PROJECT-SPECIFIC ANALYSIS AND ADDENDUM TO THE CalVTP PROGRAM EIR

Jenner Headlands Preserve Vegetation Treatment Project

Prepared for:

THE WILDLANDS CONSERVANCY

Coastal Conservancy

The Wildlands Conservancy and the State Coastal Conservancy

March 2023

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Prepared for:

The Wildlands Conservancy
PO Box 94
Jenner CA, 95450

Contact:

Luke Farmer
Regional Director
Luke.F@WildlandsConservancy.org

and the

State Coastal Conservancy
1515 Clay Street 10th Floor
Oakland, CA 94612

Contact:

Morgan Wright
Project Manager
Morgan.Wright@scc.ca.gov

Prepared by:

Ascent
455 Capitol Mall, Suite 300
Sacramento, CA 95814

Contact:

Allison Fuller
Project Manager
Allison.Fuller@AscentEnvironmental.com

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LIST OF ABBREVIATIONS

Board	Board of Forestry and Fire Protection
CAAQS	California ambient air quality standard
CalVTP	California Vegetation Treatment Program
CCH	Consortium of California Herbaria
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSWRCB	California State Water Resources Control Board
CWHR	California Wildlife Habitat Relationships
dB	decibel
dbh	diameter at breast height
DOC	California Department of Conservation
DPS	Distinct Population Segment
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
FEC	Fawcett Environmental Consulting
GHG	greenhouse gas
HCP	habitat conservation plan
IPaC	Information for Planning and Consultation
LRA	local responsibility area
MMRP	mitigation monitoring and reporting program
NAAQS	national ambient air quality standard
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NOA	naturally occurring asbestos
NWIC	Northwest Information Center

PRC	public resources code
Preserve	Jenner Headlands Preserve
Program EIR	program environmental impact report
Project	Jenner Headlands Preserve Vegetation Treatment Project
PSA	Project-Specific Analysis
RPF	registered professional forester
SOD	Sudden Oak Death
SPR	standard project requirements
SR 1	State Route 1
SR 116	State Route 116
SR	State Route
SRA	state responsibility area
SWRCB	State Water Resources Control Board
THP	timber harvest plan
USDA	US Department of Agriculture
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
VegCAMP	Vegetation Classification and Mapping Program
VMT	vehicle miles travelled
WLPZ	watercourse and lake protection zone
WUI	wildland-urban interface

1 INTRODUCTION

1.1 PROJECT OVERVIEW AND DOCUMENT PURPOSE

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

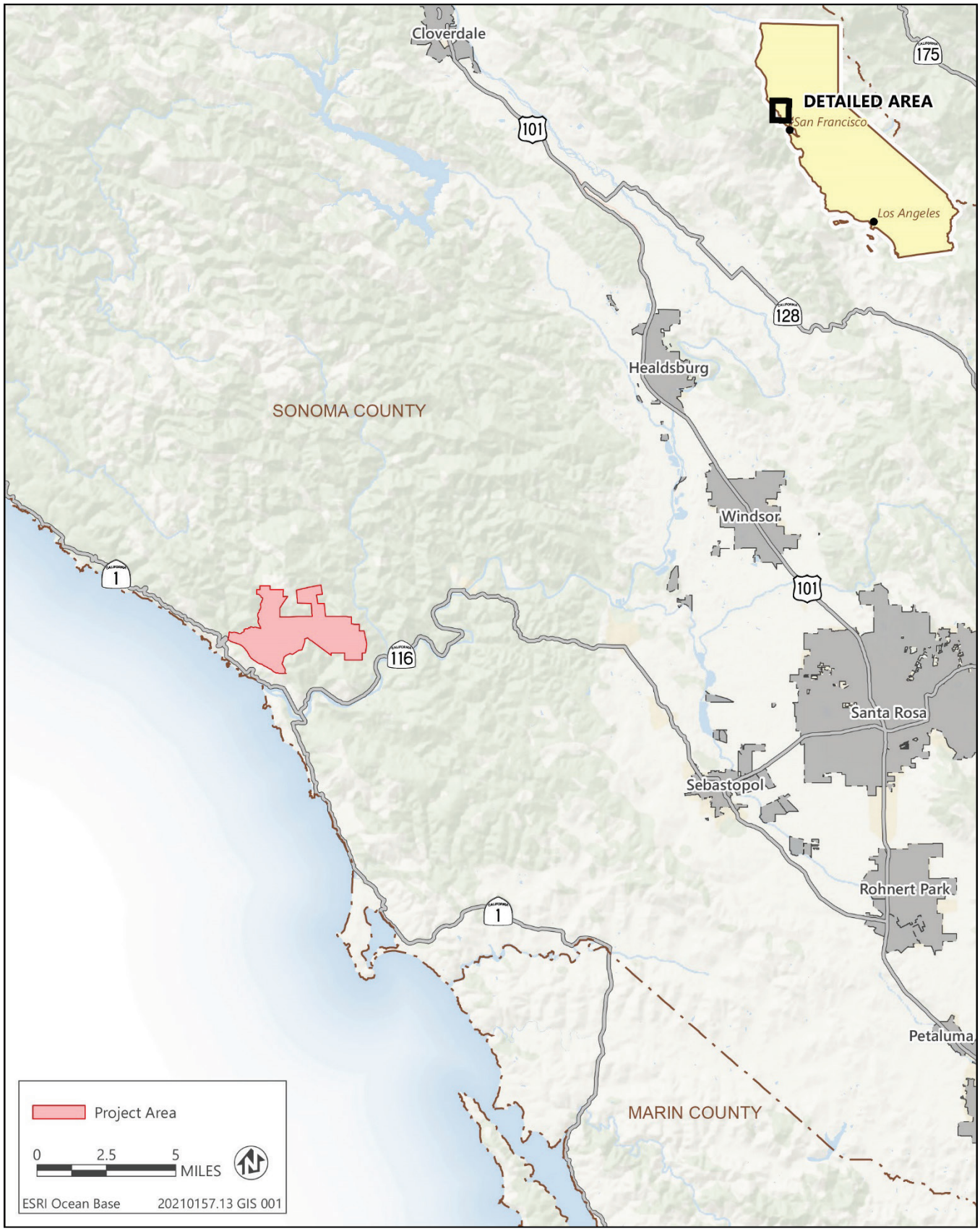
This PSA/Addendum for The Wildlands Conservancy's proposed vegetation treatment project is being prepared under the Board's technical assistance program to provide CEQA compliance for public agency approvals pertaining to vegetation treatment on the Jenner Headlands Preserve, as well as serve as an example PSA/Addendum for other agencies seeking to use the CalVTP Program EIR to accelerate approval of their own vegetation treatment projects.

1.1.1 Proposed Project

The Wildlands Conservancy proposes to implement vegetation treatments on up to 4,843 acres of land (proposed project) in Sonoma County (Figure 1-1). The proposed treatment types (i.e., ecological restoration, fuel breaks) and the treatment activities (i.e., prescribed burning, mechanical treatments, manual treatments, prescribed herbivory) are consistent with those evaluated in the CalVTP Program EIR. Maintenance treatments would involve the same vegetation treatment types and activities used in the original treatment. The California State Coastal Conservancy is considering an authorization of grant funds to The Wildlands Conservancy in 2023 to facilitate implementation of initial treatments on 796 acres within the 4,843-acre project area.

1.1.2 Agency and Organization Roles

This document is being prepared to comply with CEQA for the implementation of vegetation treatments that require a discretionary action by a state or local agency within the Jenner Headlands Preserve (Preserve). The CEQA lead agency is the California State Coastal Conservancy, which is considering an authorization of funding for initial treatments on 796 acres within the 4,843-acre project area. This PSA/Addendum may be relied upon for CEQA compliance in the future by other agencies, acting in a lead or responsible agency role, with a discretionary approval pertaining to the activities and area covered herein, including for public funding through other sources or future State Coastal Conservancy grants. In this PSA, The Wildlands Conservancy is referred to as the "implementing entity" reflecting its role as the lead implementer of treatments and landowner and manager of the Preserve.



Sources: Data received from The Wildlands Conservancy in 2022; adapted by Ascent in 2022

Figure 1-1 Regional Location

1.1.3 Purpose of This PSA/Addendum

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

An Addendum to an EIR is appropriate where a previously certified EIR has been prepared and some changes or revisions to the project are proposed, or the circumstances surrounding the project have changed, but none of the changes or revisions would result in new or substantially more severe significant environmental impacts, consistent with CEQA Section 21166 and CEQA Guidelines Sections 15162, 15163, 15164, and 15168. In this case, there are no changed circumstances, but the proposed revision or change in the project, compared to the Program EIR, are the inclusion of areas outside of the CalVTP treatable landscape and a revision to an SPR, which is integrated into the Program itself.

The PSA checklist (refer to Section 4, "Project-Specific Analysis") includes the criteria to support an Addendum to the CalVTP Program EIR for the inclusion of proposed project area outside the CalVTP treatable landscape. The checklist evaluates each resource in terms of whether the later treatment project, including the "changed condition" of additional geographic area, would result in significant impacts that would be substantially more severe than those covered in the Program EIR and/or would result in any new impacts that were not covered in the Program EIR.

This document serves as both a PSA and an Addendum to the CalVTP Program EIR for review by the California State Coastal Conservancy and analysis under CEQA with regard to its provision of grant funding for The Wildlands Conservancy's proposed treatments within and outside the treatable landscape covered by the Program EIR, including the proposed SPR revision. It will provide environmental information to the California State Coastal Conservancy in its consideration of approval of a 2023 grant funding allocation and implementation of the work by The Wildlands Conservancy, its partners, or its contractor(s). This PSA/Addendum may also be used for CEQA compliance for related approvals by other local or state agencies, if required, including grant funding in future years. The project-specific mitigation monitoring and reporting program, which identifies the CalVTP standard project requirements (SPRs) and mitigation measures applicable to the proposed project is presented in the Mitigation Monitoring and Reporting Program (MMRP) for the Jenner Headlands Preserve Vegetation Treatment Project, attached as Attachment A. The SPRs identified in the MMRP have been incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation.

PROPOSED PROJECT REVISIONS

Project Area Outside the CalVTP Treatable Landscape

Among the criteria for determining if a treatment project is within the scope of the CalVTP Program EIR is whether it is located in the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the Program EIR). While most of the project area would be inside, portions of the project area extend outside of the treatable landscape described in the CalVTP Program EIR. In total, these areas outside the treatable landscape encompass approximately 613 acres of the 4,843-acre project area; however, they are dispersed in small sections of the project area (refer to Figure 2-1). The scattered array of acres outside of the CalVTP treatable landscape is due to the method by which the CalVTP treatable landscape was digitally developed and the resultant degree of mapping resolution. Using desktop applications to apply buffers around geographic and topographic features and demarcate jurisdictional boundaries (i.e., SRA and Local Responsibility Area or LRA), the method resulted in some treatable landscape areas that are shown on maps to be disjoined and scattered and some that are inheld LRA areas surrounded by SRA. If the areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or at least substantially similar, landscape conditions as the adjacent areas within the treatable landscape, the environmental analysis in the Program EIR would be applicable.

Proposed Revision to CalVTP SPRs

While the proposed treatment types and treatment activities are consistent with the CalVTP, The Wildlands Conservancy has deemed that certain requirements of CalVTP SPRs are infeasible, are not warranted to maintain the impact significance conclusions in the Program EIR, and, if implemented as presented in the Program EIR, would prevent The Wildlands Conservancy from meeting treatment objectives. Because SPRs are part of the CalVTP and are incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation, revisions (beyond clarifying edits) would constitute a change to the CalVTP Program EIR's description of later project activities.

The Wildlands Conservancy's proposed revision to SPRs is described below. The proposed revision would not result in any new or substantially more severe significant impacts on any of the resources evaluated in the Program EIR and described in this PSA/Addendum. Evidence to explain this conclusion is presented under each applicable resource, as described below.

SPR GEO-1 Suspend Disturbance during Heavy Precipitation

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

The Wildlands Conservancy proposes to suspend mechanical and prescribed herbivory treatments if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical or prescribed herbivory activities. Additionally, The Wildlands Conservancy proposes to implement this SPR only for prescribed herbivory activities associated with goats and sheep, but not for prescribed herbivory activities associated with cattle. In the coastal region of the project area, forecasts often include a chance of rain; however, precipitation sometimes does not materialize. Therefore, suspension of treatment activities in these cases could result in unnecessary loss of work time. Suspension of prescribed herbivory activities using cattle would be infeasible due to the year-round nature of cattle grazing, the large size of the cattle grazing area, and the logistical issues with quickly moving large cattle. Without this revision to SPR GEO-1, the objective to use cattle for prescribed herbivory activities could not be achieved.

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

2 TREATMENT DESCRIPTION

Proposed CalVTP treatment types are shaded fuel breaks and ecological restoration. Proposed CalVTP treatment activities are prescribed burning, mechanical treatments, manual treatment, and prescribed herbivory. Locations of treatment types are shown in Figure 2-1. Table 2-1 summarizes the proposed treatments.

2.1 JENNER HEADLANDS PRESERVE DESCRIPTION

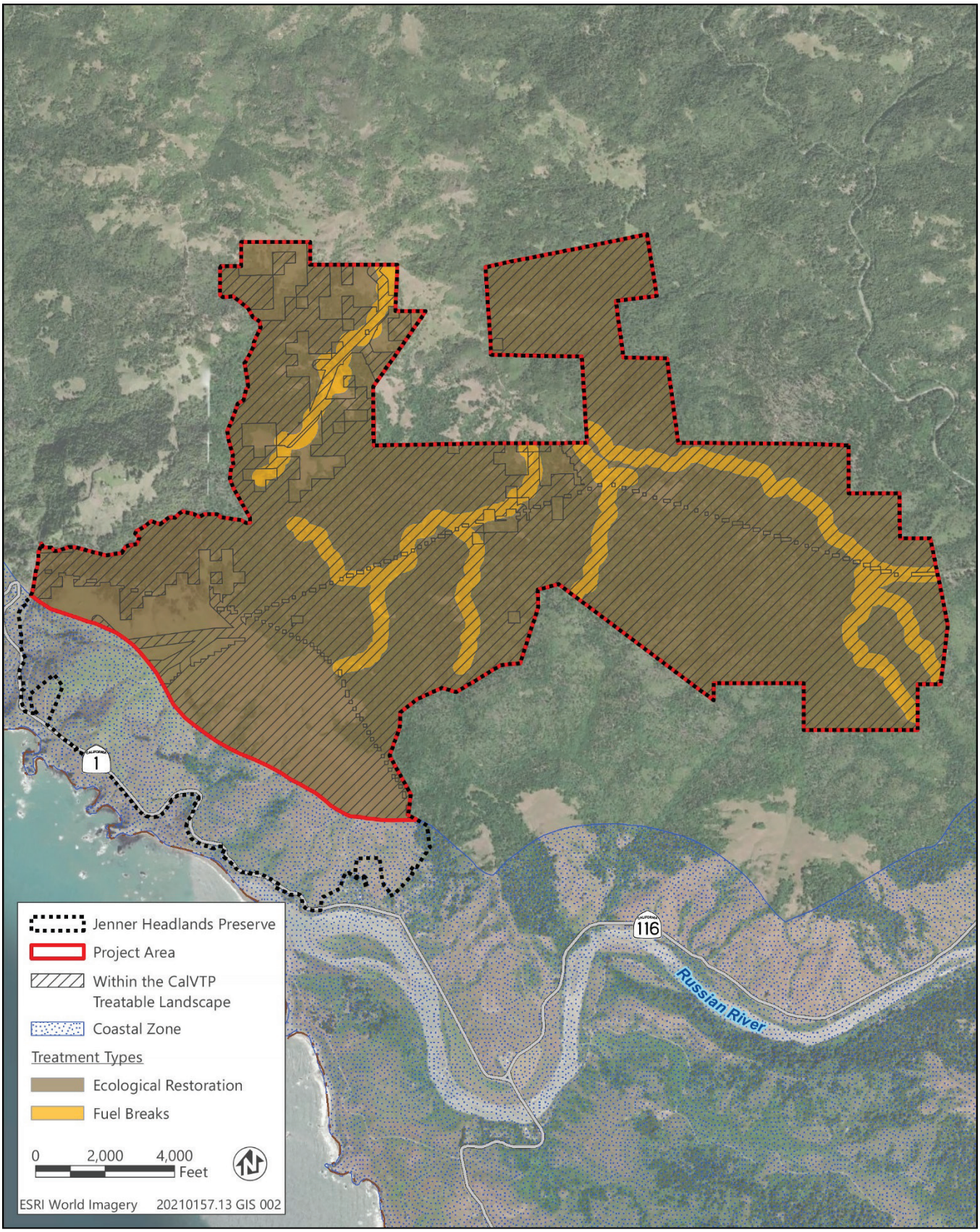
The Preserve is a 5,630-acre mosaic of coast redwood (*Sequoia sempervirens*) and Douglas fir (*Psuedotsuga menziesii*) forests, oak woodland, chaparral, and coastal prairie overlooking the Pacific Ocean. The Preserve adjoins State Route (SR) 1 for 2.5 miles adjacent to Sonoma Coast State Park, just north of the Russian River Estuary. Many rare and special-status species inhabit the property including California red-legged frog (*Rana draytonii*), California giant salamander (*Dicamptodon ensatus*), northern spotted owl (*Strix occidentalis caurina*), American peregrine falcon (*Falco peregrinus*), steelhead (*Oncorhynchus mykiss irideus*), and red tree vole (*Arborimus pomo*). Mule deer (*Odocoileus hemionus*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), and mountain lion (*Puma concolor*) are also found on the property.

2.2 PROPOSED TREATMENTS

The project area encompasses 4,843 acres on land outside the coastal zone within the 5,630-acre preserve (refer to Figure 2-1). The proposed project involves two treatment types: shaded fuel breaks and ecological restoration. The vegetation treatment activities proposed to implement each of these treatment types are prescribed burning (pile and broadcast burning), mechanical treatment (masticating and wood chipping), manual treatment (lop and scatter), and targeted prescribed herbivory (cattle in grasslands and goats/cattle in forested and shrub areas). The objectives of the proposed project are to construct fuel breaks and restore healthy ecological fire regimes for the vegetation communities within the Preserve, which would reduce the risk of catastrophic wildfire in the communities surrounding the Preserve; to create opportunities for emergency responders to control or contain wildfires; and restore natural ecosystem processes, conditions, and resilience through the removal of targeted dense understory fuels and invasive species. These communities include the town of Jenner to the south, Muniz Ranches to the north, and Duncans Mills and Cazadero to the east. Fuel reduction would generally consist of strategic removal of vegetation to prevent or slow the spread of non-wind-driven wildfire between structures and wildlands, and vice versa. Additionally, treatments would address excess dead fuel load related to tanoak (*Notholithocarpus densiflorus*) mortality caused by the Sudden Oak Death pathogen (*Phytophthora ramorum*). The treatment types and treatment activities are described below.

2.2.1 Treatment Types

Proposed treatment types consist of shaded fuel breaks and ecological restoration. Each treatment type is described in more detail below and is consistent with the treatment types described in the CalVTP. Refer to Figure 2-1 for the location of each treatment type within the Preserve. Table 2-1 provides a summary of treatments.



Sources: Data received from The Wildlands Conservancy in 2022; adapted by Ascent in 2022

Figure 2-1 Proposed Project Treatment Types

Table 2-1 Proposed CalVTP Treatments

CalVTP Treatment Type	CalVTP Treatment Activity	Treatment Description	Maximum Treatment Size (acres)	Equipment Used for Treatments	Typical Duration of Treatments
Ecological Restoration	Prescribed Burning	Broadcast Burning	Up to 4,843	Chainsaws, drip torches, water trucks, fire engines, tractors, skidders, mowers, dozers	1 day to 2 weeks
	Mechanical Treatment	Mastication/Chipping	Up to 4,843	Tractors, skidders, masticators, chippers	1 to 6 months
	Manual Treatment	Lop and Scatter	Up to 4,843	Chainsaws, handsaws, brush cutters, loppers	1 to 6 months
	Prescribed Herbivory	Livestock	Up to 4,843	Truck, electric netting, permanent fencing, livestock watering system (e.g., permanent troughs)	1 to 12 months
Fuel Breaks	Prescribed Burning	Pile Burning	Up to 613	Skid steer, tractor, dozer, excavator, drip torches, water trucks, fire engines,	1 day to 2 weeks
	Mechanical Treatment	Mastication/Chipping	Up to 613	Tractors, skidders, masticators, chippers	1 to 6 months
Total acres			**4,843**		

Source: Data provided by The Wildlands Conservancy in 2022.

FUEL BREAKS

In strategic locations, fuel breaks create zones of vegetation removal, often in a linear layout, that reduce wildfire risk and support fire suppression by providing emergency responders with a staging area or access to a remote landscape. Only shaded fuel breaks would be implemented in the project area. In forested areas, the tree canopy would be thinned to reduce the potential for a crown fire to move through the canopy; however, larger trees would remain. The shade of the retained canopy also helps reduce the potential for rapid regrowth of shrubs and sprouting hardwoods and may reduce rill and gully erosion. The shaded fuel breaks also provide important control lines for prescribed fire activities.

Fuel breaks would be established in the project area along strategic topographic locations (e.g., on ridge tops); adjacent to roads, skid trails, and existing fuel breaks; and near high-use areas (e.g., cabins, infrastructure, parking areas, ranch roads), as shown in Figure 2-1. All shaded fuel breaks will occur within 300 feet of existing roads, skid trails, existing fuel breaks, and historic bulldozer lines. To create shaded fuel breaks, shrubs and understory trees would be removed to reduce surface and ladder fuels and create safer places for firefighters to stage equipment and fight wildfire. Live trees up to 10 inches diameter at breast height (dbh) would be felled; live trees greater than 10 inches dbh would be limbed up to 10–15 feet; and spaces of 15–20 feet width would be created between trees. In oak woodlands, treatment would focus on removing encroaching conifers and California bay (*Umbellularia californica*) trees to promote protection of tree health in native oak woodland.

ECOLOGICAL RESTORATION

Ecological restoration treatments would be implemented outside of the shaded fuel break treatment areas in the project area (Figure 2-1). Treatments would seek to protect and restore native ecological function, including returning fire to a more historical and natural role on the landscape to improve native habitats, recreate old growth characteristics with healthy forests and woodland conditions, and create a natural landscape more resilient to wildfires. The proposed treatments seek to improve overall forest, woodland, and grassland health and provide watershed benefits by supporting native habitat structure that is resilient to future natural disturbances and climate scenarios. A healthy, functioning natural landscape would help reduce the impacts of climate change by sequestering carbon, protecting aquatic resources and water quality, and providing important habitat for native wildlife. A healthy natural landscape also can reduce the wildfire risk to surrounding residential communities and protect the rich cultural landscape.

Ecological restoration treatment would focus on thinning small-diameter (e.g., less than 10 inches dbh) trees from overstocked forest units and/or post-fire resprouts to promote the continued growth of mature trees and a healthy forest structure, and improve wildlife movement and habitat. A sufficient number of small-diameter trees would be retained such that age class diversity would be maintained and to facilitate regeneration as determined by a qualified biologist or Registered Professional Forester (RPF). This treatment type involves removing excessive standing dead wood, retaining three to five snags per acre for wildlife habitat (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife), controlling nonnative trees and shrubs, and removing encroaching conifers and California bay saplings in oak woodlands to reduce competition and promote native flora and a healthier forest. Mechanical treatments (e.g., chipping, mastication) may be used as a pretreatment for ecological restoration treatments in areas with low slope or adjacent to the road system.

The Wildlands Conservancy conducts regular northern spotted owl surveys in accordance with an existing Timber Harvest Plan for commercial activities. Project activities would be conducted outside of any potential northern spotted owl nesting limited operating periods and nesting locations, if such avoidance would still allow treatment objectives to be achieved. In forest habitats determined to be occupied (i.e., during previous surveys) or assumed to be potentially occupied by northern spotted owl (e.g., forests with canopy cover greater than 60 percent, complex understory structure, late seral characteristics), treatments would be designed to reduce canopy cover by no more than 20 percent from existing conditions, and a minimum of 60 percent canopy cover would be retained.

To maintain sufficient upland and dispersal habitat for California red-legged frog, the retention of downed woody debris and large snags with cavities would be maximized to the extent feasible while still meeting project objectives. Logs greater than 12 inches would be retained with preference for retaining the largest logs and those with cavities, for a total of an average of approximately 10 tons per acre. Furthermore, 5–10 percent of the herbaceous vegetative understory generally would be retained for frog habitat.

