Expose People or Structures to Substantial Risks Related to Post-Fire Flooding or Landslides	LTS	Section 3.17.1; Impact WIL-2 pp. 3.17-15 – 3.17-16	Yes	AQ-3, GEO-1 through 5, GEO-8	NA	LTS	No	Yes

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

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

Impact WIL-1

Proposed treatment activities have the potential to risk wildfire ignition as well as prescribed fire escaping its control lines. The proposed activities and their associated impacts are within the scope of the PEIR. Based on the analysis in the PEIR implementation of SPR's HAZ-1, HAZ-2, HAZ-3, and HAZ-4 will reduce the potential impact to less than significant.

Impact WIL-2

Steep slopes occur throughout the project area. The potential impact of proposed treatments are within the scope of those analyzed in PEIR. With the implementation of SPR's AQ-3, GEO-1, GEO-2, GEO-3, GEO-4, GEO-5, and GEO-8 potential impacts were determined to be less than significant.

New Impacts to Wildfire

The proposed treatment area includes land that is outside of the CALVTP treatable landscape thus represents a change to the geographic scope presented in the PEIR. However, areas within the geographic extent of the treatable landscape are directly adjacent to these areas and both share vegetation type and general

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landscape condition. Areas outside of the treatable landscape within the project area do not represent any new impacts and thus are within the scope of the PEIR.

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