2.2.2 Treatment Activities

The proposed treatment activities are prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory. Each of these treatment activities is described in more detail below and consistent with the treatment activities described in the CalVTP. Table 2-1 provides a summary of treatments and the maximum acreage of each treatment activity in the project area. Treatment activities could occur during any time of year; although, they would be timed to avoid disturbance of northern spotted owls potentially present and nesting on the Preserve.

Prescribed burning may occur during daytime, nighttime, and weekend hours. Mechanical treatments, manual treatments, and human activity related to prescribed herbivory activities could occur on weekdays and weekends but would generally be limited to daytime hours.

PRESCRIBED BURNING

Prescribed burning consists of two types: pile burning and broadcast burning (underburning).

- **Pile burning:** Biomass from mechanical treatment and manual treatment would be piled using equipment (e.g., skid steer, tractor, dozer, excavator) or hand crews and burned appropriately. Typically, dozers are equipped with a brush rake to reduce soil displacement and create "clean" piles. Pile burning would occur in an understory or in areas with little to no live overstory, including areas that have experienced previous wildfire. Pile burning would occur at least 20 feet from Class III watercourses, and outside of watercourse and lake protection zones (WLPZ) for Class I and Class II watercourses.
- **Broadcast burning:** Broadcast burning would be used to promote forest health and native flora and reduce biomass and fuel loading in grassland, woodland, and forest vegetation types. Pretreatment of vegetation using mechanical treatment or manual treatment would occur in areas proposed for broadcast burning. For example, chipping and mastication may be used as a pretreatment in areas with low slope or areas adjacent to roads. Broadcast burning in the grassland areas would help control nonnative plant species and reduce fine fuels. These treatments would also promote a more natural, sustainable, and wildfire resilient native landscape.

The Wildlands Conservancy would implement a broadcast burn to partially remove understory and ground cover vegetation during periods when weather and vegetation conditions allow the desired fire intensity to meet treatment objectives and do not create fire behavior that would jeopardize control of the prescribed burn (e.g., the burn would occur during relatively high humidity, high fuel moisture content). The goal is to conduct a low intensity burn that burns only targeted ground and litter fuels, creating a mosaic of habitat types. Prescribed burning may require the construction of new control lines or enhancement of existing control lines using mechanical treatment or manual treatment, primarily through mowing or using hand tools; however, use of heavy equipment (e.g., tractors, skidders, dozers) in certain areas may be required. Prescribed burning would be led by CAL FIRE, a close partner of The Wildlands Conservancy. Prescribed burning would require between 10 and 50 crew members, depending on size and site characteristics of the burn unit. Typically, each burn would last 1 day to 1 week. Equipment could include water trucks, fire engines, chainsaws, and drip torches. All burning would occur in accordance with regulations regarding the use of prescribed burning.

MECHANICAL VEGETATION TREATMENT

Mechanical treatments would include masticating target vegetation and chipping biomass from mechanical treatment and manual treatment activities. Equipment would include tractors/skidders, chippers, and masticators. Up to two crews of approximately two to 25 members may operate at the same time across the project area. Typically, treatments would require seven days to several months to complete. Equipment would be operated on or within 100 feet of existing roads or skid trails in fuel break treatment areas and on existing roads or skid trails or on flat to moderate slopes in ecological restoration treatment areas.

Small-diameter trees (e.g., less than 10 inches dbh), downed woody debris, and woody shrubs would be masticated or chipped to increase tree spacing and reduce fire fuel loads in targeted areas. The biomass would be disposed of via mastication (which essentially mulches the vegetation). In some areas, prescribed burning may be used to consume chipped and masticated materials. Generally, mechanical treatments would:

- masticate target live woody shrubs and trees up to 10 inches dbh;
- remove limbs of large trees (i.e., greater than 10 inches dbh) up to 15 feet high;
- prune trees with multiple stems (e.g., madrone [*Arbutus menziesii*]) to two or three stems per tree;
- masticate standing dead trees and shrubs up to 24 inches in diameter, while retaining at least three to five snags per acre (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife);
- retain downed logs greater than 12 inches would be retained with preference for retaining the largest logs and those with cavities, for a total of an average of approximately 10 tons per acre;
- maintain at least 35 percent relative final density of chaparral vegetation;

- to the extent feasible, retain buckeye (*Aesculus californica*), mature madrone, true oaks, redwood, big-leaf maple (*Acer macrophyllum*), native shrubs (e.g., gooseberry [*Ribes* spp.] and snowberry [*Symphoricarpos* spp.]) and other desirable species as determined by The Wildlands Conservancy;
- in areas specified for retention of vegetation outside of riparian habitat, maintain associated herbaceous vegetative understory components with an overall goal of maintaining a minimum of approximately 5–10 percent herbaceous understory vegetation per acre unless removal is warranted to protect homes, communities, or other key infrastructure or assets including roads;
- and target successional tree species, including tanoak, bay laurel, sprouting madrone, and Douglas fir, for thinning.

MANUAL VEGETATION TREATMENT

To implement manual treatments, crews of approximately eight to 20 members would use hand tools and hand-operated power tools, including chainsaws, hand saws, brush cutters, and loppers, to cut, clear, and/or prune trees, herbaceous vegetation, and woody shrubs and increase space between trees. Typically, treatments would require several days to several months to complete, depending on the treatment size, steepness of terrain, and type and density of vegetation. Trees would be removed, thinned, and pruned and woody shrubs would be cut and cleared. In madrone forests, the focus would be on thinning/cutting dense standing dead wood, including dead trees up to 24 inches dbh, while retaining three to five snags per acre for wildlife habitat (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). In oak woodland habitat, the focus would be on the removal of Douglas fir trees to reduce oak tree shading and therefore promote oak woodland habitat. Where feasible, treatments would focus on removing nonnative and invasive species. Manual treatment activities may occur within 100 feet of streams (i.e., Class I, II, or III) to improve habitat and reduce undesirable wildfire hazards. Manual treatment within 100 feet of streams would occur outside of bird nesting season if feasible.

Cut vegetation would be left on-site by lopping and scattering or chipping. In some areas, removed vegetation would be piled for later pile burning or broadcast burning. The same general guidelines for tree and vegetation removal and retention would be followed as described above for mechanical treatments.

PRESCRIBED HERBIVORY

Prescribed herbivory for hazardous fuel reduction is the intentional use of domestic livestock to remove, rearrange, or convert vegetation in wildlands to reduce the costs and losses associated with wildfires and to enhance the condition of forests, rangelands, and watersheds. Prescribed herbivory can offer a variety of benefits in comparison to other types of vegetation treatments. Herbivores are essentially a "biological masticator" that can reproduce themselves and turn unwanted biomass into a consumable product that can sustain the animal. In addition to fire prevention benefits, carefully managed grazing can provide important environmental benefits such as increased soil organic matter, control of invasive species, and improved plant and wildlife habitat.

The Wildlands Conservancy would consider the following in designing treatments that use prescribed herbivory instead of other treatment activities:

- Air quality, when compared to the use of prescribed burning.
- Noise, when compared to mechanical treatment and some manual treatments.
- Proximity to structures, when compared to risks of using prescribed burning or mechanical treatment.
- Steep slopes, when compared to prescribed burning, manual, or mechanical treatments.
- Soil compaction and surface disturbance, when compared to mechanical treatments.
- Noxious weed control, when compared to manual or mechanical treatments.

The Wildlands Conservancy would research the best scenarios in which to utilize prescribed herbivory as advised above. The preferred livestock for herbivory in the project area would be goats, especially in areas with dense shrubs and forested areas. Cattle would also be used, especially in areas containing expansive acres of grassland. Local goat herders would be contracted based on the size of the herd and specific needs based on aspects of the environment. Herds may be moved as often as every 1 to 3 days and one to two workers would be required on average to implement this treatment activity. Cattle grazing would be implemented from 3 to 12 months dependent upon forage and stocking rates.

BIOMASS DISPOSAL

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

- Masticating (approximately 10 percent of biomass): masticating or mulching vegetative debris and placing it on the ground concurrently with vegetation removal. The residual masticated material would remain uniformly spread to the extent feasible within the project area, would not exceed a depth of approximately 6 inches and would average 3 inches in depth to allow growth of herbaceous vegetation.
- Chipping (approximately 1 percent of biomass): chipped biomass would be spread uniformly over treatment areas to the extent feasible and would not exceed 6 inches in depth and would average 3 inches in depth to allow growth of herbaceous vegetation.
- Lopping and scattering (approximately 50 percent of biomass): cut vegetation would be scattered within the treatment area and would be left within 18 inches of the ground to promote decomposition. Areas where lopping and scattering would occur may also be subject to broadcast burning.
- Pile burning (approximately 10 percent of biomass): in some areas, pile burning may be used to dispose of slash, chipped, and masticated materials.
- Broadcast burning (approximately 30 percent of biomass): broadcast burning would be conducted in areas where lopping and scattering has been conducted, as appropriate.

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

2.3 TREATMENT MAINTENANCE

Maintenance, or retreatment, of the areas treated under the proposed project would follow The Wildlands Conservancy's existing general land management practices (i.e., referenced in the Preserve's Integrated Resources Management Plan) and would be based on real-time monitoring of site conditions. In forested and woodland areas, maintenance treatment is anticipated to occur every 2-10 years. In brush-dominated areas, maintenance treatment is anticipated to occur every 5 years. In areas where initial treatment included removing multiple stems from stump-sprouting vegetation (e.g., madrone, California bay) maintenance treatment would occur every 2-5 years. Maintenance treatment methods would involve the same vegetation treatment activities used in the initial treatment; however, The Wildlands Conservancy anticipates the use of more hand crews and prescribed herbivory than mechanical equipment in comparison to initial treatments. Maintenance treatment would typically be implemented between approximately August and January, outside of the nesting bird season, if feasible. Periodic maintenance treatments would occur as needed, determined by qualified staff who would monitor vegetation growth conditions on the Preserve.

Maintenance treatment would be dependent on regrowth conditions and would differ by location. Retreatment would be implemented within a given vegetation type only if that vegetation type is outside of its natural fire return interval (i.e., time since last burn is greater than the average fire return interval for the habitat type). These intervals vary by vegetation type. For example, chaparral vegetation types generally require a minimum of 10 years to recover after fire or fire-replicating treatments. Chaparral vegetation types dominated by obligate seeders generally require a minimum of 15 years to recover (Syphard et al. 2019), and common manzanita chaparral, which is prevalent in the project area,

requires a minimum of 30 years to recover post fire (Abrahamson 2014). Northern California mixed evergreen forest vegetation types require a minimum of five years to recover after a surface or low severity fire, 15 years minimum after a mixed severity fire, and 100 years minimum following a stand-replacing event (Tollefson 2008). Red fire-white fir vegetation type requires 50 years minimum to recover following surface or low severity fires, 70 years following a mixed severity fire, and 200 years following a stand-replacing fire (Tollefson 2008). California montane and subalpine grasslands generally require a minimum of 16 years to recover (USFS 2019), and California low-elevation grasslands require a minimum of two years to recover (USFS 2012). Treatment activities that do not use fire (e.g., manual treatments, mechanical treatments) are considered "fire surrogates." In the absence of additional data regarding mechanical and manual treatment activities, fire return interval is used as a proxy for disturbance (e.g., manual treatment may be analogous to a low severity fire, mechanical treatment may be analogous to a mixed severity fire). Pursuant to SPR BIO-5, all treatments and the maintenance treatment interval will be designed to maintain habitat function of the specific chaparral vegetation alliance being treated and to avoid type conversion of chaparral. As a result, retreatment is generally anticipated to occur between 2 and 10 years following initial treatments in common vegetation types that are not sensitive natural communities or sensitive habitats (e.g., wetland, riparian, chaparral). Maintenance treatments would generally be at lower intensity and scale than initial treatments. Prior to implementing maintenance treatments, The Wildlands Conservancy will determine the natural fire return interval of the habitat(s) to be retreated.

Prior to implementing a maintenance treatment, The Wildlands Conservancy would verify that the expected site conditions as described in the PSA/Addendum are present in the treatment area. As time passes, the continued relevance of the PSA/Addendum would be evaluated in consideration of potentially changed conditions or circumstances. If environmental conditions evolve or project approaches change to the degree that new or substantially more severe impacts may occur, a new PSA/Addendum or other environmental analysis may be warranted.

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

3 ENVIRONMENTAL CHECKLIST

VEGETATION TREATMENT PROJECT INFORMATION

1. **Project Title:** Jenner Headlands Preserve Vegetation Treatment Project
2. **CalVTP I.D. Number:** 2022-25
3. **Implementing Entity's Name and Address:** The Wildlands Conservancy
   39611 Oak Glen Rd., Bldg 12
   Oak Glen, CA 92399

   The Wildlands Conservancy – Jenner Headlands Preserve
   15200 Willig Dr.
   Jenner, CA 95450
4. **Contact Person Information and Phone Number:** Luke Farmer
   707.329.9539
   luke.f@wildlandsconservancy.org
5. **CEQA Lead Agency Name and Address:** California State Coastal Conservancy
   1515 Clay Street, 10th Floor
   Oakland, CA 94612
6. **Contact Person Information and Phone Number:** Morgan Wright
   341.699.7427
7. **Project Location:** Sonoma County, N 38.46415, W -123.12374. Western Sonoma County along Highway 1 at the mouth of the Russian River. East of the town of Jenner and Duncans Mills, the project area extends north to Pole Mountain and east to Kidd Creek near Cazadero.
8. **Total Area to Be Treated (acres)** Up to 4,843 acres
9. **Description of Project**: Treatments would involve prescribed burning, mechanical treatment, manual treatments, and prescribed herbivory. See Section 2, above for additional details.

   a. Initial Treatment
   Initial treatments would include ecological restoration and fuel break treatments by prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory methods. See Chapter 2, "Project Description," for additional details.

   Treatment Types

   ☐ Wildland-Urban Interface Fuel Reduction

   ☒ Fuel Break

   ☒ Ecological Restoration

   Treatment Activities

   ☒ Prescribed Burning (Broadcast), 4,843 acres

   ☒ Prescribed Burning (Pile Burning), 613 acres

   ☒ Mechanical Treatment, 4,843 acres

   ☒ Manual Treatment, 4,843 acres

☒ Prescribed Herbivory, 4,843 acres

☐ Herbicide Application, 0 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

b. Treatment Maintenance

Treatments would involve prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory. See Section 2.3, above for additional details.

Treatment Types

☐ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast), 4.843 acres

☒ Prescribed Burning (Pile Burning), 613 acres

☒ Mechanical Treatment, 4,843 acres

☒ Manual Treatment, 4.843 acres

☒ Prescribed Herbivory, 4.843 acres

☐ Herbicide Application, 0 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

See "Treatment Maintenance" above

10. Regional Setting and Surrounding Land Uses:

The project would occur on The Wildlands Conservancy's Jenner Headlands Preserve in Sonoma County. The Jenner Headlands Preserve is approximately 5,630 acres, and is located in the coastal mountains in western Sonoma County. The project area is primarily undeveloped and mountainous with recreation and grazing land uses.

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

Prescribed herbivory application permit would be obtained from the Sonoma County Agricultural Commissioner

Smoke management plans would be prepared for the Bay Area Air Quality Management District and Northern Sonoma County Air Pollution Control District, as required.

Burn permits would be obtained from CAL FIRE and the Bay Area Air Quality Management District and Northern Sonoma County Air Pollution Control District, as required.

Coastal Act Compliance

☒ The proposed project is NOT within the Coastal Zone.

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

- ☐ A coastal development permit has been applied for or obtained from the local Coastal Commission district office or local government with a certified Local Coastal Plan, as applicable.
- ☐ The local Coastal Commission district office or local government with a certified Local Coastal Plan (in consultation with the local Coastal Commission district office) has determined that a coastal development permit is not required.

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

Pursuant to SPR CUL-2, on January 26 and 27, 2023, letters or emails inviting the tribes to consult were mailed to the following tribes indicated by NAHC: Cloverdale Rancheria of Pomo Indians, Dry Creek Rancheria or Pomo Indians, Federated Indians of Graton Rancheria, Guidiville Indian Rancheria, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Koi Nation of Northern California, Lytton Rancheria of California, Middletown Rancheria, Mishewal-Wappo Tribe of Alexander Valley, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Pinoleville Pomo Nation, and Robinson Rancheria of Pomo Indians. One response was received from the Kashia Band of Pomo Indians of the Stewarts Point Rancheria.

DETERMINATION

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

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

☒ I find that the presence of proposed project areas outside the CalVTP treatable landscape will not result in substantial changes in the project, no substantial changes in circumstances have occurred, and no new information of substantial importance has been identified. The inclusion of project areas outside the CalVTP treatable landscape will not result in any new or substantially more severe significant impacts. None of the conditions described in State CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred; therefore, an **ADDENDUM** is adopted to address the project areas outside the geographic extent presented in the Program EIR.

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

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

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

Amy Hutzel

Signature

6/5/2023

Date

Amy Hutzel

Printed Name

Executive Officer

Title

State Coastal Conservancy

Agency

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4 PROJECT-SPECIFIC ANALYSIS/ADDENDUM

4.1 AESTHETICS AND VISUAL RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	LTS	Impact AES-1, pp. 3.2-16 – 3.2-19	Yes	AES-2 AQ-2 AQ-3 REC-1	NA	LTS	No	Yes
Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Wildland-Urban Interface Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	Yes	AD-4 AES-1 AES-3 REC-1	NA	LTS	No	Yes
Impact AES-3: Result in Long-Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Nonshaded Fuel Break Treatment Type	SU	Impact AES-3, pp. 3.2-25 – 3.2-27	No	--	--	--	--	--

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

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

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

Discussion

IMPACT AES-1

Initial and maintenance treatment activities would include prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory. The potential for these treatment activities to result in short-term degradation of the visual character of a treatment area was examined in the Program EIR. The nearest eligible state scenic highway to the project area is SR 1, located south of the project area, and the nearest officially designated state scenic highway to the project area is SR 116 located south/southeast of the project area (Caltrans 2022) (refer to Figure 2-1). The proposed treatments would occur on private lands that are accessible to the public. Public viewpoints within and near the project area from which treatments would be visible include public trails within the Preserve, SR 1, SR 116, and other public roadways. Portions of the project area could be visible from public viewpoints and a designated state scenic highway. Other portions of the project area are densely vegetated with mature trees and varied topography, which would substantially reduce the visibility of treatments from public viewpoints. In addition, treatments would remove shrubs and trees smaller than 10 inches dbh, leaving overstory vegetation. Although in the short-term after treatment, the absence of treated vegetation could be noticeable, mature vegetation would remain to maintain the natural appearance of the Preserve. However, equipment, crews and smoke from prescribed burning could be visible from public viewpoints and a designated state scenic highway (SR 116) in the short term during active treatments.

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

IMPACT AES-2

Initial and maintenance treatments would include ecological restoration and shaded fuel break treatment types. The potential for these treatment types to result in long-term degradation of the visual character of an area was examined in the Program EIR. Public viewpoints of the project area include publicly accessible trails and recreation areas within and around the Preserve, SR 1, SR 116, and other public roadways. Treatments would remove shrubs and trees smaller than 10 inches dbh, leaving overstory vegetation. Therefore, mature vegetation would remain to maintain the natural appearance of the Preserve. The long-term visual character of the treatment areas after implementation of the proposed ecological restoration and shaded fuel break treatments would remain consistent with the current natural, vegetated landscape and would not constitute a noticeable adverse change or degrade the currently visual character of the landscape.

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

IMPACT AES-3

This impact does not apply to the proposed project because non-shaded fuel breaks are not proposed.

NEW AESTHETIC AND VISUAL RESOURCE IMPACTS

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

4.2 AGRICULTURE AND FORESTRY RESOURCES

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

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

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

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

Discussion

The land within the project area is identified as Grazing Land in the California Department of Conservation's Farmland Mapping and Monitoring Program (DOC 2022).

IMPACT AG-1

Vegetation treatment activities proposed within the project area would include prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory to implement ecological restoration and fuel break treatment types.

The proposed treatments would not result in the conversion of grazing lands to non-agricultural use. In addition to the continuation of current grazing practices, The Wildland Conservancy would use targeted grazing (prescribed herbivory) by cattle, goats, and sheep within the project area to treat vegetation. In forested areas, shrubs and understory trees would be removed to create shaded fuel breaks. Live trees up to 10 inches dbh would be felled, live trees greater than 10 inches dbh would be limbed up to 10–15 feet, and spaces of 15–20 feet width would be created between trees. In oak woodlands, treatment would focus on removing encroaching conifers and California bay trees to promote protection of tree health in native oak woodland. Consistent with the Program EIR, the vegetation remaining after treatments would meet the definition of forestland as defined in PRC Section 12220(g), which defines "forest land" as land that can support 10-percent native tree cover of any species under natural conditions. The potential for the proposed project to result in the loss of agricultural or forest land or conversion of agricultural or

forest land to other use was examined in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the composition of forested land as defined in PRC Section 12220(g) is essentially the same within and outside the treatable landscape; therefore, the impact on forest land is also the same, as described above. No SPRs are applicable to this impact. Therefore, the potential for the project to result in the loss or conversion of forestland is within the scope of the Program EIR. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AGRICULTURE AND FORESTRY RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The the site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.3.1, "Environmental Setting," and Section 3.3.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to new significant impacts not addressed in the Program EIR. Therefore, no new impact related to agriculture and forestry resources would occur that is not covered in the Program EIR.

4.3 AIR QUALITY

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

Notes: LTS = less than significant; SU = significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact; None = there are SPRs and/or MMs identified in the Program EIR for this impact, but none are applicable to the treatment project.

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

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

Discussion

The project area is within the jurisdiction of the Northern Sonoma County Air Pollution Control District (NoSoCo Air). Pursuant to SPR AQ-2, The Wildlands Conservancy would prepare a smoke management plan and submit it to NoSoCo Air where prescribed burning is proposed before implementing a prescribed burning treatment, if required. Pursuant to SPR AQ-3, a burn plan would be prepared for broadcast burning, would include fire behavior modeling, and would be implemented by a qualified technician or state-certified burn boss, as required. An Incident Action Plan, which identifies burn dates, burn hours, weather limitations, specific burn prescription, the communication plan, the medical plan, the traffic plan, and other special instructions would also be prepared by The Wildlands Conservancy or by subcontractors or partners of The Wildlands Conservancy (e.g., CAL FIRE) for all proposed prescribed burning treatments. The Incident Action Plans should also identify the contact personnel with NoSoCo Air to coordinate on-site briefings, posting notifications, and weather monitoring during burning.

IMPACT AQ-1

Use of vehicles, mechanical equipment, and prescribed burning during initial and maintenance treatments would result in emissions of criteria pollutants that could exceed California ambient air quality standard (CAAQS) or national ambient air quality standard (NAAQS) thresholds. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the Program EIR. Emissions of criteria air pollutants related to the proposed treatment are within the scope of the Program EIR because the associated equipment and duration of use are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions present and air basin in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. The SPRs applicable to this impact are AD-4, and AQ-1 through AQ-6. Emission reduction techniques included in Mitigation Measure AQ-1 would be infeasible for The Wildlands Conservancy to implement. The Wildlands Conservancy is a not-for-profit agency and would be largely contracting with others to implement the vegetation treatments. It is cost prohibitive for The Wildlands Conservancy to procure equipment meeting the latest efficiency standards, including meeting the US Environmental Protection Agency's Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology. However, The Wildlands Conservancy would encourage, but not require, use of these emission reduction techniques by its contractors, including by stating such in its contractor procurement process. In addition, crew sizes would be small, and crews may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. For these reasons, and as explained in the Program EIR, this impact would remain significant and unavoidable.

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

IMPACT AQ-2

Use of vehicles and mechanical equipment during initial and maintenance treatments could expose people, such as hikers in and around the Preserve, to diesel particulate matter emissions. However, treatment activities would not take place near the same people for an extended period. The potential to expose people to diesel particulate matter emissions was examined in the Program EIR. Diesel particulate matter emissions from the proposed treatments are within the scope of the Program EIR because the exposure potential is the same as analyzed in the Program EIR, and the types and amount of equipment that would be used, as well as the duration of use, during proposed treatments are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors (i.e., exposure potential) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this impact are

HAZ-1, NOI-4, and NOI-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-3

Use of vehicles, mechanical equipment, and prescribed burning during treatments would involve ground disturbing activities. The potential to expose people to naturally occurring asbestos (NOA)-containing fugitive dust emissions was examined in the Program EIR. Most of the treatment area is not located on soil types where NOA would be present; however, portions of the project area have been mapped as underlain by serpentine soils (Warner 2010). In accordance with SPR AQ-5, no treatments would occur in these areas unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by NoSoCo Air. Potential NOA exposure from the proposed treatments is within the scope of the activities and impacts addressed in the Program EIR because avoidance of treatments in NOA-containing areas is consistent with the impacts analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this impact are AQ-4 and AQ-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-4

Prescribed burning during initial and maintenance treatments could expose people to toxic air contaminants, which was examined in the Program EIR. The duration and parameters of the prescribed burns are within the scope of the activities addressed in the Program EIR, and within the NoSoCo Air District, air quality conditions are consistent with those analyzed in the Program EIR for Sonoma County. Therefore, the potential for exposure to toxic air contaminants is also within the scope of the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions present and air basins in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to these treatment activities are AD-4, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke emissions, as well as exposure to smoke, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain significant and unavoidable, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-5

Use of vehicles and mechanical equipment during initial and maintenance treatments could expose people, such as hikers in and around the Preserve, to objectionable odors from diesel exhaust. However, treatment activities would not take place near the same people for an extended period of time. The potential to expose people to objectionable odors from diesel exhaust was examined in the Program EIR. Consistent with the Program EIR, diesel exhaust emissions would be temporary, would not be generated at any one location for an extended period of time, and would dissipate rapidly from the source with an increase in distance. This impact is within the scope of the Program EIR because the equipment that would be used and the duration of use under the proposed project are consistent with what was analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions, and sensitive receptors present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to the proposed project are AQ-1, HAZ-1, NOI-4, and

NOI-5. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-6

Prescribed burning during initial and maintenance treatments could expose people to objectionable odors. The potential to expose people to objectionable odors from prescribed burning was examined in the Program EIR. The duration and parameters of the prescribed burning and the exposure potential are consistent with the activities addressed in the Program EIR. Therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions present and sensitive receptors in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs that are applicable to this treatment project are AD-4, AQ-2, AQ-3, and AQ-6. All feasible measures to prevent and minimize smoke odors, as well as exposure to smoke odors, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain significant and unavoidable, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AIR QUALITY IMPACTS

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

4.4 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

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

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

New Archaeological, Historical, and Tribal Cultural Resource Impacts: Would the treatment result in other impacts on archaeological, historical, and tribal cultural resources that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Consistent with SPR CUL-1, a records search of the approximately 4,843-acre project area was conducted at the Northwest Information Center (NWIC) in October 2022 (NWIC File No.: 22-0480). The records search revealed 14 previously recorded precontact archaeological sites, 15 historic-era archaeological sites, seven multicomponent archaeological sites containing both historic and prehistoric elements and one historic feature. None of the previously recorded sites have been evaluated for California Register of Historical Resources (CRHR) eligibility.

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On January 26 and 27, 2023, letters and emails inviting the tribes to consult were mailed to the 15 tribal representatives indicated by NAHC. One response was received from the Kashia Band of Pomo Indians of the Stewarts Point Rancheria. A November 9, 2022 search of NAHC's sacred lands database returned positive results.

IMPACT CUL-1

Proposed treatment activities include prescribed burning and mechanical treatments, which could damage historical resources. Although the NWIC records search revealed one built-environment feature, it has not been evaluated for CRHR-eligibility; therefore, it is not known if it is considered a resource under CEQA. The feature is located within the southern portion of the project area, where ecological restoration is proposed. Structures (i.e., buildings, bridges, roadways) over 50 years old that have not been recorded or evaluated for historical significance may be present in the project area, and these structures would be identified and avoided pursuant to SPR CUL-7. The potential for these treatment activities to result in disturbance, damage, or destruction of built-environment structures that have not yet been evaluated for historical significance was examined in the Program EIR. This impact is within the scope of the Program EIR, because treatment activities and the intensity of ground disturbance of the treatment project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the potential to encounter built-environment structures that have not yet been evaluated for historical significance in areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on historical resources is also the same, as described above. SPRs applicable to this impact are CUL-1, CUL-7, and CUL-8. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-2

Vegetation treatment would include prescribed burning and mechanical treatments using heavy equipment that could churn up the surface of the ground during treatment as vegetation is removed and road repair activities would include ground disturbance; these activities may result in damage to known or previously unknown archaeological resources. The NWIC records search revealed 36 previously recorded archaeological sites, consisting of precontact sites (lithic scatters, bedrock milling features, habitation debris, rock shelters, and petroglyphs) and historic-era archaeological sites (foundations and structure pads, wells and cisterns, water conveyance systems, roads, walls and fences, ranch components, and trash scatters). None of these sites have been evaluated for eligibility for listing in the CRHR. Therefore, it is not known whether the sites are considered resources under CEQA. These sites are located throughout the project area, in areas where both ecological restoration and fuel breaks are proposed. It should be noted that many of these archaeological sites were recorded over 20 years ago. It is unknown if these sites are in their currently mapped location; it is not uncommon for archaeological materials to be moved over time either due to human disturbance or actions of nature, or simple mapping errors. A survey would be conducted before treatment pursuant to SPR CUL-4 to confirm the location of previously recoded archaeological sites and identify any previously unrecorded archeological resources; identified resources would be avoided according to the provisions of SPR CUL-5.

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

contribute to the environmental significance conclusion in the Program EIR; therefore, for purposes of CEQA compliance, this PSA/Addendum notes the impact as potentially significant and unavoidable.

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

IMPACT CUL-3

Native American contacts in Sonoma County were contacted on January 26 and 27, 2023, and included Cloverdale Rancheria of Pomo Indians, Lytton Rancheria, Dry Creek Rancheria Band of Pomo Indians, Middletown Rancheria, Federated Indians of Graton Rancheria, Mishewal-Wappo Tribe of Alexander Valley, Guidiville Indian Rancheria, Muwekma Ohlone Indian Tribe of the SF Bay Area, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Pinoleville Pomo Nation, and Robinson Rancheria Band of Pomo Indians. On February 23, 2023, the State Coastal Commission received a response from the Kashia Band of Pomo Indians of the Stewarts Point Rancheria. A call between the State Coastal Commission and the Tribe was held on March 3, 2023. Following the call, The Wildlands Conservancy planned a site visit with the Kashia Band of Pomo Indians on March 15, 2023, "to ensure that there are no negative impacts to sensitive cultural resources"; however, the weather has delayed that tour. It will be rescheduled once the weather allows.

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

IMPACT CUL-4

Vegetation treatment activities would include mechanical treatments using heavy equipment; these treatments may use skid steers, excavators, and dozers, which could uncover human remains. The NWIC records search did not reveal any burials or sites containing human remains. The potential for treatment activities to uncover human remains was examined in the Program EIR. This impact is within the scope of the Program EIR, because the treatment activities and intensity of ground disturbance are consistent with those analyzed in the Program EIR. Additionally, consistent with the Program EIR, the project would comply with California Health and Safety Code Section 7050.5 and PRC Section 5097 in the event of a discovery. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the potential for uncovering human remains during implementation of the treatment project is essentially the same within and outside the treatable landscape and treatment activities; therefore, the impact related to disturbance of human remains is also the same, as described above. No SPRs are applicable to this

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

NEW ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCE IMPACTS

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

4.5 BIOLOGICAL RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTSM	Impact BIO-1, pp 3.6-131 – 3.6-138	Yes	AQ-3 AQ-4 BIO-1 BIO-2 BIO-7 BIO-9 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7	BIO-1a BIO-1b	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTSM (all wildlife species except bumble bees) SU (bumble bees)	Impact BIO-2, pp 3.6-138 – 3.6-184	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-10 BIO-11 HYD-1 HYD-3 HYD-4	BIO-2a BIO-2b BIO-2e	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 BIO-9 HYD-4	BIO-3a BIO-3b BIO-3c	LTSM	No	Yes
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTSM	Impact BIO-4, pp 3.6-191 – 3.6-192	Yes	BIO-1 HYD-1 HYD-3 HYD-4	BIO-4	LTSM	No	Yes
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTSM	Impact BIO-5, pp 3.6-192 – 3.6-196	Yes	BIO-1 BIO-4 BIO-5 BIO-10 BIO-11 HYD-1 HYD-4	BIO-5	LTSM	No	Yes

Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	LTS	Impact BIO-6, pp 3.6-197 – 3.6-198	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-12	NA	LTS	No	Yes
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	NI	Impact BIO-7, pp 3.6-198 – 3.6-199	Yes	AD-3	NA	NI	No	Yes
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	NI	Impact BIO-8, pp 3.6-199 – 3.6-200	No	--	--	--	--	--

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

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

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

Discussion

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of project-specific biological resources, including habitat and vegetation types, and special-status plants, special-status wildlife, and sensitive habitats (i.e., sensitive natural communities, riparian habitat, wetlands) with potential to occur in the project area. Vegetation Classification and Mapping Program (VegCAMP) mapping of Sonoma County was used to identify the habitat and vegetation types within the project area (Tukman and Kass 2022).

The project area is located in the Northern California Coast ecoregion. The project area ranges in elevation from approximately 30 feet to 2,120 feet. Habitat types within the project area and total acreage of each type are presented in Table 4.5-1. One of the habitat types, tanoak forest alliance, is where most of the sudden oak death (SOD) occurs on property, although SOD infected tanoak occurs within Douglas fir - tanoak forest and woodland and redwood forest and woodland alliances as well. Tanoak stands in the project area contain large patches of dead trees that have succumbed to SOD. There are some patches of tanoak forest where 80 percent of the stand is considered unhealthy (The Wildlands Conservancy 2020). Based on the experience of neighboring Sonoma County landowners, tanoak trees throughout the project area will most likely eventually succumb to SOD, which would alter the composition and density of these stands (Berger and Farmer, pers. comm., 2022). Class I and Class II streams are present in the project area.

Table 4.5-1 Habitat Types in the Project Area

Sonoma County VegCAMP Class	CWHR	Ecological Restoration Acreage	Fuel Break Acreage	Total Acreage
Forest/Woodland				
Bigleaf maple forest and woodland Alliance	Montane Hardwood	10.5	—	**10.5**
California bay forest and woodland Alliance	Coastal Oak Woodland	164.3	24.9	**189.2**
California black oak forest and woodland Alliance	Montane Hardwood	1.7	—	**1.7**
Canyon live oak forest and woodland (tree) Alliance	Montane Hardwood	1.4	—	**1.4**
Coast live oak woodland and forest Alliance	Coastal Oak Woodland	6.3	5.9	**12.2**
Douglas fir forest and woodland Alliance	Douglas Fir	525.8	59.1	**585.0**
Douglas fir - tanoak forest and woodland Alliance	Douglas Fir	127.0	31.8	**158.8**
Madrone forest Alliance	Coastal Oak Woodland	18.0	26.3	**44.3**
Mixed oak forest and woodland Alliance	Montane Hardwood	1.7	–	**1.7**
Oregon white oak forest and woodland Alliance	Montane Hardwood	8.6	0.5	**9.1**
Redwood forest and woodland Alliance	Redwood	2,018.1	244.8	**2,262.9**
Tanoak forest Alliance	Montane Hardwood	522.8	139.7	**662.3**
Valley oak woodland and forest Alliance	Valley Oak Woodland	8.4	1.8	**10.2**
Temperate forest	N/A	2.6	—	**2.6**
Forest/Woodland Total	—	—	—	***3,951.9***
Shrub/Scrub				
Blue blossom chaparral Alliance	Coastal Scrub	—	1.2	**1.2**
California yerba santa - silver lupine scrub Alliance	Coastal Scrub	0.6	<0.01	**0.6**
Chamise chaparral Alliance	Mixed Chaparral	—	0.7	**0.7**
Coyote brush scrub Alliance	Coastal Scrub	61.3	3.6	**64.9**
Manzanita (Hoary, common, and Stanford) Eastwood manzanita Mapping Unit	Mixed Chaparral	0.8	—	**0.8**
Shrub/Scrub Total	—	—	—	***68.2***
Herbaceous				
California annual and perennial grassland Macrogroup	Annual Grassland; Perennial Grassland	98.4	22.9	**121.3**
Native and nonnative perennial coastal grassland Mapping Unit	Perennial Grassland; Wet Meadow	632.2	49.6	**681.7**
Herbaceous Total	—	—	—	***803***
Wetland/Riparian				
Southwestern North American riparian/wash scrub Group	Valley Foothill Riparian	1.5	—	**1.5**
Vancouverian riparian deciduous forest Group	Montane Riparian	10.2	—	**10.2**
Western North American freshwater marsh Macrogroup	Fresh Emergent Wetland; Wet Meadow	5.6	—	**5.6**

Sonoma County VegCAMP Class	CWHR	Ecological Restoration Acreage	Fuel Break Acreage	Total Acreage
Wetland/Riparian Total	—	—	—	*17.3*
Developed/Disturbed/Barren[1]				
Nonnative forest and woodland	Urban	1.6	—	**1.6**
Developed	Urban	0.4	<0.01	**0.4**
Barren & sparsely vegetated	Barren	0.7	—	**0.7**
Developed/Disturbed/Barren Total	—	—	—	*2.7*
All Habitat Types Total	—	—	—	**4,843.1**

Source: CDFW Sonoma County Vegetation Classification and Mapping Program (VegCAMP), compiled by Ascent in 2022.

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

A list of special-status plant and wildlife species with potential to occur in the project area was compiled by completing a review of the *Jenner Headlands Plant Life: A Summary of Vegetation and Flora 2010* and *Botanical Report for Proposed Timber Harvest Plans* reports (Warner 2010; Warner 2012); the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the US Geological Survey (USGS) quadrangles containing and surrounding the project area (9 quadrangles total; CNDDB 2022a; CNPS 2022); the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2022); and Appendix BIO-3 (Table 9a, Table 9b, and Table 19) in the Program EIR (Volume II) for special-status plants and wildlife that could occur in the Northern California Coast ecoregion. A list of sensitive natural communities with potential to occur in the project area was compiled by completing a CNDDB search of the USGS quadrangles containing and surrounding the project area (CNDDB 2022a) and reviewing Table 3.6-16 (pages 3.6-65 – 3.6-66) in the Program EIR (Volume II) for sensitive natural communities that could occur in the Northern California Coast ecoregion in the habitat types mapped in the project area.

Ascent conducted reconnaissance surveys on September 21–22, 2022, to identify and document sensitive resources (e.g., aquatic habitat, riparian habitat, sensitive natural communities) and to assess the suitability of habitat in the project area for special-status plant and wildlife species. Mapped vegetation types were verified where possible and incidental wildlife observations were recorded.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of reconnaissance-level surveys, and habitat present within the project area as assessed during reconnaissance surveys, a complete list of all species with potential to occur in the vicinity of the proposed project was assembled (Attachment B). Seventy-eight of the special-status plants and 41 of the special-status wildlife from the complete list of species are known or have potential to occur in the project area (Table 4.5-2). These species are discussed in detail under Impact BIO-1 (special-status plants) and Impact BIO-2 (special-status wildlife).

Table 4.5-2 Special-Status Plant and Wildlife Species with Potential to Occur in the Project Area

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Special-Status Plants					
Blasdale's bent grass *Agrostis blasdalei*	—	—	1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 10–1,200 feet in elevation. Blooms May–July. Geophyte.	*May occur*. Coastal prairie habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Franciscan onion *Allium peninsulare* var. *franciscanum*	—	—	1B.2	Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. 10–1,150 feet in elevation. Blooms May–June. Geophyte.	*May occur*. Grassland and woodland habitat with serpentine substrates potentially suitable for this species is present in the project area.
Sonoma alopecurus *Alopecurus aequalis* var. *sonomensis*	FE	—	1B.1	Wet areas, marshes, and riparian banks, with other wetland species. 10–1,190 feet in elevation. Blooms May–July. Perennial.	*May occur*. Wetland and riparian habitat potentially suitable for this species is present in the project area. This species has a documented occurrence from 1997 approximately 0.7 mile southeast of the project area (CNDDB 2022a).
Napa false indigo *Amorpha californica* var. *napensis*	—	—	1B.2	Broadleafed upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 98–2,420 feet in elevation. Blooms April–July. Perennial.	*May occur*. Chaparral and openings in forest or woodland habitat potentially suitable for this species is present in the project area. This species has been documented at Sonoma Land Trust's Little Black Mountain preserve by P. Warner in 2013 in three disjunct locations (Warner 2013). The Little Black Mountain preserve is approximately 0.4 miles north of the Preserve. There are documented historical occurrences from northwest of Cazadero, Austin Creek, and Duncans Mills (Best et al. 1996).
Bent-flowered fiddleneck *Amsinckia lunaris*	—	—	1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10–2,610 feet in elevation. Blooms March–June. Annual.	*May occur*. Grassland and cismontane woodland habitat potentially suitable for this species is present in the project area.
Baker's manzanita *Arctostaphylos bakeri* ssp. *bakeri*	—	SR	1B.1	Serpentine chaparral near coast. Entire species State-listed Rare. This is the State-listed Rare taxon, also known as *Arctostaphylos bakeri* in Title 14. 240–760 feet in elevation. Blooms February–April. Perennial.	*May occur*. Serpentine chaparral habitat near coast potentially suitable for this species is present in the project area.
The Cedars manzanita *Arctostaphylos bakeri* ssp. *sublaevis*	—	SR	1B.2	Serpentine chaparral near coast; typically in canyons and on slopes. 600–2,500 feet in elevation. Blooms February–May. Perennial.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area.
Mt. Tamalpais manzanita *Arctostaphylos montana* ssp. *montana* synonym: *Arctostaphylos hookeri* ssp. *montana*	—	—	1B.3	Serpentine chaparral. 520–2,500 feet in elevation. Blooms February–April. Perennial.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Rincon Ridge manzanita *Arctostaphylos stanfordiana* ssp. *decumbens*	—	—	1B.1	Chaparral, cismontane woodland. Highly restricted endemic to red rhyolites in Sonoma County. 290–1,230 feet in elevation. Blooms February–April. Perennial.	*May occur*. Chaparral and cismontane woodland habitat potentially suitable for this species is present in the project area. Rhyolite rocks are present in the northwestern corner of the project area with these habitat types.
Marin manzanita *Arctostaphylos virgata*	—	—	1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, north coast coniferous forest. On sandstone or granitic. 190–2,300 feet in elevation. Blooms January–March. Perennial.	*May occur*. Sandstone habitat potentially suitable for this species is present in the project area.
Point Reyes Blennosperma *Blennosperma nanum* var. *robustum*	—	SR	1B.2	Coastal prairie, coastal scrub. On open coastal hills in sandy soil. 30–480 feet in elevation. Blooms February–April. Annual.	*May occur*. Coastal prairie and coastal scrub habitat potentially suitable for this species is present in the project area.
Thurber's reed grass *Calamagrostis crassiglumis*	—	—	2B.1	Coastal scrub, marshes and swamps. Usually in marshy swales surrounded by grassland or coastal scrub. 10–170 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Freshwater marshes in grassland and coastal scrub habitat potentially suitable for this species are present in the project area.
The Cedars fairy-lantern *Calochortus raichei*	—	—	1B.2	Serpentine chaparral. Usually on shaded slopes, but also on barrens and talus. 830–1,420 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area.
Coastal bluff morning-glory *Calystegia purpurata* ssp. *saxicola*	—	—	1B.2	Coastal dunes, coastal scrub, coastal bluff scrub, north coast coniferous forest. 30–350 feet in elevation. Blooms April–September. Perennial.	*May occur*. Coastal scrub and conifer forest habitat potentially suitable for this species is present in the project area. This species was documented on a rock outcrop in lower Russian Gulch on the Preserve 0.1 mile southwest of the project area during botanical surveys in 2010 (Warner 2010).
Swamp harebell *Campanula californica*	—	—	1B.2	Bogs and marshes in a variety of habitats; uncommon where it occurs. 3–1,330 feet in elevation. Blooms June–October. Geophyte.	*Known to occur*. This species has a documented occurrence in the project area from a plant checklist P. Warner conducted in 2018 (Calflora 2022). Marsh and other wetland habitat potentially suitable for this species are present in other parts of the project area.
Bristly sedge *Carex comosa*	—	—	2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places. 10–5,320 feet in elevation. Blooms May–September. Geophyte.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Deceiving sedge *Carex saliniformis*	—	—	1B.2	Coastal prairie, coastal scrub, meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 10–780 feet in elevation. Blooms June. Geophyte.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. This species has a documented occurrence from 1991 0.2 mile southwest of the project area (CNDDB 2022a).
Rincon Ridge ceanothus *Ceanothus confusus*	—	—	1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland. Known from volcanic or serpentine soils, dry shrubby slopes. 240–3,500 feet in elevation. Blooms February–June. Perennial.	*May occur*. Chaparral and cismontane woodland habitat with volcanic and serpentine soils potentially suitable for this species are present in the project area.
Vine Hill ceanothus *Ceanothus foliosus* var. *vineatus*	—	—	1B.1	Rocky slopes, flats, chaparral, woodland, mixed-evergreen forest. 140–1,010 feet in elevation. Blooms March–May. Perennial.	*May occur*. Chaparral, woodland, and mixed evergreen forest habitat potentially suitable for this species are present in the project area. This species has a documented historical occurrence along the Russian River from 1941 1.3 miles south of the southeast portion of the project area (CCH2 2022).
Mason's ceanothus *Ceanothus masonii*	—	SR	1B.2	Chaparral. Serpentine ridges or slopes in chaparral or transition zone. 750–1,640 feet in elevation. Blooms March–April. Perennial.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area.
Holly-leaved ceanothus *Ceanothus purpureus*	—	—	1B.2	Chaparral, cismontane woodland. Rocky, volcanic slopes. 470–2,560 feet in elevation. Blooms February–June. Perennial.	*May occur*. Volcanic slope habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1964 1.1 miles northwest of the project area (CNDDB 2022a).
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	—	—	1B.2	Ultramafic. Chaparral. Serpentine. 600–3,290 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Chaparral habitat with serpentine soils potentially suitable for this species are present in the project area. This species has a documented occurrence from 2014 6.4 miles north of the project area (CCH2 2022).
San Francisco Bay spineflower *Chorizanthe cuspidata* var. *cuspidata*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Closely related to *Chorizanthe pungens*. Sandy soil on terraces and slopes. 10–710 feet in elevation. Blooms April–July. Annual.	*May occur*. Coastal scrub and coastal prairie habitat potentially suitable for this species is present in the project area.
Sonoma spineflower *Chorizanthe valida*	FE	SE	1B.1	Coastal prairie. Sandy soil. 10–170 feet in elevation. Blooms June–August. Annual.	*May occur*. Coastal prairie habitat with sandy soil potentially suitable for this species is present in the project area.

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Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	—	—	2B.1	Marshes and swamps. In fresh or brackish water. 0–660 feet in elevation. Blooms July–September. Perennial.	*May occur*. Freshwater marsh habitat potentially suitable for this species is present in the project area.
Franciscan thistle *Cirsium andrewsii*	—	—	1B.2	Coastal bluff scrub, broadleaved upland forest, coastal scrub, coastal prairie. Sometimes serpentine seeps. 0–500 feet in elevation. Blooms March–July. Perennial.	*May occur*. Broadleaved upland forest, coastal prairie, coastal scrub, and serpentine seep habitat (Berger, pers. comm., 2022) potentially suitable for this species is present in the project area.
Pennell's bird's-beak *Cordylanthus tenuis* ssp. *capillaris*	FE	SR	1B.2	Closed-cone coniferous forest, chaparral. In open or disturbed areas on serpentine within forest or chaparral. 290–710 feet in elevation. Blooms June–September. Annual.	*May occur*. Chaparral habitat with serpentine soils potentially suitable for this species is present in the project area.
Baker's larkspur *Delphinium bakeri*	FE	SE	1B.1	Broadleafed upland forest, coastal scrub, valley and foothill grassland. Only site occurs on northwest-facing slope, on decomposed shale. Historically known from grassy areas along fencelines too. 340–680 feet in elevation. Blooms March–May. Perennial.	*May occur*. Broadleafed upland forest, coastal scrub, and grassland habitat on northwest facing slopes with shale potentially suitable for this species is present in the project area. There is critical habitat for this species located 5.5 miles southeast of the project area (USFWS 2022).
Golden larkspur *Delphinium luteum*	FE	SR	1B.1	Chaparral, coastal prairie, coastal scrub. North-facing rocky slopes. 0–330 feet in elevation. Blooms March–May. Perennial.	*May occur*. Chaparral, coastal prairie, and coastal scrub habitat potentially suitable for this species is present in the project area.
Western leatherwood *Dirca occidentalis*	—	—	1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. 80–1,400 feet in elevation. Blooms January–March. Perennial.	*May occur*. Forest and woodland habitat potentially suitable for this species is present in the project area.
Greene's narrow-leaved daisy *Erigeron greenei*	—	—	1B.2	Ultramafic. Chaparral. Serpentine and volcanic substrates, generally in shrubby vegetation. 290–2,740 feet in elevation. Blooms May–September. Perennial.	*May occur*. Chaparral habitat with volcanic and serpentine substrates potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1943 approximately 2 miles north of the project area (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Serpentine daisy *Erigeron serpentinus*	—	—	1B.3	Serpentine scrub, streamsides. 390–1,320 feet in elevation. Blooms May–August. Perennial.	*Known to occur*. This species has two documented occurrences in the project area (CCH2 2022) and was observed in the Preserve during botanical surveys conducted in 2010 (Warner 2010). Serpentine scrub and streamside habitat potentially suitable for this habitat is present in multiple locations in the project area.
Supple daisy *Erigeron supplex*	—	—	1B.2	Coastal bluff scrub, coastal prairie, coastal scrub. Usually in grassy sites. 30–170 feet in elevation. Blooms May–July. Perennial.	*May occur*. Coastal scrub and coastal prairie habitat potentially suitable for this species is present in the project area.
Snow Mountain buckwheat *Eriogonum nervulosum*	—	—	1B.2	Chaparral. Dry serpentine outcrops, balds, and barrens. 980–6,910 feet in elevation. Blooms May–October. Geophyte.	*May occur*. Chaparral habitat with serpentine substrates potentially suitable for this species is present in the project area.
Bluff wallflower *Erysimum concinnum*	—	—	1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. More or less a coastal generalist within coastal habitat types. 10–200 feet in elevation. Blooms February–July. Annual/Perennial.	*May occur*. Coastal prairie habitat potentially suitable for this species is present in the project area.
Coast fawn lily *Erythronium revolutum*	—	—	2B.2	Bogs and fens, broadleafed upland forest, and north coast coniferous forest. Mesic sites; streambanks. 0–5,250 feet in elevation. Blooms March–July. Geophyte.	*May occur*. Mesic and streambank habitat potentially suitable for this species is present in the project area.
Minute pocket moss *Fissidens pauperculus*	—	—	1B.2	Redwood. North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on streambanks. 30–3,360 feet in elevation. Perennial.	*May occur*. Streams in north coast coniferous forest habitat potentially suitable for this species is present in the project area. This species has a documented historical occurrence along the Russian River 1.7 miles south of the project area (CNDDB 2022a).
Marin checker lily *Fritillaria lanceolata* var. *tristulis*	—	—	1B.1	Coastal bluff scrub, coastal scrub, coastal prairie. Occurrences reported from canyons and riparian areas as well as rock outcrops; often on serpentine. 50–490 feet in elevation. Blooms February–May. Geophyte.	*May occur*. Coastal scrub and coastal prairie habitat potentially suitable for this species is present in the project area.
Fragrant fritillary *Fritillaria liliacea*	—	—	1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 10–1,320 feet in elevation. Blooms February–April. Geophyte.	*May occur*. Coastal scrub, woodland, coastal prairie, and grassland habitat potentially suitable for this species is present in the project area.

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Blue coast gilia *Gilia capitata* ssp. *chamissonis*	—	—	1B.1	Coastal dunes, coastal scrub. 10–660 feet in elevation. Blooms April–July. Annual.	*May occur*. Coastal scrub habitat potentially suitable for this species is present in the project area.
Pacific gilia *Gilia capitata* ssp. *pacifica*	—	—	1B.2	Coastal bluff scrub, chaparral, coastal prairie, valley and foothill grassland. 10–4,420 feet in elevation. Blooms April–August. Annual.	*Known to occur*. This species has documented occurrences in the project area observed during botanical surveys conducted in 2010 (Warner 2010; CNDDB 2022a) and 2018 (Calflora 2022). Chaparral, coastal prairie and grassland habitat potentially suitable for this species is present in other parts of the project area.
Woolly-headed gilia *Gilia capitata* ssp. *tomentosa*	—	—	1B.1	Coastal bluff scrub and valley and foothill grassland. Rocky outcrops on the coast, serpentine. 60–410 feet in elevation. Blooms May–July. Annual.	*Known to occur*. This species was documented in the project area during 2010 botanical surveys (Warner 2010). P. Warner went back to the Preserve in 2011 and documented this species again (CNDDB 2022a). Serpentine grassland with rock outcrop habitat potentially suitable for this species is present in other parts of the project area.
Congested-headed hayfield tarplant *Hemizonia congesta* ssp. *congesta*	—	—	1B.2	Grassy valleys and hills, often in fallow fields; sometimes along roadsides. 60–2,140 feet in elevation. Blooms April–November. Annual.	*Known to occur*. This species has documented occurrences in the project area from 2014 and 2018 (Calflora 2022). Grassy and roadside habitat potentially suitable for this species is present in other parts of the project area.
Short-leaved evax *Hesperevax sparsiflora* var. *brevifolia*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy bluffs and flats. 0–710 feet in elevation. Blooms March–June. Annual.	*May occur*. Coastal prairie habitat potentially suitable for this species is present in the project area. This species has a documented occurrence from 2011 0.5 mile southwest of the project area (CNDDB 2022a).
Point Reyes horkelia *Horkelia marinensis*	—	—	1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy, grassy or wooded coastal bluffs, terraces, dunes. 5–2,550 feet in elevation. Blooms May–September. Perennial.	*May occur*. Coastal scrub and coastal prairie habitat potentially suitable for this species is present in the project area.

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Thin-lobed horkelia *Horkelia tenuiloba*	—	—	1B.2	Broadleaved upland forest and valley and foothill grassland. Sandy soils; mesic openings. 160–1,640 feet in elevation. Blooms May–July. Perennial.	*May occur*. Broadleaved upland forest and grassland habitat potentially suitable for this species is present in the project area. This species has been documented at numerous mesic to dry grassland, chaparral, and woodland sites in western Sonoma County (Best et al. 1996; CCH2 2022).
Small groundcone *Kopsiopsis hookeri* synonym: *Boschniakia hookeri*	—	—	2B.3	North coast coniferous forest. Open woods, shrubby places, generally on *Gaultheria shallon* or *Vaccinium* spp. 390–4,710 feet in elevation. Blooms April–August. Geophyte.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area.
Baker's goldfields *Lasthenia californica* ssp. *bakeri*	—	—	1B.2	Closed-cone coniferous forest, coastal scrub, meadows and seeps, marshes and swamps. Openings. 190–1,710 feet in elevation. Blooms April–October. Perennial.	*May occur*. Coastal scrub, meadows, and freshwater marsh habitat potentially suitable for this species is present in the project area.
Perennial goldfields *Lasthenia californica* ssp. *macrantha*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. 10–610 feet in elevation. Blooms January–November. Perennial.	*May occur*. Coastal scrub habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1950 mapped south of the project area in the vicinity of Jenner, CA (CNDDB 2022a).
Contra Costa goldfields *Lasthenia conjugens*	FE	—	1B.1	Alkali playa, wetland. Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 3–1,480 feet in elevation. Blooms March–June. Annual.	*May occur*. Mesic areas in grassland and cismontane woodland habitat potentially suitable for this species is present in the project area.
Marsh pea *Lathyrus palustris*	—	—	2B.2	Bogs and fens, lower montane coniferous forest, marshes and swamps, north coast coniferous forest, coastal prairie, coastal scrub. Moist coastal areas. 5–460 feet in elevation. Blooms March–August. Perennial.	*May occur*. Mesic habitat potentially suitable for this species is present in the project area. This species has documented occurrences from 1999 and 2018 approximately 6 miles up the coastline from the project area in Fort Ross (Calflora 2022).
Coast yellow leptosiphon *Leptosiphon croceus*	—	SE	1B.1	Coastal bluff scrub, coastal scrub, coastal prairie. 30–490 feet in elevation. Blooms April–June. Annual.	*May occur*. Coastal scrub and coastal prairie habitat potentially suitable for this species is present in the project area.
Jepson's leptosiphon *Leptosiphon jepsonii*	—	—	1B.2	Ultramafic. Chaparral, cismontane woodland. Open to partially shaded grassy slopes. On volcanics or the periphery of serpentine substrates. 180–2,810 feet in elevation. Blooms March–May. Annual.	*May occur*. Chaparral and cismontane woodland habitat with serpentine or volcanic substrates potentially suitable for this species is present in the project area.

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Crystal Springs lessingia *Lessingia arachnoidea*	—	—	1B.2	Coastal scrub and valley and foothill grassland. Grassy slopes on serpentine; sometimes on roadsides. 290–660 feet in elevation. Blooms July–October. Annual.	*May occur*. Serpentine and non-serpentine coastal scrub and grassland habitat potentially suitable for this species are present in the project area.
Coast lily *Lilium maritimum*	—	—	1B.1	Coastal scrub, coastal prairie, and marshes. 10–1,560 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Coastal scrub, coastal prairie, and marsh habitat potentially suitable for this species is present in the project area.
Point Reyes meadowfoam *Limnanthes douglasii* ssp. *sulphurea*	—	SE	1B.2	Coastal prairie, marshes, seeps. 0–460 feet in elevation. Blooms March–May. Annual.	*May occur*. Coastal prairie, marsh, and seep habitat potentially suitable for this species is present in the project area.
Sebastopol meadowfoam *Limnanthes vinculans*	FE	SE	1B.1	Meadows and seeps, vernal pools, valley and foothill grassland. Swales, wet meadows, and marshy areas in valley oak savanna; on poorly drained soils of clays and sandy loam. 50–380 feet in elevation. Blooms April–May. Annual.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Marsh microseris *Microseris paludosa*	—	—	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 10–904 feet in elevation. Blooms April–June. Perennial.	*May occur*. Cismontane woodland, grassland, and coastal scrub habitat potentially suitable for this species is present in the project area.
White-flowered rein orchid *Piperia candida*	—	—	1B.2	North coast coniferous forest, lower montane coniferous forest, broadleafed upland forest. Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 150–5,300 feet in elevation. Blooms May–September. Perennial.	*May occur*. Conifer and broadleafed upland forest habitat potentially suitable for this species is present in the project area.
Point Reyes rein orchid *Piperia elegans* ssp. *decurtata*	—	—	1B.1	Generally dry, open sites, coastal scrub, coastal prairie. 50–610 feet in elevation. Blooms July–October. Perennial.	*May occur*. Coastal prairie and coastal scrub habitat potentially suitable for this species is present in the project area.
North Coast semaphore grass *Pleuropogon hooverianus*	—	ST	1B.1	Broadleafed upland forest, meadows and seeps, north coast coniferous forest. Wet grassy, usually shady areas, sometimes freshwater marsh; associated with forest environments. 150–3,810 feet in elevation. Blooms April–June. Geophyte.	*May occur*. Mesic areas in broadleafed upland forest, meadows and seeps, and coniferous forest habitat potentially suitable for this species is present in the project area.
Oregon polemonium *Polemonium carneum*	—	—	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Moist to dry, open areas. 0–6,010 feet in elevation. Blooms April–September. Perennial.	*May occur*. Coastal prairie, coastal scrub and coniferous forest habitat potentially suitable for this species is present in the project area.

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Hickman's cinquefoil *Potentilla hickmanii*	FE	SE	1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, marshes and swamps. Freshwater marshes, seeps, and small streams in open or forested areas along the coast. 30–490 feet in elevation. Blooms April–August. Perennial.	*May occur*. Freshwater marsh, seep, and stream habitat potentially suitable for this species is present in the project area.
Angel's hair lichen *Ramalina thrausta*	—	—	2B.1	North coast coniferous forest. On dead twigs and other lichens. 240–1,420 feet in elevation. Perennial.	*May occur*. North coast coniferous forest habitat near the coast potentially suitable for this species is present in the project area. This species has a documented occurrence from 2004 3 miles northwest of the project area (CNDDB 2022a).
Point Reyes checkerbloom *Sidalcea calycosa* ssp. *rhizomata*	—	—	1B.2	Marshes and swamps. Freshwater marshes near the coast. 10–320 feet in elevation. Blooms April–September. Geophyte.	*May occur*. Freshwater marsh habitat potentially suitable for this species is present in the project area.
Marin checkerbloom *Sidalcea hickmanii* ssp. *viridis*	—	—	1B.1	Chaparral. Serpentine or volcanic soils; sometimes appears after burns. 0-1,400 feet in elevation. Blooms May–June. Perennial.	*May occur*. Chaparral habitat potentially suitable for this species is present in the project area. This species has a documented occurrence from 2006 0.4 mile southwest of the project area (CCH2 2022).
Purple-stemmed checkerbloom *Sidalcea malviflora* ssp. *purpurea*	—	—	1B.2	Broadleafed upland forest, coastal prairie. Meadows, open coastal forest, prairie. 50–280 feet in elevation. Blooms May–June. Geophyte.	*May occur*. Meadows, open coastal forest, and coastal prairie habitat potentially suitable for this species is present in the project area.
Scouler's catchfly *Silene scouleri* ssp. *scouleri*	—	—	2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. 0–1,970 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coastal prairie and grassland habitat potentially suitable for this species is present in the project area.
Hoffman's bristly jewelflower *Streptanthus glandulosus* ssp. *hoffmanii*	—	—	1B.3	Chaparral, cismontane woodland, valley and foothill grassland. Moist, steep rocky banks, in serpentine and non-serpentine soil. 190–2,510 feet in elevation. Blooms March–July. Annual.	*May occur*. Chaparral, woodland, and grassland habitat potentially suitable for this species is present in the project area. This species has a documented occurrence 0.2 mile south-southwest of project area (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Three Peaks jewelflower *Streptanthus morrisonii* ssp. *elatus* (synonym: *Streptanthus morrisonii*)	—	—	1B.2	Chaparral. Serpentine barrens, outcrops, and talus. 290–2,680 feet in elevation. Blooms June–September. Perennial.	*May occur*. Chaparral serpentine habitat potentially suitable for this species is present in the project area. *Streptanthus morrisonii* has a documented occurrence along Austin Creek 1.2 miles west of the project area (CCH2 2022). California Consortium of Herbaria maps all subspecies under *Streptanthus morrisonii* (CCH2 2022). *Streptanthus morrisonii* ssp. *elatus* has documented occurrences in the two quads Fort Ross and Cazadero directly north of the project area (Calflora 2022).
Dorr's Cabin jewelflower *Streptanthus morrisonii* ssp. *hirtiflorus*	—	—	1B.2	Chaparral and closed-cone coniferous forest. On the serpentine barrens at the head of Austin Creek. 600–2,690 feet in elevation. Blooms June. Perennial.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area.
Morrison's jewelflower *Streptanthus morrisonii* ssp. *morrisonii*	—	—	1B.2	Ultramafic. Chaparral. Serpentine outcrops in the Austin Creek area. 390–1,920 feet in elevation. Blooms May–September. Perennial.	*May occur*. Chaparral serpentine habitat potentially suitable for this species is present in the project area. *Streptanthus morrisonii* has a documented occurrence along Austin Creek 1.2 miles west of the project area (CCH2 2022). California Consortium of Herbaria maps all subspecies under *Streptanthus morrisonii* (CCH2 2022). *Streptanthus morrisonii* ssp. *morrisonii* has two historical documented occurrences from 1947 and 1950 and a documented occurrence from 1986 along Gilliam Creek 5.5 miles northeast of project area (Calflora 2022; CNDDB 2022).
Whiteworm lichen *Thamnolia vermicularis*	—	—	2B.1	Chaparral, valley and foothill grassland. On rocks derived from sandstone. Perennial.	*May occur*. Chaparral and grassland habitat in sandstone derived soils potentially suitable for this species is present in the project area.
Two-fork clover *Trifolium amoenum*	FE	—	1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 10–1,020 feet in elevation. Blooms April–June. Annual.	*May occur*. Grassland habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Santa Cruz clover *Trifolium buckwestiorum*	—	—	1B.1	Coastal prairie, broadleafed upland forest, cismontane woodland. Grassy or disturbed areas. 340–2,010 feet in elevation. Blooms April–October. Annual.	*May occur*. Coastal prairies, broadleafed upland forest, and cismontane woodland habitat potentially suitable for this species is present in the project area.
Monterey clover *Trifolium trichocalyx*	FE	SE	1B.1	Openings, burned areas, and roadsides. Sandy soils. 100–1,000 feet in elevation. Blooms April–June. Annual.	*May occur*. Openings and roadside habitat with sandy soils potentially suitable for this species is present in the project area. This species was first thought to be endemic to Monterey County but was documented in 2011 (CCH2 2022), 2014, and 2017 (CNDDB 2022a) in Mendocino County.
San Francisco owl's-clover *Triphysaria floribunda*	—	—	1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate (such as at Point Reyes). 3–500 feet in elevation. Blooms April–June. Annual.	*May occur*. Coastal prairie, coastal scrub, and grassland habitat potentially suitable for this species is present in the project area.
Coastal triquetrella *Triquetrella californica*	—	—	1B.2	Coastal bluff scrub, coastal scrub. 30–330 feet in elevation. Perennial.	*May occur*. Coastal scrub habitat potentially suitable for this species is present in the project area.
Special-Status Wildlife					
Amphibians and Reptiles					
California giant salamander *Dicamptodon ensatus*	—	SSC	—	Meadows and seeps within north coast coniferous forest, and riparian forest. Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	*Known to occur*. Forest stands and streams within the project area provide upland and aquatic habitat suitable for this species. Larval California giant salamanders have been documented to occur within Jenner Gulch and East Branch Russian Gulch (FEC 2010).
California red-legged frog *Rana draytonii*	FT	SSC	—	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	*Known to occur*. The species has been documented to occur within the project area along the East Fork Sheephouse Creek (CNDDB 2022a). The other perennial streams and wetlands within the project area may also provide aquatic habitat suitable for the species. The entirety of the project area is potentially upland and dispersal habitat.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Foothill yellow-legged frog *Rana boylii*	—	SSC	—	Largely confined to areas directly adjacent to partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis. North Coast population not listed under CESA.	*Known to occur*. Streams and adjacent uplands within the project area provide habitat suitable for this species. Foothill yellow-legged frogs were detected during focused surveys on the project area in East Branch Russian Gulch (FEC 2010).
Red-bellied newt *Taricha rivularis*	—	SSC	—	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 0.6 mile to breed, typically in streams with moderate flow and clean, rocky substrate.	*Known to occur*. Streams and adjacent uplands are within the project area provide habitat suitable for this species. Red-bellied newt larvae have been detected in Mainstem Russian Gulch (FEC 2010).
Western pond turtle *Emys marmorata*	—	SSC	—	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	*May occur*. The portions of Russian Gulch and Jenner Gulch within the project area where these streams and associated narrow riparian areas are located adjacent to grasslands provide habitat potentially suitable for this species. The creeks within forested habitats in the project area are not likely to be suitable because the forest canopy does not provide the needed basking sites.
Birds					
American peregrine falcon *Falco peregrinus anatum*	FD	SD FP	—	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape, depression, or ledge in an open site.	*Known to occur*. American peregrine falcons are known to occur in the project area (FEC 2010). While the species is known to occur in the project area, it is unlikely that nesting would occur due to a lack of nesting habitat suitable for American peregrine falcons. However, foraging habitat is present in the project area.
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	—	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	*Known to occur*. Bald eagles have been documented in the project area (FEC 2010). Larger trees on the project area could be potential nesting habitat for this species, due to the proximity to the Russian River; however, nesting eagles have not been documented on the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Bryant's savannah sparrow *Passerculus sandwichensis alaudinus*	—	SSC	—	Coastal prairie and tidal marshes of northern California within the fog belt from Humboldt Bay south to Morrow Bay.	*Known to occur*. The species has been documented in the project area (FEC 2010). The grassland portions of the project area support nesting and foraging habitat for this species.
Burrowing owl *Athene cunicularia*	—	SSC	—	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	*Known to occur*. The species has been documented in the project area (FEC 2010). Grasslands in the western half of the project area where vegetation is kept low by grazing may provide wintering habitat suitable for the species; however, the project is outside of the nesting range of the species.
Golden eagle *Aquila chrysaetos*	—	FP	—	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	*Known to occur*. The species has been documented to occur in the project area (FEC 2010). Large trees in the project area may support nesting; however, no nests have been observed in the project area.
Grasshopper sparrow *Ammodramus savannarum*	—	SSC	—	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	*Known to occur*. The species has been documented to occur in the project area (FEC 2010). The grassland portions of the project area provide habitat suitable for the species.
Marbled murrelet *Brachyramphus marmoratus*	FT	SE	—	Lower montane coniferous forest, old growth, redwood. Feeds near-shore; nests inland along coast from Eureka, CA to Oregon border and from Half Moon Bay, CA to Santa Cruz, CA. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas fir.	*May occur*. While there are no documented occurrences of the species within the project area or Russian River drainage, the nearest documented occurrence is approximately 17 miles north of the project area. A portion of the project area was evaluated for suitable nesting trees in 2015 during consultation related to the previously approved Timber Harvest Plan, and several large trees were determined by CDFW to not be suitable (Sonoma Land Trust 2015). However, the project area contains other large Douglas fir and coast redwood trees that may provide suitable nesting habitat for the species, and the cryptic nature of the species makes it possible that existing nests in the project area have gone undetected.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Northern spotted owl *Strix occidentalis caurina*	FT	ST SSC	—	North coast coniferous forest, old growth, redwood. Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris and space under canopy.	*Known to occur*. The species has been documented to occur in the project area (CNDDB 2022b, FEC 2010). The dense forested habitats in the project area provide nesting and foraging habitat suitable for this species.
Northern harrier *Circus hudsonius*	—	SSC	—	Coastal salt and freshwater marsh. Nest and forage in grasslands. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	*Known to occur*. The species has been documented to occur in the project area (FEC 2010) during nesting season. The grassland portions of the project area provide foraging habitat suitable for this species.
Olive-sided flycatcher *Contopus borealis*	—	SSC	—	Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir and lodgepole pine. Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes or other open terrain.	*Known to occur*. The species has been documented to occur in the project area (FEC 2010). Forested portions of the project area provide nesting habitat suitable for this species.
Purple martin *Progne subis*	—	SSC	—	Broadleaved upland forest, lower montane coniferous forest. Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	*Known to occur*. The species has been documented to occur in the project area (FEC 2010).
Tricolored blackbird *Agelaius tricolor*	—	ST SSC	—	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	*May occur*. The project area is at the extreme edge of the species range (CNDDB 2022c). Grazed grassland and small wetlands in the project area may be used as foraging habitat for tricolored blackbird; however, the project lacks the large areas of protected habitat that would be required for colony nesting.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Vaux's swift *Chaetura vauxi*	—	SSC	—	Lower montane coniferous forest, north coast coniferous forest, old growth, redwood. Redwood, Douglas fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	*Known to occur.* The species has been documented to occur in the project area (FEC 2010).
White-tailed kite *Elanus leucurus*	—	FP	—	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	*Known to occur.* The species has been documented to occur in the project area (FEC 2010); however, no nests have been documented. The oak woodland and trees within and along the margins of the grassland habitat on the project area provide nesting and foraging habitat potentially suitable for the species.
Willow flycatcher *Empidonax traillii*	—	SE	—	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2,000-8,000 feet elevation. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	*Known to occur.* Willow flycatchers have been observed in the project area as a fall migrant; however, there has been no reported nesting willow flycatchers in Sonoma County (FEC 2010). The project area does not contain flooded riparian or meadow habitat required for nesting, and the project area is outside of the nesting range of the species (CNDDB 2022d).
Fish					
Chinook salmon - California coastal ESU *Oncorhynchus tshawytscha* pop. 17	FT	—	—	Federal listing refers to wild spawned, coastal, spring and fall runs between Redwood Creek, Humboldt County and Russian River, Sonoma County.	*May occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within Sheephouse Creek, as well as the east branch and mainstem of Russian Gulch.
Coho salmon - central California coast ESU *Oncorhynchus kisutch* pop. 4	FE	SE	—	Federal listing applies to populations between Punta Gorda and San Lorenzo River. State listing includes populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water, and sufficient dissolved oxygen.	*Known to occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, documented to occur within Sheephouse Creek (CDFG 2006), as well as the east branch and mainstem of Russian Gulch (Spencer et al. 2005).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Hardhead *Mylopharodon conocephalus*	—	SSC	—	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	*May occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within lower reaches of Sheephouse Creek.
Northern coastal roach *Hesperoleucus venustus navarroensis*	—	SSC	—	Habitat generalists. Found generally in a wide variety of habitats in the Navarro River and Russian River basins where there is cover (e.g., fallen trees) and where nonnative predators are absent. Most abundant in tributaries with clear, well oxygenated water with dominant substrates of cobble and boulder, and shallow depths (average 4 inches to 20 inches [10–50 cm]) with pools up to approximately 3.3 feet (1 m) deep.	*May occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within lower reaches of Sheephouse Creek.
Pacific lamprey *Entosphenus tridentatus*	—	SSC	—	Found in Pacific Coast streams north of San Luis Obispo County; however, regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temperatures between 12–18 degrees C. Ammocoetes need soft sand or mud.	*May occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within Sheephouse Creek, as well as the east branch and mainstem of Russian Gulch.
Riffle sculpin *Cottus gulosus*	—	SSC	—	Found in headwater streams with cold water and rocky or gravelly substrate. Prefers permanent streams where the water does not exceed 77–79 degrees Fahrenheit, with oxygen levels near saturation.	*May occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within Sheephouse Creek, as well as the east branch and mainstem of Russian Gulch.
Russian River tule perch *Hysterocarpus traskii pomo*	—	SSC	—	Low elevation streams of the Russian River system. Requires clear, flowing water with abundant cover. They also require deep (i.e., greater than approximately 3.3 feet [1 m]) pool habitat.	*Known to occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, documented to occur within Sheephouse Creek (CDFG 2006).
Sacramento hitch *Lavinia exilicauda exilicauda*	—	SSC	—	Sacramento hitch inhabits warm, lowland, waters including clear streams, turbid sloughs, lakes, and reservoirs. In streams they are generally found in pools or runs among aquatic vegetation, although small individuals will also use riffles.	*May occur:* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within Sheephouse Creek.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Steelhead - central California coast Distinct Population Segment *Oncorhynchus mykiss irideus* pop. 8	FT	—	—	From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	*Known to occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, documented to occur within Sheephouse Creek (CDFG 2006).
Steelhead - northern California Distinct Population Segment *Oncorhynchus mykiss irideus* pop. 16	FT	—	—	Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead.	*Known to occur.* This distinct population segment has been documented to occur on the project area within the mainstem and east branch of Russian Gulch (FEC 2010). Critical habitat is designated for the distinct population segment within these creeks.
Western brook lamprey *Lampetra richardsoni*	—	SSC	—	Species ranges from Southeastern Alaska to California and inland to the Sacramento and San Joaquin River drainages. Requires cold clear water and clean gravel new cover for spawning (Moyle et al. 2015).	*May occur.* Likely not found in Jenner Gulch due to complete fish passage blockage downstream from the project area (CNDDB 2022e); however, could occur within Sheephouse Creek, as well as the east branch and mainstem of Russian Gulch.
Invertebrates					
Behren's silverspot butterfly *Speyeria zerene behrensii*	FE	—	—	Coastal prairie. Restricted to the Pacific side of the coast ranges, from Point Arena to Bodega Bay. Inhabits coastal terrace prairie habitat. Foodplant is *Viola* spp.	*May occur.* Coastal prairie habitat present on the western portion of the project area is potentially suitable for the species, and *Viola* spp. were observed during reconnaissance survey.
California freshwater shrimp *Syncaris pacifica*	FE	—	—	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	*May occur S*treams in the project area provide habitat potentially suitable for the species.
Monarch - California overwintering population *Danaus plexippus* pop. 1	FC	—	—	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	*May occur.* Potentially suitable winter roost habitat for the species is present on the project area; although the eucalyptus and cypress on the project area are in groves that are likely too small to support winter roosting.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE	—	—	Coastal dunes. Restricted to the foggy, coastal dunes/hills of the Point Reyes peninsula north to the Russian River; extirpated from coastal San Mateo County. Larval foodplant thought to be *Viola adunca*.	*May occur.* Coastal prairie habitat potentially suitable for the species is present in the western portion of the project area, and *Viola* spp. were observed during reconnaissance-level survey; however, the project area is just north of the northern extent of the species range and the species.
Mammals					
American badger *Taxidea taxus*	—	SSC	—	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	*Known to occur.* The species is documented to occur within the grassland portions of the project area (FEC 2010). The species is likely confined to grasslands and oak woodlands within the project area.
Pallid bat *Antrozous pallidus*	—	SSC	—	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	*Known to occur.* The species is documented to occur within the project area (FEC 2010). Cavities in large trees and unused structures on the project area may provide roosts for this species.
Ringtail *Bassariscus astutus*	—	FP	—	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Often found, but not limited to, within 0.6 mile of a permanent water source.	*May occur.* The project area contains suitable forested and riparian habitat for this species. There are no documented occurrences in the project region, although the species in not tracked in the CNDDB.
Sonoma tree vole *Arborimus pomo*	—	SSC	—	North coast coniferous forest, old growth, redwood. North coast fog belt from Oregon border to Sonoma County. In Douglas fir, redwood, and montane hardwood-conifer forests. Feeds almost exclusively on Douglas fir needles. Will occasionally take needles of grand fir, hemlock, or spruce.	*Known to occur.* The species has been documented to occur within portions of the project area (FEC 2010), and the forested habitats within the project area are suitable for this species.
Townsend's big-eared bat *Corynorhinus townsendii*	—	SSC	—	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	*Known to occur.* The species is documented to occur within the project area (FEC 2010). Cavities in large trees and unused structures on the project area may provide roosts for this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Western red bat *Lasiurus blossevillii*	—	SSC	—	Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	*Known to occur*. The species is documented to occur within the project area (FEC 2010). This species roosts in dense foliage of broadleaved trees species, and suitable roosting sites may be present within the project area.

[1] Legal Status Definitions: CESA = California Endangered Species Act; CEQA = California Environmental Quality Act; CNDDB = California Natural Diversity Database; CRPR = California Rare Plant Rank; CWHR = California Wildlife Habitat Relationships; ESA = Endangered Species Act; ESU = Evolutionary Significant Unit; DPS= Distinct Population Segment

California Rare Plant Ranks (CRPR):

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

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

CRPR Threat Ranks:

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

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

0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

State: FP = Fully Protected (legally protected)

SSC = Species of Special Concern (no formal protection other than CEQA consideration)

SE = State Listed as Endangered (legally protected)

ST = State Listed as Threatened (legally protected)

SD = State Delisted (no formal protection other than CEQA consideration)

SR = State Rare (legally protected under the Native Plant Protection Act

Federal: FE = Federally Listed as Endangered (legally protected)

FT = Federally Listed as Threatened (legally protected)

FC = Federal Candidate for Listing

FD = Federal Delisted (no formal protection other than CEQA consideration)

[2] Potential for Occurrence Definitions

May occur: Suitable habitat is available in the treatment area; however, there are little to no other indicators that the species might be present.

Known to occur: The species, or evidence of its presence, has been reported by others.

Sources: CNDDB 2022a; CNDDB 2022b; CNDDB 2022c; CNDDB 2022d; CNDDB 2022e; CNPS 2022; Jepson 2022; Moyle et al. 2015; Tukman and Kass 2022; FEC 2010; USFWS 2022

IMPACT BIO-1

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on the 78 special-status plant species listed in Table 4.5-2, as habitat for these species is present and is proposed to be treated in the project area. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments for grassland and most forested communities because the same treatment activities would occur, and treatment would somewhat mimic the natural fire return interval. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth of competing vegetation, opens the tree canopy to allow more light penetration, or removes invasive competitors can be beneficial for some special-status plant populations; however, repeated treatments at too

frequent intervals can have adverse effects on those same special-status plants. In particular, if retreatment occurs in chaparral and coastal scrub communities at frequencies outside the natural fire return interval, special-status plant associated with these community types could be adversely affected through habitat alteration.

A survey of vegetation and flora was conducted by P. Warner in 2010 of the entire Preserve (Warner 2010). Vegetation was classified into the following broad vegetation communities: chaparral/scrub, eucalyptus, grassland, oak woodland, redwood forest, redwood/Douglas fir, and serpentine wildflower fields (Warner 2010). Grassland assessments were conducted on the Preserve where sixteen herb-dominated pastures, fields, and meadows were surveyed on the property. Grassland habitat was the only vegetation community to be surveyed. Rare plant protocol surveys were also conducted concurrently with the grassland assessments but did not cover all the area within the grassland assessments. During these rare plant protocol surveys in 2010, no federally or State-listed plant species were observed. Five special-status plant species have been observed on the Preserve in the project area, one of which Warner did not observe during his 2010 surveys (Calflora 2022; CCH2 2022; CNDDB 2022a; Warner 2010). The special-status plant species observed include coastal bluff morning-glory (CRPR 1B.2), swamp harebell (CRPR 1B.2), serpentine daisy (CRPR 1B.3), and Pacific gilia (CRPR 1B.2) (Warner 2010).

Additionally, a botanical and wetland survey was conducted for a timber harvest plan (THP) in 2012 in three areas of the Preserve proposed for timber harvesting (Warner 2012), which overlap with portions of the project area. During the botanical surveys of the three THP areas in 2012, no special-status plant species were observed. Although this report was comprehensive in the three THP areas, the project area was not analyzed completely. This botanical inventory is also 10 years old, so additional protocol-level botanical surveys would be required prior to implementing treatments.

Of the 78 special-status plant species that are known to or may be present in the project area, eight species – Sonoma alopecurus, swamp harebell, bristly sedge, Bolander's water-hemlock, marsh pea, Point Reyes meadowfoam, Sebastopol meadowfoam, and Point Reyes checkerbloom – are typically associated with wetlands (e.g., freshwater emergent wetlands, freshwater forested/shrub wetlands, springs, seeps, wet meadows) (Table 4.5-2). Forty-seven special-status plant species – including Blasdale's bent grass, Sonoma spineflower, Point Reyes horkelia, Point Reyes rein orchid, and coastal triquetrella – are associated with upland habitats that are present in the project area. The remaining 23 special-status plant species – including Napa false indigo, deceiving sedge, congested-headed hayfield tarplant, Contra Costa goldfields, and two-fork clover – are facultative species, meaning they may be found in both wetland and upland habitats (Table 4.5-2).

As described below in Section 4.10, "Hydrology and Water Quality," pursuant to SPR HYD-4, WLPZs ranging from 50 to 150 feet adjacent to all Class I and Class II streams and lakes (defined under Forest Practice Rules as a permanent natural body of water of any size, or an artificially impounded body of water having a surface area of at least 1 acre; CAL FIRE 2020) within the project area would be implemented and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV (e.g., drainage canals, irrigation ditches) streams for prescribed burning, mechanical treatment, manual treatment, and herbicide application, which would minimize some adverse effects on pond- and streambank-associated species. SPR HYD-4 requires the retention of at least 75 percent of surface cover and undisturbed area within WLPZs for wildlife habitat. However, the WLPZ is not a no-disturbance buffer as manual treatments within WLPZs are permitted and up to 25 percent of vegetative cover may be removed, per SPR HYD-4, which could potentially result in loss of special-status plants in streambank, wetland, spring, and seep habitat. Therefore, implementation of WLPZ restrictions under SPR HYD-4 would not be sufficient in protecting special-status plants within the WLPZ. Furthermore, there may be additional wetland habitats in the project area (e.g., meadow, spring, and seep) habitat suitable for special-status plants outside of any WLPZ as well as ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules). Wetland delineations would be conducted to determine if other wetland habitats are located within treatment areas; where wetland habitats are delineated, no-disturbance buffers of at least 25 feet would be established around the wetland (per Mitigation Measure BIO-4). Although these measures would avoid and minimize some adverse effects on special-status plants typically associated with wetlands, habitat potentially suitable for the 23 facultative special-status plant species (i.e., associated with both wetland and upland areas) and the 48 upland special-status plant species would not be avoided under SPR HYD-4 and Mitigation Measure BIO-4. As a result, SPR BIO-7 would be required, which would require a survey for special-status plants before implementing treatments in any habitat potentially suitable for special-status plants, including wetlands. If

special-status plant species are found during implementation of SPR BIO-7, Mitigation Measure BIO-1a and/or Mitigation Measure BIO-1b would be required, and no disturbance buffers would be established around plants listed under the California Endangered Species Act (CESA) and other non-listed special-status plants, which would include special-status plants in both wetland and upland habitat. For wetland habitats containing special-status plants, a no-disturbance buffer of 50-feet around the wetland would be required.

SPR BIO-7 would apply to all treatment activities, including maintenance treatments, and protocol-level surveys for special-status plants would be conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018a, or current version) prior to implementing prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory in any habitat potentially suitable for special-status plants, which would include upland habitat that could potentially contain species that are growing outside of wetlands. Pursuant to SPR BIO-7, surveys would not be required for those special-status plants not listed under ESA or CESA, if the target special-status plant species is an herbaceous annual species, stump-sprouting species, or geophyte species, and the specific treatments may be carried out during the dormant season for that species or when the species has completed its annual life cycle, provided the treatment would not alter habitat in a way that would make it unsuitable for the special-status plants to reestablish following treatment, or destroy seedbanks, stumps, or roots, rhizomes, bulbs and other underground parts of special-status plants. However, this would require that treatments in habitat potentially suitable for these special-status plants be restricted to the dormant season for these species and to treatments that do not disturb below the soil surface (i.e., manual treatments, prescribed burning, prescribed herbivory) without prior knowledge of their presence, which may unnecessarily or infeasibly constrain treatment implementation. In this case, surveys could be conducted to determine presence or absence and, depending on the results, may provide greater flexibility in terms of the timing and types of treatments.

Thirty-eight of the 78 special-status plant species that may occur within the project area are herbaceous annual species or geophytes, as indicated in Table 4.5-2. Impacts on these species would be avoided by treatment activities that do not kill or remove vegetation or disturb the soil (i.e., manual treatment, prescribed burning, prescribed herbivory) during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October–December (Levine et. al 2008). Treatment activities that could potentially kill or remove seeds, stumps, and underground root structures (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted without prior implementation of SPR BIO-7. If treatments that do not kill or remove vegetation or disturb the soil (e.g., manual treatments, prescribed fire, and prescribed herbivory) cannot be completed in the dormant season and would be implemented during the growing period of annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified special-status plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below. Thirty-nine of the 78 special-status plant species that have potential to occur within the project area are perennial species, which could not be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes; therefore, protocol-level surveys under SPR BIO-7 would be necessary to identify them prior to implementing treatment activities regardless of the timing of treatments. Additionally, bluff wallflower can be either annual or perennial. If found in the project area during protocol-level surveys the lifeform of the population would need to be identified to determine proper mitigation measures.

Where protocol-level surveys are required (pursuant to SPR BIO-7) and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, would be implemented to avoid loss of identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet would be established around the area occupied by the species within which prescribed burning, mechanical treatment, manual treatment, and herbicide application, would not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from the proposed treatment in the occupied habitat area. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects would need to be made in consultation with the California Department of Fish and Wildlife (CDFW) and/or USFWS, depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants, under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance

measures or design alternatives to reduce impacts would be identified. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants would be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants would be maintained because treatment activities and maintenance treatments would be designed to ensure that treatments, including follow-up maintenance, maintain habitat function for the special-status plant species present.

Conclusion

The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR. This impact on special-status plants is within the scope of the Program EIR, because, within the boundary of the project area, habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special-status plants is also the same, as described above.

As described under Section 1.1.3, "Purpose of the PSA/Addendum," The Wildlands Conservancy proposes to revise requirements under SPR GEO-1 during to allow for suspension of mechanical and prescribed herbivory treatments if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical or prescribed herbivory activities, rather than when there is a minimum 30 percent chance of rain, and to apply this SPR only for prescribed herbivory activities associated with goats and sheep. Without this revision to SPR GEO-1, the objective to use cattle for prescribed herbivory activities could not be achieved. This constitutes a revision to the program description analyzed in the Program EIR.

Requirements under SPR GEO-1 are intended to prevent soil destabilization during precipitation events that could result in adverse effects on special-status plants, if present. Suspension of mechanical and prescribed herbivory treatments in the above-mentioned conditions (e.g., rain, saturated soils) would provide the same level of protection for indirect effects on special-status plants resulting from soil destabilization as the original SPR GEO-1, because these activities would not continue during conditions where soil destabilization could occur. Cattle grazing associated with prescribed herbivory would not be suspended during precipitation event; however, cattle grazing would occur over a larger area than prescribed herbivory efforts using goats and sheep and cattle would be less concentrated than goats and sheep, likely reducing the likelihood of soil destabilization during precipitation events. Further, SPRs and mitigation measures to reduce impacts on special-status plants would still be required where cattle grazing would occur. Pursuant to SPR BIO-1 and SPR BIO-7, impacts on special-status plants would be minimized through avoidance of habitats and through identification of occupied habitat through focused surveys. Pursuant to Mitigation Measure BIO-1a and BIO-1b, protective buffers would be implemented around any identified special-status plant occurrence, and prescribed herbivory (including cattle) would not occur within these buffers. Therefore, proposed revisions to SPR GEO-1 would not result in a substantially more severe significant effect on special-status plants than what was covered in the Program EIR. The text revisions to SPR GEO-1 are shown in underline and strikethrough in the MMRP (Attachment A).

Biological resource SPRs that apply to project impacts under Impact BIO-1 are SPRs AQ-3, AQ-4, BIO-1, BIO-2, BIO-7, BIO-9, SPR GEO-1, SPR GEO-3, SPR GEO-4, SPR GEO-5, and SPR GEO-7. Biological resource mitigation measures that apply to project impacts under Impact BIO-1 are Mitigation Measure BIO-1a and Mitigation Measure BIO-1b. As explained above, impacts on special-status plants resulting from the proposed project, including proposed revisions to SPR GEO-1, would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-2

Initial vegetation treatments and follow-up maintenance treatments could result in direct or indirect adverse effects on special-status wildlife species and habitat suitable for these species within a treatment area, as described in the following sections. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities would occur.

California Giant Salamander, Foothill Yellow-Legged Frog, and Red-Bellied Newt

California giant salamander and red-bellied newt adults are terrestrial, and they migrate to and from perennial streams for breeding (CalHerps 2022a; CalHerps 2022b). Larval California giant salamanders have been documented to occur within Jenner Gulch and East Branch Russian Gulch, and red-bellied newt larvae have been detected in Mainstem Russian Gulch (Table 4.5-2). Additional habitat potentially suitable for these species within the project area includes perennial and intermittent streams and associated uplands, including forest habitat under leaf litter and logs. California giant salamanders are typically found within approximately 165 feet of stream habitat, and red-bellied newts spend dry summer months in areas relatively close to permanent water (i.e., approximately 100 feet). However, during the wet season and heavy summer fogs, both of these species may be found dispersing further into upland habitats. Foothill yellow-legged frog is a highly aquatic species and normally not found farther than a few feet from streams; however, foothill yellow-legged frogs will follow wetted channels and range farther into uplands (i.e., approximately 200 feet) during wet periods where they may shelter under logs and similar structures (CDFW 2018b). Foothill yellow-legged frogs were detected during focused surveys on the project area in East Branch Russian Gulch in 2010 (FEC 2010).

Pursuant SPR BIO-1, if it is determined that adverse effects on California giant salamander, foothill yellow-legged frog, and red-bellied newt can be clearly avoided, then no mitigation would be required. Pursuant to SPR HYD-4, WLPZs ranging from 50 to 150 feet, based on slope, adjacent to all Class I and Class II streams within the project area would be implemented. SPR HYD-4 prohibits operating heavy equipment, equipment fueling, placement of burn piles, and fire ignition within these buffers, which would help avoid impacts. SPRs identified in other resource areas would also help avoid impacts. As described below in Section 4.6, "Geology, Soils, Paleontology, and Mineral Resources," pursuant to SPR GEO-1, mechanical and prescribed herbivory treatments would occur outside the wet season, which would avoid the period when special-status amphibians could be moving the furthest from aquatic habitat. Approximately, the wet season begins with the first frontal rain system depositing a minimum of 0.25 inch of rain after October 15 and ends on April 15. Additionally, mechanized treatments would be avoided 24 hours after a rain event defined as any precipitation resulting in 0.2 inch or greater throughout the year. Implementation of SPR GEO-1 would avoid work when special-status amphibians may be moving the farthest from aquatic habitat during the wet season; however, the species may be present within upland habitat greater than 50 to 150 feet from Class I and Class II streams in the project area year-round. These prohibitions would reduce the likelihood that injury or mortality of special-status amphibians would occur; however, full avoidance of special-status amphibians would not occur if these species are present further than 50 to 150 feet from stream habitat, or if manual treatments implemented within the WLPZ resulted in injury or mortality of these species. The potential for treatment activities and maintenance treatments to result in adverse effects on special-status amphibians was examined in the Program EIR.

After implementation of SPRs HYD-4 and GEO-1, adverse effects on California giant salamander, foothill yellow-legged frog, and red-bellied newt could still occur because California giant salamander and red-bellied newts may be present relatively large distances (i.e., greater than 200 feet) from aquatic habitat throughout the forest habitat in the treatment areas during wet periods. Therefore, SPR BIO-10 would apply and focused surveys for California giant salamander and red-bellied newt would be conducted prior to implementation of prescribed burning, mechanical treatments, manual treatments, and prescribed herbivory treatments. To avoid impacts on foothill yellow-legged frog, a no-disturbance buffer of 200 feet would be implemented adjacent to all perennial (i.e., Class I and Class II) streams, if feasible. If the 200-foot no-disturbance buffer is determined to be infeasible for certain treatments, then SPR BIO-10 would be implemented, and focused surveys for foothill-yellow legged frog, would be conducted within habitat suitable for the species prior to implementation of prescribed burning, mechanical treatments, manual treatments, and prescribed herbivory treatments.

If California giant salamanders, foothill yellow-legged frog, and red-bellied newts are not detected within the treatment areas during focused surveys, then no mitigation for the species would be required. If these species are detected during focused surveys, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, The Wildlands Conservancy would require biological monitoring, stoppage of work if individual animals are found within the work area, and relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit to avoid injury to or mortality of these species.

Habitat function for California giant salamander, foothill yellow-legged frog, and red-bellied newt would be maintained because treatment activities and maintenance treatments would retain large logs (i.e., greater than 24 inches), would not occur within aquatic habitat, and treatments within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover within riparian areas). This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

California Red-Legged Frog

Studies have demonstrated that California red-legged frogs remain very close to breeding habitat during the breeding season and typically do not move more than approximately 300 feet into upland habitats (Bulger et al. 2003; Fellers and Kleeman 2007). However, adult and juvenile California red-legged frog are known to travel through upland habitat (e.g., riparian, woodland, grassland) to move between breeding and nonbreeding sites (e.g., other ponds, deep pools in streams, moist and cool riparian understory, burrows) for access to refugia and foraging habitat, or to disperse to new breeding locations. During migration, California red-legged frogs may travel long distances from aquatic habitat and typically travel in straight lines irrespective of vegetation types and have been documented to move over 1.7 miles between aquatic habitat sites (Bulger et al. 2003).

California red-legged frog has been documented to occur within the project area within small wetland features adjacent to structures in the eastern and western portions of the project area, as well as along the East Fork of Sheephouse Creek (CNDDB 2022a). Sheephouse Creek and the other perennial streams within the project area provide aquatic habitat suitable for California red-legged frog; however, the high winter and spring flows in these creeks likely make the majority of them unsuitable for California red-legged frog breeding (Sonoma Land Trust 2015). However, portions of these creeks within the project area have not been assessed, and the presence of breeding habitat within the project area cannot be ruled out. Wetlands and seeps within the project area are not likely to support breeding California red-legged frogs as they likely do not contain water long enough to support breeding, although these features may support non-breeding frogs. Ponds and other wetlands within approximately 1 mile of the project area may provide breeding habitat suitable for the species. Therefore, California red-legged frog has potential to occur throughout the project area.

WLPZs ranging from 50 to 150 feet, based on slope, would be implemented adjacent to all Class I and Class II streams within the project area per SPR HYD-4, which prohibit driving heavy equipment, equipment fueling, placement of burn piles, and fire ignition within these buffers. In addition, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas that provide habitat suitable for the species using temporary fencing or active herding, pursuant to SPR HYD-3. These prohibitions would reduce impacts on California red-legged frog; however, impacts would not be completely avoided because the species is known to occur farther than 50 to 150 feet from aquatic habitat. In addition, manual activities implemented within the WLPZ may result in adverse effects on California red-legged frogs. The potential for treatment activities and maintenance treatments to result in adverse effects on California red-legged frog was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on California red-legged frog can be clearly avoided by physically avoiding habitat suitable for the species, or by conducting treatments outside of the season when California red-legged frogs are present, then no further action would be required. Under SPR GEO-1, mechanical and prescribed herbivory treatments would occur outside the wet season, which would avoid the sensitive period of the species life history (i.e., the period when frogs could be moving through the majority of the project area). The wet season typically begins with the first frontal rain system depositing a minimum of 0.25 inch of rain after October 15 and ends on April 15. Additionally, mechanized treatments would be avoided 24 hours after a rain event defined as any precipitation resulting in 0.2 inch or greater throughout the year. Implementation of SPR GEO-1 would avoid work when California red-legged frog may be moving within the majority of the project area during the wet season; however, the species may be present within upland habitat greater than 50 to 150 feet from Class I and Class II streams in the project area year-round. Therefore, all adverse effects cannot be clearly avoided, and SPR BIO-10 would apply. Pursuant to SPR BIO-10, protocol surveys for California red-legged frog would be conducted following the guidelines provided by the USFWS (USFWS 2005) prior to implementation of prescribed burning, mechanical treatments, manual treatments, and prescribed herbivory treatments, or presence of California red-legged frog within

the project area would be assumed and Mitigation Measure BIO-2a would be required. If California red-legged frogs are not detected within the treatment area during protocol-level surveys, then no mitigation for the species would be required. If California red-legged frogs are detected during surveys or assumed to be present, under Mitigation Measure BIO-2a, pre-treatment surveys and biological monitoring for treatment activities would be required year-round within upland habitat (i.e., within 300 feet of aquatic habitat). In addition, mechanical treatments would be prohibited within 30 feet of Class III streams (Mitigation Measure BIO-2a).

Habitat function for California red-legged frogs would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover within riparian areas). Within other habitat in the treatment area, existing native herbaceous vegetation would be retained in a mosaic pattern per Mitigation Measure BIO-2a, and logs greater than 24 inches would be retained with preference for retaining the largest logs and those with cavities, for a total of an average of approximately 10 tons per acre. These retention standards would maintain cover for California red-legged frogs. SPRs identified in other resource areas (see Section 4.6, "Geology, Soils, Paleontology, and Mineral Resources,") would also avoid indirect adverse effects to aquatic habitat: SPR GEO-3 (requires stabilization of disturbed soil), SPR GEO-4 (requires erosion monitoring), SPR GEO-5 (requires use of water breaks to drain stormwater), SPR GEO-7 (limits heavy equipment on steep slopes), and HYD-1 (requires compliance with water quality regulations).

Pursuant to Mitigation Measure BIO-2a, and The Wildlands Conservancy contacted USFWS by email on March 3, 2023, to notify them of their proposed avoidance measures and their determination that habitat function would be maintained for California red-legged frog. Mitigation Measure BIO-2a requires consultation with USFWS on their proposed measures to avoid injury to or mortality of California red-legged frog and their determination for California red-legged frog habitat function maintenance. Consultation with USFWS is complete for California red-legged frog and the project-specific measures (see Mitigation Measure BIO-2a in the MMRP for measures; Attachment A) will be implemented by The Wildlands Conservancy.

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

Western Pond Turtle

Habitat potentially suitable for western pond turtle is limited within the project area, because the generally dense tree cover over perennial creeks inhibits the availability of the basking sites needed for western pond turtle. However, the portions of Main Branch Russian Gulch, East Branch Russian Gulch, and Jenner Gulch within the project area where these streams are located adjacent to grasslands have more open canopies and provide aquatic habitat potentially suitable for this species. Additionally, riparian corridors and grasslands within approximately 1,500 feet of these suitable aquatic habitats provide potential upland habitat for this species.

WLPZs ranging from 50 to 150 feet, based on slope, adjacent to all Class I and Class II streams within the treatment areas would be implemented per SPR HYD-4, which prohibits operating heavy equipment, equipment fueling, placement of burn piles and fire ignition within these buffers. These prohibitions would reduce the likelihood that injury or mortality of western pond turtle would occur; however, full avoidance of western pond turtle would not occur if turtles are nesting greater than 50 to 150 feet from stream habitat, or if manual activities implemented within the WLPZ resulted in injury or mortality of the species. The potential for treatment activities and maintenance treatments to result in adverse effects on western pond turtle was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on western pond turtle can be clearly avoided by physically avoiding the habitat suitable for the species, then no surveys or mitigation would be required. However, because western pond turtles and nests may be present relatively large distances (i.e., approximately 1,500 feet) from aquatic habitat in grasslands it is not likely feasible that all habitat potentially suitable for these species can be avoided. As a result, SPR BIO-10 would apply, and focused surveys for western pond turtle and western pond turtle nests would be conducted within habitat suitable for the species prior to implementation of prescribed burning, mechanical treatments, manual treatments, and prescribed herbivory treatments.

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

Habitat function for western pond turtle would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs adjacent to treatment areas would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover within riparian areas). Furthermore, treatments in grasslands that provide upland nesting habitat potentially suitable for western pond turtle would maintain these grasslands and continue to provide suitable nesting habitat for the species. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Marbled Murrelet

Marbled murrelets forage at sea and nest in old growth and older second growth forests, although nesting also may occur in younger forests where remnant old growth trees provide platforms suitable for nesting (Mack et al. 2003). There are no documented occurrences of marbled murrelet within the project area or Russian River drainage. The nearest documented occurrence is approximately 17 miles north of the project area. A portion of the project area was evaluated for suitable nesting trees in 2015 during consultation with CDFW related to the previously approved THP, and the large trees within the THP area were determined by CDFW to be unsuitable (Sonoma Land Trust 2015). While the redwood and Douglas fir forest within the project area is relatively young, the project area may contain individual large Douglas fir and redwood trees outside of the previously evaluated THP area that provide nesting habitat suitable for the species. In addition, the cryptic nature of the species makes it possible that existing nests on the project area have gone undetected. Therefore, marbled murrelet has the potential to nest within the forested portions of the project area that were not previously evaluated for suitable nesting trees during the consultation for the existing THP.

Treatment activities are not likely to result in the removal of marbled murrelet nesting habitat or direct removal of active nests because marbled murrelets nest on platforms in large diameter trees (i.e., greater than 30 inches dbh) (USFS 1995), and treatments would not remove live trees over 10 inches dbh. However, treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) could result in disturbance of nesting marbled murrelets, if these activities occur near a nesting tree, or disruption of feeding flights to and from the nest during the sensitive nesting season (March 24 to September 15) (Mack et al. 2003). Prescribed herbivory would not result in adverse effects on nesting marbled murrelets because it would not occur in habitat suitable for marbled murrelet nesting, and because this activity would not use loud equipment or tools or introduce visual stimuli close enough to a marbled murrelet nest to result in disturbance of the nest. The disturbance of nests and the disruption of feeding due to prescribed burning, mechanical treatments, or noise-generating manual treatments (e.g., chainsaws) may result in the loss of eggs and chicks. The potential for treatment activities to result in adverse effects on marbled murrelets was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on habitat suitable for marbled murrelet can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., nesting season; March 24 to September 15), then further avoidance measures would not be required. If it is not feasible to conduct treatment activities outside of the season of sensitivity, a qualified RPF or biologist would assess the project area for suitable nesting trees pursuant to SPR BIO-10 as described in Methods for Surveying Marbled Murrelets in Forests; a revised Protocol for Land Management and Research (Mack et al. 2003) and in coordination with CDFW and the USFWS. If suitable nesting trees are located within the project area, then surveys for marbled murrelets would be conducted as described in (Mack et al. 2003), or occupancy would be assumed. If surveys detect active nests within the project area, or occupancy is assumed (pursuant to SPR BIO-10) Mitigation Measure BIO-2a would be implemented and potential disturbance to nests would be avoided by implementing buffer distances of up to 0.25 mile; the buffer distance would be dependent on the noise generated by the activity (USFWS 2006).

Habitat function for marbled murrelet would be maintained because treatments would not remove live trees greater than 10 inches dbh, which would result in retention of any large trees suitable for nesting marbled murrelets. In addition, Mitigation Measure BIO-2a would be implemented to retain adjacent screen trees and overlapping canopy to provide lateral and foliar coverage to nesting platforms, provide shade, protection from inclement weather and reduce wind impacts, and reduce exposure to predators. Pursuant to Mitigation Measure BIO-2a, and because this species is listed under ESA, The Wildlands Conservancy must consult with USFWS and CDFW about its determination that mortality, injury, or disturbance would not occur and that habitat function for the species would be maintained.

Pursuant to Mitigation Measure BIO-2a, The Wildlands Conservancy contacted USFWS by email on March 3, 2023, to notify them of their proposed avoidance measures and their determination that habitat function would be maintained for marbled murrelet. On February 24, 2023, The Wildlands Conservancy sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to marbled murrelet and to maintain habitat function in compliance with Mitigation Measure BIO-2a . Refinements to the MMRP that resulted from this consultation included citation of updated protocols for marbled murrelet and additional habitat retention measures. Consultation with USFWS and CDFW is complete for marbled murrelet and the project-specific measures (see Mitigation Measure BIO-2a in the MMRP for measures; Attachment A) will be implemented by The Wildlands Conservancy. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Northern Spotted Owl

The project area and adjacent forest contain habitat suitable for nesting and foraging northern spotted owl, and the species is known to occur within and adjacent to the Preserve (FEC 2010). Regular monitoring is conducted for the species within the Preserve, and there are three known nesting occurrences and multiple other observations for the species (e.g., activity centers, pairs, young, other positive observations) within or on the boundary of the project area (CNDDB 2022b).

Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) could result in disturbance of nesting northern spotted owls in adjacent occupied habitat, if these activities occur during the sensitive portion of the nesting season (February 1 through July 9) (USFWS 2018). Treatment activities that would degrade or remove habitat for northern spotted owl could result in disturbance of nesting owls if these activities occur from February 1 through September 15). The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on habitat suitable for northern spotted owl can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., nesting season), then further avoidance measures would not be required. Because northern spotted owl nesting occurrences are located within and adjacent to the project area, a qualified RPF or biologist would review northern spotted owl occurrence data in the CNDDB and review any recent survey and occurrence data for northern spotted owl on the Preserve that have not been made publicly available (e.g., in the CNDDB) to determine whether a documented northern spotted owl nesting occurrence is present within 0.25 mile of the treatment area under SPR BIO-1. In addition, per SPR BIO-10, surveys following the *USFWS Protocol for Surveying proposed Management Activities that may Impact Northern Spotted Owls* (USFWS 2012) and *Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis- Coast Redwood Region* (USFWS 2019) will occur. If northern spotted owl nests are present, potential impacts on the nest resulting from loud and continuous noise would be avoided by implementing a limited operating period during the northern spotted owl nesting season (February 1 through July 9) for mechanical treatments and manual treatments, within up to 0.25 mile of the nest, depending on the type of disturbance (USFWS 2020; USFWS 2012; USFWS 2019). Potential impacts resulting from treatments within un-surveyed nest or roost habitat with a high probability of northern spotted owl occupancy would be avoided by implementing a limited operating period, from February 1 through July 9, within this habitat if habitat is expected to be modified (tree and understory removal), a limited operating period for prescribed burning of February 1 through September 15 within 0.25 mile of un-surveyed nest or roost habitat with a high probability of northern spotted owl occupancy. Prescribed herbivory would not result in adverse effects on nesting spotted owls because it would not occur in nesting habitat suitable for the species, and because this activity would not involve the use of loud and continuous noise from

equipment or tools, significant habitat modification, or substantial visual stimuli from human presence close enough to a northern spotted owl nest to result in disturbance of the nest.

Habitat function for northern spotted owl would be maintained because treatments would not remove live trees greater than 10 inches dbh, which would result in retention of larger trees that are the most likely features to provide nesting habitat for northern spotted owl. Although snags up to 24 inches dbh would be removed, at least three to five snags per acre would be retained (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). In forest habitats determined to be occupied (i.e., during previous surveys) or assumed to be potentially occupied by northern spotted owl (e.g., forests with canopy cover greater than 60 percent, complex understory structure, late seral characteristics), treatments would be designed to reduce canopy cover by no more than 20 percent from existing conditions, and a minimum of 60 percent canopy cover would be retained. Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR BIO-4), which would retain riparian habitat for foraging and nesting owls. Furthermore, Mitigation Measure BIO-2a would require retention of occupied habitat as described in *Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis- Coast Redwood Region* (USFWS 2019). Pursuant to Mitigation Measure BIO-2a, and because this species is listed under ESA, The Wildlands Conservancy must consult with USFWS and CDFW about its determination that mortality, injury, or disturbance would be avoided, and habitat function would be maintained. For the reasons summarized above, The Wildlands Conservancy determined that implementation of treatments would maintain habitat function for northern spotted owl and consulted with USFWS and CDFW to seek technical input on this determination, as required.

Pursuant to Mitigation Measure BIO-2a, The Wildlands Conservancy contacted USFWS by email on March 3, 2023 to notify them of their proposed avoidance measures and their determination that habitat function would be maintained for northern spotted owl. On February 24, 2023, The Wildlands Conservancy sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to northern spotted owl and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Refinements to the project description that resulted from this consultation included citation of updated protocols for northern spotted owl. Consultation with USFWS and CDFW is complete for northern spotted owl and the project-specific measures (see Mitigation Measure BIO-2a in the MMRP for measures; Attachment A) will be implemented by The Wildlands Conservancy. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Special-Status Birds

Thirteen other special-status bird species may occur within the project area; however, not all of these species have the potential to nest within the treatment areas (Table 4.5-2). Habitat suitable for nesting American peregrine falcon, burrowing owl, northern harrier, tricolored blackbird, and willow flycatcher is not present within the project area; however, potential foraging habitat is present for all of these species and potential wintering habitat is present for burrowing owls. The grasslands within treatment areas provide nesting and foraging habitat potentially suitable for Bryant's savannah sparrow and grasshopper sparrow. The forest and woodlands within the project area provide nesting habitat potentially suitable for bald eagle, golden eagle, olive-sided flycatcher, purple martin, Vaux's swift, and white-tailed kite (Table 4.5-2). Initial and maintenance treatments including mechanical treatments, manual treatments, prescribed burning, and prescribed herbivory are not anticipated to have substantial adverse effects (e.g., substantial disruption of access to prey species, or injury or mortality of foraging birds) on foraging American peregrine falcon, northern harrier, tricolored blackbird, and willow flycatcher; however, if conducted in the nesting bird season (February 1 through August 31), these activities may result in the disturbance of active nests of bald eagle, Bryant's savannah sparrow, grasshopper sparrow, golden eagle, olive-sided flycatcher, purple martin, Vaux's swift, and white-tailed kite if they occur within nesting habitat suitable for these species. Additionally, these treatments could result in adverse effects on burrowing owls overwintering in the project area if conducted during the burrowing owl dispersal and overwintering season (September 1–January 31). Nest disturbance or winter burrowing owl burrow disturbance, as a result of auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel), may result in nest abandonment and the loss of eggs and chicks. The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on nesting special-status birds can be clearly avoided by physically avoiding habitat suitable for the species or conducting treatments outside of the season of sensitivity (i.e., nesting bird season, burrowing owl dispersal and overwintering season), then no survey or mitigation would be required. Avoidance of both the nesting bird season and burrowing owl dispersal and overwintering season would not be feasible, because it would preclude the entire year from treatments. If conducting any given treatment outside of the nesting bird season or burrowing owl dispersal and overwintering season is determined to be infeasible, then SPR BIO-10 would apply, and focused nesting bird surveys for bald eagle, Bryant's savannah sparrow, grasshopper sparrow, golden eagle, olive-sided flycatcher, purple martin, Vaux's swift, and white-tailed kite, or winter burrowing owl surveys would be conducted prior to implementation of treatment activities within habitat suitable for these species.

If no active special-status bird nests or active overwintering burrowing owls are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status bird nests are observed during focused surveys, then Mitigation Measures BIO-2a (bald eagle, golden eagle, and white-tailed kite) and BIO-2b (for burrowing owl, Bryant's savannah sparrow, grasshopper sparrow, olive-sided flycatcher, purple martin, and Vaux's swift) would be implemented.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 0.5 mile would be established around active bald eagle and golden eagle nests, 0.25 mile for white-tailed kite nests, 164–1,640 feet for winter burrowing owl burrows (depending on the intensity of the disturbance), and at least 100 feet around the nests of other special-status birds, and no treatment activities would occur within this buffer until the chicks have fledged or the winter burrowing owl burrow is inactive as determined by a qualified biologist. Additionally, snags containing bald eagle or golden eagle nests would not be removed pursuant to the Bald and Golden Eagle Protection Act.

Habitat function for special-status birds would be maintained because treatment activities would not result in removal of live trees greater than 10 inches dbh, which are the most likely features to provide nesting habitat for special-status birds. Although snags up to 24 inches dbh would be removed, at least three to five snags per acre would be retained (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR BIO-4), which would continue to provide riparian habitat for foraging and nesting.

Pursuant to Mitigation Measure BIO-2a, and because bald eagle, golden eagle, and white-tailed kite are fully protected species under California Fish and Game Code and bald eagle is listed as endangered under CESA, The Wildlands Conservancy must consult with CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, The Wildlands Conservancy determined that implementation of treatments would maintain habitat function for bald eagle, golden eagle, and white-tailed kite and consulted with CDFW to seek technical input on this determination, as required. On February 24, 2023, The Wildlands Conservancy sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to bald eagle, golden eagle, and white-tailed kite and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the project description resulted from this consultation. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Fish and California Freshwater Shrimp

Eleven special-status fish species may occur or are known to occur within the project area: Chinook salmon – California coastal ESU, Coho salmon – Central California coast ESU, hardhead, northern coastal roach, pacific lamprey, riffle sculpin, Russian River tule perch, Sacramento hitch, steelhead – Central California coast Distinct Population Segment, Steelhead - northern California Distinct Population Segment, and western brook lamprey (Table 4.5-2). Additionally, one aquatic invertebrate, California freshwater shrimp, may be present within stream habitat in the project area (Table 4.5-2). The potential for treatment activities and maintenance treatments to result in adverse effects on special-status fish and California freshwater shrimp was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status fish and California freshwater shrimp can be clearly avoided by physically avoiding habitat for these species, then mitigation would not be required. Treatments would not occur within aquatic habitat for these species. WLPZs ranging from 50 to 150 feet adjacent to all Class I

and Class II streams within the treatment areas would be implemented per SPR HYD-4, which prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of burn piles, and fire ignition within the WLPZ. In addition, SPR GEO-1 would require suspending mechanical and prescribed herbivory treatments during periods of heavy precipitation. In addition, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas using temporary fencing or active herding, pursuant to SPR HYD-3. These measures would reduce the likelihood of contaminated runoff reaching the streams that are habitat for special-status fish and California freshwater shrimp due to treatment activities. Therefore, adverse effects on special-status fish and California freshwater shrimp would be clearly avoided through implementation of these SPRs and further mitigation would not be required.

Habitat function for special-status fish and California freshwater shrimp would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat. Furthermore, treatments within WLPZs adjacent to aquatic habitat would be limited pursuant to SPR HYD-4, which requires retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation. This riparian vegetation standard would maintain stream shading and avoid increases in water temperature. In addition, contaminated runoff to aquatic habitat would be avoided because SPR GEO-1 would require suspending mechanical and prescribed herbivory treatments during periods of heavy precipitation and SPR HYD-3 would require that prescribed herbivory treatments are excluded from habitat suitable for these species. Furthermore, as described below in Section 4.6, "Geology, Soils, Paleontology, and Mineral Resources," the following additional SPRs would be implemented to avoid indirect adverse effects to habitat for special-status fish and California freshwater shrimp: SPR GEO-3 (requires stabilization of disturbed soil), SPR GEO-4 (requires erosion monitoring), SPR GEO-5 (requires use of water breaks to drain stormwater), SPR GEO-7 (limits heavy equipment on steep slopes), and HYD-1 (requires compliance with water quality regulations).This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Butterflies

Three special-status butterflies may occur within the project area: Behren's silverspot butterfly, Myrtle's silverspot butterfly, and monarch butterfly. The grasslands in the western most portion of the project area provide habitat potentially suitable for both Behren's silverspot butterfly and Myrtle's silverspot butterfly. Host plants of these species (i.e., *Viola* spp.), were observed in the project area during the SPR BIO-1 reconnaissance-level survey. Habitat suitable for winter roosting monarch butterfly occurs in the project area in dense forested stands adjacent to grasslands. Although the eucalyptus and cypress tree groves in the project area are too small to likely support winter roosting, other tree stands in the project area may be used by overwintering monarchs (Xerces 2017).

Prescribed herbivory would not be implemented within grassland habitat potentially suitable for Behren's silverspot butterfly and Myrtle's silverspot butterfly in the project area. Cattle grazing is an existing activity that is ongoing within grassland habitat for agricultural purposes outside this PSA/Addendum. The other grassland and oak woodland areas in the project area where prescribed herbivory would be implemented are further inland and therefore considered to be outside of the range of these species. In addition, prescribed herbivory is not anticipated to result in an adverse effect on monarch overwintering habitat, because roosting trees would not be removed.

However, prescribed burning, mechanical treatments, and manual treatments would occur in habitat potentially suitable for special-status butterflies. These treatments activities could result in the disturbance of overwintering monarch butterfly roosting stands, which could result in impacts on individual butterflies. In addition, treatment activities within grassland habitat could result in the crushing or burning of host plants and adverse effects on individual Behren's silverspot butterflies and Myrtle's silverspot butterflies. The potential for treatment activities to result in adverse effects on special-status butterflies was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status butterflies can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. Overwintering monarch butterflies can be avoided by avoiding treatment of tree stands during suitable for overwintering monarchs during the overwintering period (September through March) (Xerces 2017). If treatments within monarch overwintering habitat cannot avoid the sensitive season for that species,

SPR BIO-10 would apply, and focused surveys for the species would be required. If no overwintering monarch butterflies are observed during focused surveys, then no additional avoidance measures for this species would be required. If overwintering monarch butterflies are detected, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b potential monarch overwintering stands would be evaluated and treatment activities would be avoided in occupied stands.

Because various life stages of Behren's silverspot butterfly and Myrtle's silverspot butterfly may be present within coastal grassland habitat in the project area year-round, the sensitive season for these species cannot be avoided. Therefore, SPR BIO-10 would apply, and focused surveys for these species would be required, or presence may be assumed. Because the project area is directly adjacent to the range of these species Mitigation Measure BIO-2e (Behren's silverspot butterfly and Myrtle's silverspot butterfly) would be implemented, although the implementation of Mitigation Measure BIO-2e would be informed by the results of the focused surveys. Under Mitigation Measure BIO-2e, no treatment activities would occur within 10 feet of host plants (i.e., *Viola* spp.) in occupied habitat or habitat assumed to be occupied.

Habitat function for overwintering monarch butterfly would be maintained because live trees greater than 10 inches dbh would be retained, and Mitigation Measure BIO-2b would be implemented, which requires a treatment plan that maintains the suitability of monarch butterfly overwintering stands. Habitat function for Behren's silverspot butterfly and Myrtle's silverspot butterfly would be maintained through implementation of SPR BIO-9, which prevents the spread of invasive plants that could outcompete the host plants of these species. In addition, Mitigation Measure BIO-2e requires avoidance of host plants in occupied habitat and requires that unoccupied habitat be treated in a patchy pattern such that all habitat is not treated or not treated in the same year. Furthermore, the host plant for Behren’s silverspot butterfly may benefit from the clearing of overlying debris by prescribed burning (Black and Vaughn 2005).

Pursuant to Mitigation Measure BIO-2e, and because Behren's silverspot butterfly and Myrtle's silverspot butterfly are listed under ESA, The Wildlands Conservancy must consult with USFWS about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, The Wildlands Conservancy determined that implementation of treatments would maintain habitat function for Behren's silverspot butterfly and Myrtle's silverspot butterfly and consulted with USFWS to seek technical input on this determination, as required. Pursuant to Mitigation Measure BIO-2a, The Wildlands Conservancy contacted USFWS by email on March 3, 2023, to notify them of their proposed avoidance measures and their determination that habitat function would be maintained for Behren’s silverspot butterfly and Myrtle’s silverspot butterfly, and also requested technical assistance regarding the current range of these species due to the limited area of current documented populations. USFWS provided additional background information regarding the range of these species and confirmed that both species have potential to occur in the project area. No refinements to the project description resulted from this technical assistance. Consultation with USFWS is complete for Behren’s silverspot butterfly and Myrtle’s silverspot butterfly and the project-specific measures (see Mitigation Measure BIO-2a in the MMRP for measures; Attachment A) will be implemented by The Wildlands Conservancy. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

American Badger

Habitat potentially suitable for American badger is present within grassland and open woodlands in the project area. Treatment activities in these habitats, including prescribed burning, mechanical treatments and prescribed herbivory could result in disturbance of active dens, and potential loss of adults or young through direct mortality, den destruction, or interruption of feeding of young. Manual treatments would not result in adverse effects on American badger dens, because personnel implementing manual treatments would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. Additionally, manual treatments are not likely to occur continuously in the vicinity of a burrow long enough to result in a substantial interruption of feeding. While the likelihood of a badger den being crushed by livestock would be low due to the size and depth of the burrows, the density of goats used for prescribed herbivory, the presence of humans and the associated herding and watch dogs, could result in interruption of feeding and potential loss of young during the American badger maternity season (February 15 through July 1). This impact from prescribed herbivory is not anticipated to occur from cattle grazing as the intensity human presence is low, especially when compared to goats,

and American badgers frequently burrow within rangelands where cattle are present. The potential for treatment activities to result in adverse effects on American badger was examined in the Program EIR.

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

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

Ringtail

Ringtail is primarily nocturnal and typically occurs in riparian areas, forests (including stands of various ages), and shrub habitats. Potential denning locations include rock outcrops, crevices, snags, large hardwoods, large conifers, and areas of dense shrubs. While rock outcrops would not be targeted for treatment activities and live trees larger than 10 inches dbh would not be removed, the removal of snags up to 24 inches and the mastication of areas of dense shrubs may result in disturbance of ringtail dens. The potential for treatment activities, including maintenance treatments, to result in adverse effects on ringtail was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on ringtail can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season; April 15 through June 30), then mitigation would not be required. Outside of the breeding season, resting ringtails would likely flee due to the presence of equipment, vehicles, or personnel, and injury or mortality would not be expected. Prescribed herbivory is not expected to result in adverse effects on ringtail dens because this activity generally would not occur within optimal ringtail denning habitat (e.g., forests with large trees, riparian areas) and would not likely result in the disturbance or removal of den sites. Manual treatments except for snag removal would not result in adverse effects, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. Adverse effects on ringtail would be clearly avoided for mechanical treatments, manual snag removal, and prescribed burning that would occur outside of the ringtail maternity season (April 15 through June 30).

If conducting prescribed burning, mechanical treatments, or manual snag removal outside of the ringtail maternity season is not feasible, then SPR BIO-10 would apply, and presence of ringtail would be assumed or focused surveys for ringtail would be conducted within the treatment areas prior to implementation of treatment activities. Surveys for ringtail would include the use of trail cameras, track plates, and other non-invasive survey methods to determine whether ringtails are present within the treatment area and would be conducted by a qualified RPF or biologist with a valid CDFW Scientific Collecting Permit. If ringtails are not detected during focused surveys, then further mitigation for the species would not be required. If ringtails are detected during focused surveys, then Mitigation Measure BIO-2a would be implemented and additional surveys would be required to determine whether an active ringtail den is present within the treatment area. If an active den is identified by a qualified RPF or biologist, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW. No treatment activities would occur within this buffer until at least the end of the ringtail maternity season.

If the presence of ringtail within the treatment areas is assumed, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2a prior to and during implementation of

prescribed burning, mechanical treatments, and manual snag removal between April 15 and June 30. Avoidance and minimization measures would include but not be limited to den surveys, daily sweeps of treatment areas, and biological monitoring.

Habitat function for ringtail would be maintained because treatment activities would not result in removal of live trees greater than 10 inches dbh, which are the most likely trees to provide den locations for ringtail. Although snags up to 24 inches dbh would be removed, at least three to five snags per acre would be retained (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR HYD-4), which would continue to provide riparian habitat suitable for the species. In the small areas of dense shrub habitat within the project area, thinning or removal of dense shrubs and creation of a mosaic of habitat types would not likely result in a decrease of habitat function, because ringtails often select rest sites and den sites near habitat edges and are tolerant to disturbance (Myers 2010; Wyatt, pers. comm., 2021). Treatment activities would likely create additional edge habitat, which would be used by ringtail.

Pursuant to Mitigation Measure BIO-2a, and because ringtail is a fully protected species under California Fish and Game Code, The Wildlands Conservancy must consult with CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, The Wildlands Conservancy determined that implementation of treatments would maintain habitat function for ringtail and consulted with CDFW to seek technical input on this determination, as required. On February 24, 2023, The Wildlands Conservancy sent a memo to Robynn Swan at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to ringtail and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the project description that resulted from this consultation. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Sonoma Tree Vole

Habitat potentially suitable for Sonoma tree vole is present in the project area including Douglas fir forest. Sonoma tree voles prefer old growth or mixed old growth and mature forest habitat; however, the species can occur in other types of forests. The species nests most often in the canopy of live, large-diameter Douglas fir trees (i.e., greater than approximately 20 inches dbh) (Dunk and Hawley 2009). Treatment activities would not result in removal of living trees greater than 10 inches dbh. While some standing dead trees with dbh up to 24 inches would be removed during treatments, dead trees would not provide sufficient cover for this species and likely would not be used as nest trees by Sonoma tree voles. Therefore, adverse effects on Sonoma tree voles are unlikely to occur and mitigation would not be required.

Habitat function for Sonoma tree vole would be maintained because treatment activities and maintenance treatments would not result in removal of living trees (i.e., conifers, hardwoods) greater than 10 inches dbh which would be the most likely features to be used by this species due to the cover provided by larger trees. The potential for treatment activities and maintenance treatments to result in adverse effects on Sonoma tree vole was examined in the Program EIR. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Bats

Habitat potentially suitable for three special-status bat species—pallid bat, Townsend's big-eared bat, and western red bat—are present within forest habitat, rocky areas, and human-made structures (e.g., barns, outbuildings) in the project area. While rocky areas and outbuildings would not be targeted for treatment activities, and live trees larger than 10 inches dbh would not be removed, the limbing of trees and the removal of snags up to 24 inches may result in disturbance of roosting special-status bats. Per SPR BIO-1, if it is determined that adverse effects on special-status bats can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season), then mitigation would not be required. Adverse effects on special-status bat maternity roosts would be clearly avoided by conducting initial and maintenance treatments outside of the bat maternity season (April 1 through August 31; California Department of Transportation 2004).

Treatment activities, including prescribed burning, mechanical treatments, and manual treatments conducted within habitat suitable for bats during the bat maternity season (April 1 through August 31) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chainsaws, vehicles, personnel) or smoke (e.g., prescribed burning) potentially resulting in abandonment of the roost and loss of young. Prescribed herbivory treatments would not remove foliage from trees, tree cavities, snags, or other potential roosting locations for bats and these treatments would not be expected to result in substantial disturbance to special-status bat roosts. The potential for treatment activities to result in adverse effects on special-status bats was examined in the Program EIR.

If mechanical or manual treatments or prescribed burning would occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for these species would be conducted within habitat suitable for the species prior to initiation of these treatment activities. If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats would be implemented.

Under Mitigation Measure BIO-2b, a no-disturbance buffer of 250 feet would be established around active pallid bat, Townsend's big-eared bat, or western red bat roosts and mechanical treatments and manual treatments would not occur within this buffer. A no-disturbance buffer of 250 feet is necessary to protect sensitive roosts. If special-status bat roosts are identified in a treatment area where prescribed burning is planned, prescribed burning activities would be implemented outside of the bat breeding season, which is April 1 through August 31 (California Department of Transportation 2004).

Habitat function for special-status bats would be maintained because treatment activities and maintenance treatments would not result in removal of living trees (i.e., conifers, hardwoods) greater than 10 inches dbh, which would be the most likely features to be used by this species due to the cover provided by larger trees, and while snags up to 24 inches would be removed, three to five snags would be retained per acre to provide wildlife habitat. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Conclusion

The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the Program EIR. This impact is within the scope of the Program EIR, because the proposed treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special-status wildlife species is also the same, as described above. Biological resource SPRs that apply to project impacts under Impact BIO-2 are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, BIO-11, HYD-1, HYD-3, and HYD-4. Mitigation Measures BIO-2a, BIO-2b, and BIO-2e also apply to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-3

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on sensitive habitats, including designated sensitive natural communities. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities are proposed. Retreatment at too great a frequency could result in additional adverse effects, including type conversion. In particular, if retreatment occurs in chaparral and coastal scrub communities at frequencies outside the natural fire return interval, type conversion could occur in these vegetation communities. The potential for treatment activities, including maintenance treatments, to adversely affect sensitive habitats was examined in the Program EIR.

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, species associated with the following sensitive natural communities were observed, including redwood, tanoak, big-leaf maple, California bay, and Douglas fir. Redwood forest and woodland, tanoak forest, and California bay forest and woodland sensitive natural communities were observed during the reconnaissance-level survey. Sensitive natural communities that have been confirmed in the project area during SPR BIO-1 survey and previous studies at the Preserve include redwood forest,

tanoak forest, Douglas fir forest, Idaho fescue grassland, meadow barley, and blue wildrye prairie (Table 4.5-3) (Warner 2010; Warner 2012). Redwood forest is mapped in almost half of the project area. Approximately 55 acres of serpentine wildflower fields were mapped in Warner (2010) which is a sensitive natural community according to Holland (1986). The California Wildlife Habitat Relationships (CWHR) vegetation type that aligns with this Holland vegetation type and is in range of the project area is the sensitive natural community white-tip clover swales, which is known to occur in the project area. According to Warner (2010), Pacific reed grass is expected to occur, and salmonberry (*Rubus spectabilis*) has been observed on the Preserve.

Valley foothill and montane riparian habitats are present within the project area adjacent to streams and ponds. Warner (2010 and 2012) observed the following riparian species on the Preserve that, if mapped at the alliance level, could be classified as sensitive natural communities: shining willow (*Salix lucida* ssp. *lasiandra*), torrent sedge (*Carex nudata*), California coffeeberry (*Frangula californica*), and western azalea (*Rhododendron occidentale*). Under SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams would be implemented for prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory, which would limit the extent of treatment activities within riparian habitat. While these SPRs would reduce potential impacts on riparian habitat, the extent of riparian habitat within the project area has not been mapped and riparian habitat may be present outside of the areas encompassed within WLPZs. As a result, prior to implementation of treatment activities, SPR BIO-3 would be implemented to identify and map the extent of riparian habitat within a treatment area. As required under SPR BIO-4, treatments in riparian habitats would retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation and would be limited to removal of uncharacteristic or undesired fuel loads (e.g., dead or dying vegetation, invasive plants). Additionally, prior to any treatments in riparian habitat, CDFW would be notified pursuant to California Fish and Game Code 1602, when required.

Mixed chaparral habitat (i.e., Eastwood manzanita chaparral, tobacco brush, or snow bush chaparral, and common manzanita chaparral) is present within the project area (Warner 2012; Tukman and Kass 2022). As required by SPR BIO-5, treatments implemented in chaparral would be designed to avoid type conversion of chaparral vegetation and to maintain chaparral habitat function. This would include identifying the chaparral vegetation types to the alliance level, determining appropriate treatment prescriptions based on current fire return interval departure and condition class of the chaparral vegetation alliances in the project area, retaining at least 35 percent relative final density of mature chaparral vegetation, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. Ecological restoration treatments would not be implemented in stands of chaparral vegetation that are within their natural fire return interval unless it is demonstrated with substantial evidence that the habitat function of the chaparral vegetation alliances would be improved.

Based on previous studies at the Preserve (e.g., Warner 2010, Warner 2012), species ranges, occurrence data, vegetation mapping, aerial photos, and the reconnaissance-level survey of the treatment area conducted pursuant to SPR BIO-1, 18 sensitive natural communities (i.e., natural communities with a rarity rank of S1, S2, or S3) are known to be present in the project area and 23 may occur in the project area. Sensitive natural communities, associated rarity rank, and habitat type within which the communities may occur are presented in Table 4.5-3. In addition, several oak woodland and forest types (i.e., canyon live oak forest and woodland alliance, coast live oak forest and woodland alliance, California black oak forest and woodland alliance, Oregon white oak forest and woodland, mixed oak forest and woodland alliance, valley oak forest and woodland alliance), which are sensitive habitats pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4, are known to occur in the project area (Warner 2010; Warner 2012; Tukman and Kass 2022). Sensitive natural communities in **bold** are known to occur in the project area. One sensitive natural community that was identified in Table 3.6-16 of the Program EIR as having potential to occur in the Northern California Coast Ecoregion, Hinds's walnut and related stand, is not expected to occur in the project area.

Table 4.5-3 Sensitive Natural Communities Documented or with Potential to Occur in the Project Area

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
California bay forest and woodland*^	S3	Coastal Oak Woodland
Douglas fir - tanoak forest and woodland*^	S3	Douglas Fir
Oregon white oak woodland and forest*^	S3	Montane Hardwood
Tanoak forest*^	S3	Montane Hardwood
Bigleaf maple forest and woodland*	S3	Montane Hardwood
Redwood forest and woodland*^	S3	Redwood
Valley oak woodland and forest*	S3	Valley Oak Woodland
Eastwood manzanita chaparral*^	S3	Mixed Chaparral
Common manzanita chaparral^	S3	Mixed Chaparral
Hoary and Stanford manzanita chaparral*	S3	Mixed Chaparral
Bush monkeyflower scrub^	S3?	Coastal Scrub
Wax myrtle scrub^	S3	Coastal Scrub
Salmonberry+	S3	Coastal Scrub
Oregon ash grove	S3.2	Montane Riparian
Fremont cottonwood forest	S3.2	Montane Riparian
Black cottonwood forest	S3	Montane Riparian
Western Labrador-tea thicket	S2	Montane Riparian
Wild grape shrubland	S3	Montane Riparian
Box-elder forest	S3	Valley Foothill Riparian
Torrent sedge patch+	S3	Valley Foothill Riparian
Fremont cottonwood forest	S3.2	Valley Foothill Riparian
Black cottonwood forest	S3	Valley Foothill Riparian
Brewer willow thicket	S3	Valley Foothill Riparian
California coffee berry - western azalea scrub+	S3	Valley Foothill Riparian
Red willow thicket	S3	Valley Foothill Riparian
Shining willow groves+	S3.2	Valley Foothill Riparian
Wild grape shrubland	S3	Valley Foothill Riparian
White-tip clover swales^	S3?	Annual Grassland
Goldenaster patch	S3	Annual Grassland
Blue wildrye prairie^	S3	Perennial Grassland
California oat grass prairie^	S3	Perennial Grassland
Idaho fescue grassland^	S3	Perennial Grassland
Coastal tufted hair grass - California oatgrass meadow^	S3	Perennial Grassland
Meadow barley^	S3	Perennial Grassland
Water foxtail meadow	S3?	Perennial Grassland
California brome+	S3	Perennial Grassland

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
Pacific reed grass meadow+	S2	Perennial Grassland
Red fescue grassland+	S3	Perennial Grassland
Gum plant patch+	S2S3	Perennial Grassland
Ashy ryegrass - creeping ryegrass turf	S3	Perennial Grassland
Sea lyme grass patch	S2	Perennial Grassland

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

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

* Mapped to alliance in VegCAMP mapping

^ Confirmed by P. Warner (Warner 2010; Warner 2012)

\+ Species observed or alliance expected to occur by P. Warner (Warner 2010; Warner 2012)

Source: Sawyer et al. 2009; Tukman and Kass 2022; Compiled by Ascent in 2022

While not all of the dominant species associated with sensitive natural communities included in Table 4.5-3 were observed during the reconnaissance-level survey, reported by Warner, or mapped, these communities still may be present. Warner did not survey the entirety of the project area and although the vegetation mapping identified alliance level data in most of the project area, grassland and riparian communities were not mapped to that specificity. As a result, prior to implementation of treatment activities, SPR BIO-3 would be implemented and a qualified RPF or biologist would identify sensitive natural communities in the treatment area to the alliance level pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018a) and using the Manual of California Vegetation (including updated natural communities data at http://vegetation.cnps.org/).

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

The potential for treatment activities to result in adverse effects on sensitive habitats, as described above, was examined in the Program EIR. This impact on sensitive habitats is within the scope of the Program EIR, because, within the project area boundary, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape; therefore, the potential impact on sensitive habitats is also the same. Biological resource SPRs that apply to project impacts under

Impact BIO-3 are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-9, and HYD-4. Biological resource mitigation measures that apply to project impacts under Impact BIO-3 are Mitigation Measure BIO-3a, Mitigation Measure BIO-3b, and Mitigation Measure BIO-3c. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-4

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

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, multiple types of aquatic habitat were observed, including perennial riverine, riverine, seep, freshwater forested-shrub wetland, and freshwater emergent wetland. Perennial riverine habitat observed included the East Branch Russian Gulch and Sheephouse Creek. Species present included redwood, western thimbleberry (*Rubus parviflorus)*, and western sword fern (*Polystichum munitum*). Freshwater forested/shrub wetland is mapped at this location (SFEI Aquatic Science Center 2017; USFWS 2021). Species observed at East Branch Russian Gulch were present in other riverine habitat within redwood forest. Riverine habitat was also observed in coyote scrub, native and nonnative perennial coastal grassland, and southwestern North American riparian/wash scrub vegetation communities. Freshwater emergent wetlands were observed in the perennial grassland/coastal prairie habitat in the southwestern portion of the project area. Species present included willow (*Salix* spp.), Douglas fir, and rush species (*Juncus* spp.). Some of the freshwater emergent wetlands observed still had standing water present at the end of September 2022. Freshwater emergent wetlands were also observed in areas that were not previously mapped including one on the side of the road that leads up to Pole Mountain and one in front of the residence in the southwest portion of the project area in the perennial grassland/coastal prairie habitat. Warner (2012) indicated wetland vegetation alliances that are expected on the property include coastal dune willow-Sitka willow-Douglas spiraea thickets (freshwater emergent wetland) and white-root beds (wet meadow). Wildlands Conservancy staff identified serpentine seep habitat in the southwestern portion of the project area (Berger, pers. comm., 2022) that was dry due to time of year.

California Aquatic Resources Inventory classifies the project area as having approximately 1.5 miles of intermittent stream/river (e.g., Orrs Creek), 4.6 miles perennial stream/river (e.g., Sheephouse Creek and Kidd Creek), 0.8 acre freshwater forested/shrub-temporarily flooded palustrine scrub-shrub broad-leaved deciduous wetland, 0.4 acre freshwater forested/shrub-seasonally flooded palustrine forested broad leaved deciduous wetland, 2.4 acre freshwater forested/shrub-temporarily flooded palustrine forested broad leaved deciduous wetland, and 0.4 freshwater emergent-seasonally saturated palustrine emergent persistent wetland (SFEI Aquatic Science Center 2017).

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I (e.g., East Branch Russian Gulch, Sheephouse Creek) and Class II streams would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV streams within the project area for prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory. Establishment of WLPZs would result in avoidance of stream and pond habitat for prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory.

Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps. P. Warner reports that over 100 springs and seeps or pockets of moisture may be present within the THP area, which is only a small portion of the project area (Warner 2012). Additionally, unmapped wetland habitat was observed during SPR BIO-1.

Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of wetland features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, seeps, and other wetlands; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-status

wildlife (e.g., swamp harebell, California red-legged frog, foothill yellow-legged frog, California giant salamander, red-bellied newt, and western pond turtle; see Impact BIO-1 and Impact BIO-2).

The potential for treatment activities to adversely affect state or federally protected wetlands was examined in the Program EIR. This impact on wetlands is within the scope of the Program EIR, because, within the project area boundary, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, the potential impact on wetlands is also the same. Biological resource SPRs that apply to project impacts under Impact BIO-4 are SPRs BIO-1, HYD-1, HYD-3, and HYD-4. The biological resource mitigation measure that applies to project impacts under Impact BIO-4 is Mitigation Measure BIO-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-5

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

Based on review and survey of project-specific biological resources (SPR BIO-1), the project area is located on the western edge of an Essential Connectivity Area (CNDDB 2022f) extending from the Russian River though Duncans Mills to Cazadero and beyond. Although a portion of the project area is not included in identified habitat linkages, this part of the project area contains natural habitat and is likely used for local wildlife movement, especially streams and associated riparian corridors. Additionally, no wildlife nursery sites or indications of nursery sites, such as deer fawning habitat or potential rookery trees with whitewash, were identified within any treatment areas during implementation of SPR BIO-1.

Treatment activities are not likely to result in permanent impacts on wildlife movement through the project area, because habitat function would be maintained for wildlife. Treatment activities would not result in removal of live trees greater than 10 inches dbh, which are the most likely trees to provide den habitat for ringtail and other denning wildlife species, as well as roost habitat for special-status and common bats. Although snags up to 24 inches dbh would be removed, at least three to five snags per acre would be retained (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained per SPR HYD-4 which would continue to provide riparian habitat for movement. Temporary impacts on wildlife movement due to prescribed herbivory would be avoided through implementation of SPR BIO-11, which requires use of wildlife-friendly fencing during prescribed herbivory treatments.

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

The potential for treatment activities to result in adverse effects on wildlife movement corridors and nurseries is within the scope of the Program EIR, because the proposed treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially

the same as those within the treatable landscape; therefore, the potential impact on wildlife movement corridors is also the same, as described above. Biological resource SPRs that apply to project impacts under Impact BIO-6 are SPRs BIO-1, BIO-4, BIO-5, BIO-10, BIO-11, and HYD-4. The biological resource mitigation measure that applies to project impacts under Impact BIO-5 is Mitigation Measure BIO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-6

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife, including nesting birds, because habitat suitable for these species is present throughout the project area. Treatment activities, including prescribed burning. mechanical treatments, manual treatments, and prescribed herbivory, conducted during the nesting bird season (February 1 through August 31), could result in direct loss of active nests or disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, livestock, personnel) potentially resulting in abandonment and loss of eggs or chicks. The potential for treatment activities, including maintenance treatments, to result in adverse effects on these resources was examined in the Program EIR.

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

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

IMPACT BIO-7

The potential for treatment activities to result in conflicts with local policies or ordinances was examined in the Program EIR. Applicable local Sonoma County ordinances relevant to biological resources include the Heritage or Landmark Tree Ordinance (Chapter 26D, "Heritage or Landmark Trees") and the Riparian Corridor Combining Zone Ordinance (Chapter 26, Article 65, "RC Riparian Corridor Combining Zone").

The Heritage or Landmark Trees Ordinance applies to development projects in the unincorporated County and requires submission of a site plan with the development permit depicting all protected trees (i.e., trees greater than 9 inches dbh) that would be removed (Chapter 26D, Section 26D-5, "Permit processing procedures"). The project is not a development project and would not be required to submit a development permit. The Sonoma County Heritage and Landmark Tree Ordinance requires a tree permit for removal of a designated heritage or landmark tree (i.e., a tree or grove of trees so designated by the Sonoma County board of supervisors due to historical interest, significance, or outstanding characteristics in terms of size, age, rarity, shape, or location) in the unincorporated County. It is unlikely that any trees that would be removed during implementation of treatment activities would qualify as a Heritage or Landmark Tree. Further, this ordinance grants exemptions for removal of trees when such 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. Treatment objectives would be consistent with these guidelines.

The Riparian Corridor Combining Zone Ordinance is applied to designated streams throughout the County. Streamside conservation areas are indicated in the Sonoma County zoning database. Activities including grading and vegetation removal are prohibited in these streamside conservation areas (Chapter 26, Article 65, Section 26-65-030, "Prohibited uses and exceptions") with exceptions including invasive plant removal and fire fuel management in compliance with Sonoma County fire safe standards, though no redwood tree removal is permitted (Chapter 26, Article 65, Section 26-65-040 "Allowed land uses, activities and permit requirements"). This project would follow all Sonoma County fire safe standards and therefore this project would qualify for this fire fuels management exemption. However, almost half of the project area is mapped as redwood habitat, so the Sonoma County zoning database would also be consulted to determine the streamside conservation areas within the project area. This would guide vegetation removal and allow the project to comply with the stipulation that no redwoods would be removed in streamside conservation areas. Thus, there would be no conflict with local ordinances as a result of implementation of treatment activities.

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

IMPACT BIO-8

This impact does not apply to the proposed project because the project area is not within the plan area of any adopted habitat conservation plan or natural community conservation plan. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential for conflicts with an adopted HCP or NCCP is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW BIOLOGICAL RESOURCE IMPACTS

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

4.6 GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

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

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

New Geology, Soils, Paleontology, and Mineral Resource Impacts: Would the treatment result in other impacts on geology, soils, paleontology, and mineral resources that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

The Preserve is located in the coastal mountains in western Sonoma County, approximately 0.6 mile from the California coast. This area is within the California Coast Ranges geomorphic province. As discussed in Section 3.7.1, "Environmental Setting," of the CalVTP Program EIR, the California Coast Ranges are primarily composed of Jurassic- to Cretaceous-age (about 65–150 million years old) marine sedimentary and volcanic rocks of the Franciscan assemblage. The Franciscan assemblage consists of partially metamorphosed greenstone, basalt, chert, and graywacke that originated as sea floor sediments. The coastline along this province is uplifted, wave-cut, and terraced. Soil associations in this area include Kneeland-Rohnerville-Kinman association (well drained and moderately well drained, nearly level to steep loams to clay loams; on coastal benches, terraces, and uplands) (USDA 1971). As discussed in Section 4.3, "Air Quality," and Section 4.5, "Biological Resources," of this PSA/Addendum, portions of the project area have been mapped as underlain by serpentine soils (Warner 2010).

IMPACT GEO-1

Vegetation treatments would include shaded fuel breaks and ecological restoration through use of prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory. These activities could result in varying levels of soil

disturbance and have the potential to increase the rates of erosion and loss of topsoil. Mechanical treatments using heavy machinery are the most likely to cause soil disturbance that could lead to substantial erosion or loss of topsoil, especially in areas that contain steep slopes. The potential for these treatment activities to cause substantial erosion or loss of topsoil was examined in the Program EIR. These impacts are within the scope of the Program EIR because the use and type of equipment, extent of vegetation removal, and intensity of proposed treatment activities (e.g., mechanical treatments, prescribed burning, prescribed herbivory) are consistent with those analyzed in the Program EIR.

As described under Section 1.1.3, "Purpose of the PSA/Addendum," The Wildlands Conservancy proposes to revise requirements under SPR GEO-1 during to allow for suspension of mechanical and prescribed herbivory treatments if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical or prescribed herbivory activities, rather than when there is a minimum 30 percent chance of rain, and to apply this SPR only for prescribed herbivory activities associated with goats and sheep. Without this revision to SPR GEO-1, the objective to use cattle for prescribed herbivory activities could not be achieved. This constitutes a revision to the program description analyzed in the Program EIR.

Requirements under SPR GEO-1 are intended to prevent soil disturbance during precipitation events that could result in soil erosion. Suspension of mechanical and prescribed herbivory treatments in the above-mentioned conditions (e.g., rain, saturated soils) would provide the same level of protection for erosion avoidance as the original SPR GEO-1, because these activities would not continue during conditions where erosion could occur. The Program EIR analysis regarding prescribed herbivory and erosion noted that because herds would be moved often, the likelihood of substantial erosion would be reduced. Additionally, with implementation of SPRs HYD-3 and HYD-4, animals used for prescribed herbivory, including cattle, would be excluded from environmentally sensitive areas (e.g., waterbodies, wetlands, riparian areas). Therefore, proposed revisions to SPR GEO-1 would not result in a substantially more severe significant effect related to erosion than what was covered in the Program EIR. The text revisions to SPR GEO-1 are shown in underline and strikethrough in the MMRP (Attachment A).

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions, such as soil characteristics, present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact related to soil erosion is also the same, as described above. SPRs applicable to this impact are GEO-1 through GEO-8, AQ-3, AQ-4, HYD-3, and HYD-4. As explained above, impacts related to soil erosion resulting from the proposed project, including proposed revisions to SPR GEO-1, would not constitute new or substantially more severe significant impact than what was covered in the Program EIR.

IMPACT GEO-2

Treatment activities would include prescribed burning, mechanical treatment, manual treatment, and prescribed herbivory. Areas with likely landslide activity are identified within the project area (USGS 2022). Furthermore, given the variable topography in some portions of the project area, there are potentially additional, unmapped areas with the potential for landslide activity. The potential for treatment activities to increase landslide risk was examined in the Program EIR. This impact is within the scope of the Program EIR because the extent of vegetation removal, intensity of treatment areas, and characteristics of the geographical terrain are consistent with those analyzed in the Program EIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the range of slopes and landslide conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape. Therefore, the potential impact related to landslide risk is also the same, as described above. SPRs applicable to the proposed project are GEO-1, GEO-3, GEO-4, GEO-7, GEO-8, and AQ-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.7.1, "Environmental Setting," and Section 3.7.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR and revisions to SPRs constitute a revision to the program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to geology and soils that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to geology, soils, paleontology, or mineral resources would occur that is not covered in the Program EIR.

4.7 GREENHOUSE GAS EMISSIONS

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs	LTS	Impact GHG-1, pp. 3.8-10 – 3.8-11	Yes	None	NA	LTS	No	Yes
Impact GHG-2: Generate GHG Emissions through Treatment Activities	SU	Impact GHG-2, pp. 3.8-11 – 3.8-17	Yes	AQ-3	GHG-2	SU	No	Yes

Notes: LTS = less than significant; SU = significant and unavoidable; NA = not applicable because there are no SPRs and/or MMs identified in the Program EIR for this impact; None = there are SPRs and/or MMs identified in the Program EIR for this impact, but none are applicable to the treatment project.

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

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

Discussion

IMPACT GHG-1

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

IMPACT GHG-2

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in GHG emissions. The potential for treatments under the CalVTP to generate GHG emissions was examined in the Program EIR. This impact is within the scope of the Program EIR because the proposed activities, as well as the associated equipment and duration of use, and the intent of the treatments to reduce wildfire risk and GHG emissions related to wildfire are consistent with those analyzed in the Program EIR. Mitigation Measure GHG-2 would be implemented and would reduce GHG emissions associated with prescribed burning. However, emissions generated by the treatment would still contribute to the annual emissions generated by the CalVTP, and this impact would remain significant and unavoidable, consistent with, and for the same reasons described in, the Program EIR. SPR AQ-3 is also applicable to this treatment and would document in a Burn Plan which methods for reducing GHG emissions can feasibly be integrated into the treatment design. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the climate conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the GHG impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS RELATED TO GHG EMISSIONS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatments are consistent with the applicable regulatory and environmental conditions presented in the CalVTP Program EIR (refer to Section 3.8.1, "Regulatory Setting," and Section 3.8.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions pertinent to the climate conditions that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to GHG emissions would occur.

4.8 ENERGY RESOURCES

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

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

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

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

Discussion

IMPACT ENG-1

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

NEW ENERGY RESOURCE IMPACTS

The site-specific characteristics of the proposed treatment project are consistent with the applicable regulatory and environmental conditions presented in the CalVTP Program EIR (refer to Section 3.9.1, "Regulatory Setting," and Section 3.9.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land outside the treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to energy resources would occur.

4.9 HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered In the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact HAZ-1, pp. 3.10-14 – 3.10-15	Yes	HAZ-1 HYD-4	NA	LTS	No	Yes
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2, pp. 3.10-15 – 3.10-18	No	--	--	--	--	--
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	LTSM	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	NA	HAZ-3	LTSM	No	Yes

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

New Hazardous Materials, Public Health and Safety Impacts: Would the treatment result in other impacts related to hazardous materials, public health and safety that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT HAZ-1

Vegetation treatments would include prescribed burning, mechanical treatments, and manual treatments; these activities would require the use of fuels or accelerants, which are considered hazardous materials. The potential for treatment activities to cause a significant health hazard from the use of hazardous materials was examined in the Program EIR. This impact is within the scope of the Program EIR because the types and locations of treatments and associated equipment and types of hazardous materials that would be used are consistent with those analyzed in the Program EIR. SPR HAZ-1 and HYD-4 would be applicable to the proposed project. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HAZ-2

This impact does not apply to the proposed project because herbicide application is not part of the proposed project.

IMPACT HAZ-3

Initial and maintenance treatments would include soil disturbance and prescribed burning, which could expose crew members or the environment to hazardous materials if a contaminated site is present within the Preserve. The potential for crew members implementing treatment activities to encounter contamination that could expose them or the environment to hazardous materials was examined in the Program EIR. This impact was identified as potentially significant in the Program EIR because hazardous materials sites could be present within treatment sites, and soil disturbance or burning in those areas could expose people or the environment to hazards. As directed by Mitigation Measure HAZ-3, a database search for hazardous materials sites within the Preserve has been conducted. There are no active hazardous materials sites within or adjacent to the Preserve. One previous leaking underground gasoline storage tank site is present within or adjacent to the Preserve; however, it has been cleaned up to regulatory standards and is considered to present no further threat under current land uses (DTSC 2022; CalEPA 2022; SWRCB 2022) (Attachment C). Therefore, this impact would be less than significant.

The inclusion of land in the Preserve that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the potential to encounter hazardous materials and the regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the hazardous materials impact is also the same, as described above. No SPRs are applicable to this impact, and no additional mitigation is required. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.10.1, "Environmental Setting," and Section 3.10.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to hazardous materials that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to hazardous materials, public health, or safety would occur.

4.10 HYDROLOGY AND WATER QUALITY

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

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

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

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

Discussion

The Preserve is within the Russian River hydrologic region and within the Jenner Gulch watershed. The Russian River hydrologic unit encompasses Mendocino and Sonoma counties and is bounded by the coast ranges on both the east and west. The mainstem flows southward from Redwood and Potter valleys, which is north of Ukiah, to its confluence with Mark West Creek, where it turns west to cut through the coast range and empty into the Pacific Ocean at Jenner (CSWRCB 2022). Jenner Gulch, East Branch Russian Gulch, Sheephouse Creek, Kid Creek, and Orrs Creek flow through the Preserve. Slopes within the Preserve drain into Sheephouse Creek, Kid Creek, and Orrs Creek.

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

IMPACT HYD-1

Initial and maintenance treatments would include prescribed burning. Ash and debris from treatment areas could be washed by runoff into adjacent drainages and streams. Most treatments would occur in upland areas; however, for those that would occur proximate to streams and watercourses, WLPZs ranging from 50 to 150 feet would be implemented for Class I and Class II streams pursuant to SPR HYD-4. The potential for prescribed burning activities to cause runoff and violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the parameters of broadcast burns (i.e., low intensity) and pile burning are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also the same, as described above. SPRs applicable to this impact are HYD-4, BIO-4, BIO-5, GEO-4, GEO-6, and AQ-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-2

Initial treatment would include mechanical and manual activities. Most treatments would occur in upland areas; however, for those that would occur proximate to streams and watercourses, WLPZs ranging from 50 to 150 feet would be implemented for Class I and Class II streams pursuant to SPR HYD-4. The potential for mechanical and manual treatment activities to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use and type of equipment used during mechanical and manual treatment activities (e.g., tractors/skidders, masticators, chainsaws, hand saws, brush cutters), extent of vegetation removal, and intensity of proposed mechanical treatment activities are consistent with those analyzed in the Program EIR.

As described under Section 1.1.3, "Purpose of the PSA/Addendum," The Wildlands Conservancy proposes to revise requirements under SPR GEO-1 during to allow for suspension of mechanical and prescribed herbivory treatments if it is raining, soils are saturated, or soils are wet enough to be compacted by mechanical or prescribed herbivory activities, rather than when there is a minimum 30 percent chance of rain, and to apply this SPR only for prescribed herbivory activities associated with goats and sheep. Without this revision to SPR GEO-1, the objective to use cattle for prescribed herbivory activities could not be achieved. This constitutes a revision to the program description analyzed in the Program EIR.

Requirements under SPR GEO-1 are intended to prevent ground disturbance during precipitation events that could produce ruts where runoff could concentrate. Suspension of mechanical and prescribed herbivory treatments in the above-mentioned conditions (e.g., rain, saturated soils) would provide the same level of protection for avoidance of ruts and runoff concentration as the original SPR GEO-1, because these activities would not continue during rainy conditions or when soils were saturated. The Program EIR analysis regarding substantial degradation of surface or ground water quality was focused on the application of SPR GEO-1 for mechanical treatments only. Nonetheless, with implementation of other SPRs, including SPR HYD-3 and SPR HYD-4, animals used for prescribed herbivory, including cattle, would be excluded from environmentally sensitive areas (e.g., waterbodies, wetlands, riparian areas), which would reduce the likelihood of impacts on water quality. Therefore, proposed revisions to SPR GEO-1 would not result in a substantially more severe significant effect related to surface or ground water quality than what was covered in the Program EIR. The text revisions to SPR GEO-1 are shown in underline and strikethrough in the MMRP (Attachment A).

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from mechanical and manual treatment activities is also the same, as described above. SPRs applicable to this impact are HYD-1, HYD-4, HYD-5, GEO-1 through GEO-5, GEO-7, GEO-8, BIO-1, and HAZ-1. As explained above, impacts related to soil erosion resulting from the proposed project, including proposed revisions to SPR GEO-1, would not constitute new or substantially more severe significant impact than what was covered in the Program EIR. Impact HYD-3

Initial treatment would include prescribed herbivory. Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas would be identified and excluded from prescribed herbivory using temporary fencing or active herding and a buffer of approximately 50 feet would be maintained between sensitive and actively grazed areas as described in Section 2.1.2, "Treatment Activities" and required by SPR HYD-3. Additionally, WLPZs ranging from 50 to 150 feet would be implemented for any watercourses that are within treatment areas pursuant to SPR HYD-4. Cattle grazing is an existing activity that is ongoing within grassland habitat for agricultural purposes outside this PSA/Addendum, and would thus not be subject to the requirements of SPR HYD-3. The potential for prescribed herbivory to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of grazing animals (e.g., goats, cattle) and the grazing intensity to manage and remove vegetation are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed herbivory treatments is also the same, as described above. The SPR applicable to this impact is SPR HYD-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-4

This impact does not apply to the proposed project because herbicide application is not part of the proposed project.

IMPACT HYD-5

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. Most treatments would occur in upland areas; however, for those that would occur proximate to streams and watercourses, WLPZs ranging from 50 to 150 feet would be implemented for Class I and Class II streams pursuant to SPR HYD-4. The potential for treatment activities to substantially alter the existing drainage pattern of a project site was examined in the Program EIR. This impact on site drainage is within the scope of the Program EIR because the use and type of equipment, extent of vegetation removal, use of manual treatments and prescribed herbivory, and intensity of proposed mechanical treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the impact related to alteration of site drainage patterns is also the same, as described above. SPRs applicable to this impact are HYD-4, HYD-6, and GEO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HYDROLOGY AND WATER QUALITY IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.11.1, "Environmental Setting," and Section 3.11.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR and revisions to SPRs constitute a revision to the program. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to hydrology and water quality that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to hydrology and water quality would occur.

4.11 LAND USE AND PLANNING, POPULATION AND HOUSING

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	LTS	Impact LU-1, pp. 3.12-13 – 3.12-14	Yes	AD-3	NA	LTS	No	Yes
Impact LU-2: Induce Substantial Unplanned Population Growth	LTS	Impact LU-2, pp. 3.12-14 – 3.12-15	Yes	NA	NA	LTS	No	Yes

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

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

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

Discussion

IMPACT LU-1

Vegetation treatment activities would occur within the boundaries of the Preserve, which is owned and operated by The Wildlands Conservancy according to its land management practices and policies. The potential for vegetation treatment activities to cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation was examined in the Program EIR. This impact is within the scope of the Program EIR because the treatment locations, types, and activities are consistent with those analyzed in the Program EIR. No conflicts with a land use plan or policy would occur because The Wildlands Conservancy would adhere to SPR AD-3, and the proposed treatments have been designed to be consistent with The Wildlands Conservancy's policies for its Preserve. The treatments are designed, in part, to restore the ecology of the Preserve. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT LU-2

The potential for initial treatments and maintenance treatments to result in substantial unplanned population growth as a result of increases in demand for employees was examined in the Program EIR. Impacts associated with short-term increases in the demand for workers during implementation of the treatment project are within the scope of the Program EIR because the number of workers required for implementation of the treatments is consistent with (or less

than) the crew size analyzed in the Program EIR for the types of treatments proposed (i.e., 10–50 crew members for prescribed burns, eight to 20 crew members and up to two crews for mechanical treatments and manual treatments, and one to two workers for prescribed herbivory). The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the population and housing characteristics of the project area are essentially the same within and outside the treatable landscape; therefore, the population and housing impact is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW LAND USE AND PLANNING, POPULATION AND HOUSING IMPACTS

The proposed project is consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.12.1, "Environmental Setting," and Section 3.12.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing conditions that are pertinent to land use and planning, population and housing that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to land use and planning, population, and housing would occur.

4.12 NOISE

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1, pp. 3.13-9 – 3.13-12; Appendix NOI-1	Yes	AD-3 NOI-1 through NOI-6	NA	LTS	No	Yes
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated Single-Event Noise Levels During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	Yes	NOI-1	NA	LTS	No	Yes

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

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

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

Discussion

IMPACT NOI-1

Manual and mechanical treatments would require the use of noise-generating equipment during implementation. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the Program EIR. Prescribed burning may occur during daytime, nighttime, and weekend hours, while mechanical treatments, manual treatments, and human activity related to prescribed herbivory activities would be limited to daytime hours. The proposed treatments would not require the use of helicopters, which was the loudest type of equipment evaluated in the Program EIR. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using equipment would be limited to daytime hours, Monday through Friday, which would avoid the potential to create noise during the evening and nighttime hours. In addition, several SPRs would be implemented, including AD-3 and NOI-1 through NOI-5. For any properties where residences are within 1,500 feet of a treatment area, SPR NOI-6 would also apply. This impact is within the scope of the Program EIR, because the number and types of equipment proposed, and the duration of equipment use are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the noise impact is also the same, as described above. This determination is

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

IMPACT NOI-2

Initial and maintenance treatments would involve large trucks hauling heavy equipment to the project area. These haul truck trips would be dispersed on area roadways providing access to the Preserve including, but not limited to SR 1, SR 116, and other public roadways. Vehicle traffic on area highways is not expected to generate a noticeable increase in traffic-related noise. Haul truck trips on the local roadways would pass by residential receptors and the event of each truck passing by could increase the single event noise levels. The potential for a substantial short-term increase in single event noise levels was examined in the Program EIR. This impact is within the scope of the Program EIR because the number and types of equipment proposed are consistent with those analyzed in the Program EIR. The haul trips associated with the treatment would occur during daytime hours, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. SPR NOI-1 is applicable to this treatment. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the noise impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW NOISE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.13.1, "Environmental Setting," and Section 3.13.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to noise that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to noise would occur.

4.13 RECREATION

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

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

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

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

Discussion

The Preserve is open to the public for recreational activities, including hiking, picnicking, wildlife viewing, and wildflower viewing (The Wildlands Conservancy 2022). The Preserve adjoins SR 1 for 2.5 miles adjacent to Sonoma Coast State Park, just north of the Russian River State Marine Recreational Area (The Wildlands Conservancy 2022). The Preserve includes six publicly accessible hiking trails. Other publicly accessible recreational areas in the project vicinity include Jenner Beach and Goat Rock Beach, both located south of the project area, Russian Gulch State Beach, located west of the project area, and the Sonoma Land Trust's Pole Mountain Preserve, which is located north of the project area. Pole Mountain Preserve is also open to the public for hiking.

IMPACT REC-1

Vegetation treatment activities have the potential to disrupt recreational activities within the project area through temporary trail closures during active treatments and by degrading the experience of recreationists through the creation of noise, dust, degradation of scenic views, or increased traffic. Recreational users would be notified of temporary closures of any area of the Preserve in advance on treatment activities per SPR REC-1. Nuisance impacts related to noise, air quality, aesthetics, and transportation would be avoided or minimized as explained in the discussion for those respective resource areas throughout this PSA/Addendum. The potential for vegetation treatment activities to disrupt recreation activities was examined in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the availability of recreational resources within the project area is essentially the same within and outside the treatable landscape; therefore, the impact on recreation is also the same, as described above. The SPR applicable to this treatment is REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW RECREATION IMPACTS

The proposed project is consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.14.1, "Environmental Setting," and Section 3.14.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions pertinent to recreation that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to recreation would occur.

4.14 TRANSPORTATION

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Impact TRAN-1, pp. 3.15-9 – 3.15-10	Yes	AD-3 TRAN-1	NA	LTS	No	Yes
Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses	LTS	Impact TRAN-2, pp. 3.15-10 – 3.15-11	Yes	AD-3 HYD-2 TRAN-1	NA	LTS	No	Yes
Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP	SU	Impact TRAN-3, pp. 3.15-11 – 3.15-13	Yes	NA	AQ-1	SU	No	Yes

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

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

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

Discussion

IMPACT TRAN-1

Initial and maintenance treatments would temporarily increase vehicular traffic along roadways throughout the Preserve, including SR 1, SR 116, and various public and private roadways. The potential for a temporary increase in traffic to conflict with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures was examined in the Program EIR. The proposed treatments would be short term, and temporary increases in traffic related to treatments are within the scope of the Program EIR because the treatment duration and limited number of vehicles (i.e., heavy equipment transport, crew vehicles for crew members) associated with the proposed treatments are consistent with those analyzed in the Program EIR. In addition, the proposed treatments would not all occur concurrently, and increases in vehicle trips associated with the treatments would be dispersed on multiple roadways. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing transportation conditions (e.g., roadways and road use) present in the areas outside the treatable landscape are essentially the same as those within

the treatable landscape; therefore, the transportation impact is also the same, as described above. The SPRs applicable to this impact are AD-3 and TRAN-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT TRAN-2

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

IMPACT TRAN-3

Treatments could temporarily increase vehicle miles traveled (VMT) above baseline conditions because the proposed project would require vehicle trips to transport crew members and equipment to the treatment areas. While trips by crew members to implement the proposed treatments would increase VMT, there could be a net reduction in VMT in the long term because travel for wildfire response could be reduced. As noted under Impact TRAN-3 in the Program EIR, individual vegetation treatment projects under the CalVTP are reasonably expected to generate fewer than 110 trips per day, which would cause a less-than-significant transportation impact for specific later activities, as described in the *Technical Advisory on Evaluating Transportation Impacts*, published by the Governor's Office of Planning and Research (OPR 2018). Specifically, the Program EIR assumed that individual vegetation treatment projects would accommodate up to 50 vehicles bringing crews and equipment to a treatment site in a day (i.e., 100 trips commuting to and from a treatment site each day, plus a few additional incidental trips during the day). Although the Program EIR determined that individual vegetation treatments would likely be less than significant, the overall impact was identified as potentially significant and unavoidable in the Program EIR because implementation of the CalVTP would result in a net increase in VMT attributable to the program as a whole. Manual and mechanical treatments and prescribed burning under the proposed project would typically require between 10–50 crew members for prescribed burns, eight to 20 crew members, up to two crews for mechanical and manual treatments, and one to two workers for prescribed herbivory. Up to four treatments could be implemented simultaneously. Given these crew sizes, the proposed project would generate fewer than 110 trips. Because the project would generate VMT during project implementation, it would contribute to the environmental significance conclusion in the Program EIR; therefore, for purposes of CEQA compliance, this PSA/Addendum notes the impact as potentially significant and unavoidable. As discussed for Impact AQ-1 in Section 4.3, "Air Quality," Mitigation Measure AQ-1 would be implemented to the extent feasible, which includes carpooling. However, because crews may not all be employed with the same company and due to the project's location in a rural area, carpooling may not be feasible to implement for most of the workers. Beyond encouraging workers to carpool, it would not be feasible to reduce VMT generated under the proposed project.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the transportation-related conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON TRANSPORTATION

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.15.1, "Environmental Setting," and Section 3.15.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to transportation that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to transportation would occur.

4.15 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

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

New Public Services, Utilities and Service System Impacts: Would the treatment result in other impacts on public services, utilities and service systems that are not evaluated in the CalVTP Program EIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

IMPACT UTIL-1

Initial and maintenance treatments would include prescribed burning, which would require an on-site water supply (i.e., water trucks) to be available as a safety precaution. If needed to extinguish the burn, water would be supplied from water trucks. The potential increased demand for water was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the size of the area proposed for prescribed burn treatments, amount of water required for prescribed burning, and water source type are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP

treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the water supplies present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the water supply impact is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-2

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

IMPACT UTIL-3

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

NEW IMPACTS ON PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.16.1, "Environmental Setting," and Section 3.16.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to public services, utilities, and service systems that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to public services, utilities, or service systems would occur.

4.16 WILDFIRE

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

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

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

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

Discussion

IMPACT WIL-1

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

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

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

IMPACT WIL-2

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

NEW IMPACTS ON WILDFIRE

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.17.1, "Environmental Setting," and Section 3.17.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to wildfire that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances would give rise to new significant impacts not addressed in the Program EIR. Therefore, no new impact related to wildfire would occur that is not covered in the Program EIR.

5 LIST OF PREPARERS

State Coastal Conservancy (CEQA Lead Agency)

Morgan Wright ..... Project Manager

The Wildlands Conservancy (Implementing Entity)

Luke Farmer ..... Regional Director

Ryan Berger ..... Preserve Manager

Ascent (CEQA Compliance)

Heather Blair ..... Principal/Project Director

Allison Fuller ..... Project Manager, Biological Resources (Senior Review)

Hannah Weinberger ..... Assistant Project Manager, Biological Resources

Saba Asghary ..... Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Population and Housing, Noise, Transportation, Public Health and Safety, Public Services, Utilities and Service Systems

Reida Khan ..... Air Quality, Aesthetics and Visual Resources, Agriculture and Forestry Resources, Energy Resources, Geology, Soils, Paleontology, and Mineral Resources, Greenhouse Gas Emissions, Recreation; Wildfire

Alta Cunningham ..... Archeological, Historic, and Tribal Cultural Resources

Ted Thayer ..... Biological Resources

Tammie Beyerl ..... Biological Resources (Senior Review)

Lara Rachowicz ..... Biological Resources (Senior Review)

Stephanie Rasmussen ..... Senior Review

Lisa Merry ..... GIS Specialist

Michele Mattei ..... Publishing Specialist

Riley Smith ..... Publishing Specialist

Brian Perry ..... Graphic Specialist

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