PROJECT-SPECIFIC ANALYSIS AND ADDENDUM TO THE CalVTP PROGRAM EIR

West Mount Shasta Forest Resiliency Project

Prepared for:

Shasta Valley Resource Conservation District

November 2022

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LIST OF ABBREVIATIONS

ATV	all-terrain vehicle
Board	Board of Forestry and Fire Protection
CAAQS	California ambient air quality standard
CalVTP	California Vegetation Treatment Program
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
DBH	diameter at breast height
dB	decibel
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EVEG	U.S. Forest Service Existing Vegetation
FRAP	Fire and Resource Assessment Program
GHG	greenhouse gas
HCP	habitat conservation plan
I-5	Interstate 5
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
NEIC	Northeast Information Center
NOA	naturally occurring asbestos
PEIR	program environmental impact report
PRC	public resources code
Project	West Mount Shasta Forest Resiliency Project
PSA	Project-Specific Analysis
RCD	Resource Conservation District
RPF	registered professional forester
SCAPCD	Siskiyou County Air Pollution Control District
SPR	standard project requirements
SRA	state responsibility area
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTV	utility task vehicle
VMT	vehicle miles travelled
WLPZ	watercourse and lake protection zone
WUI	wildland-urban interface

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1 INTRODUCTION

1.1 PROJECT OVERVIEW AND DOCUMENT PURPOSE

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

This PSA/Addendum, which addresses Shasta Valley Resource Conservation District's (RCD's) proposed vegetation treatment project, is being prepared under the Board's technical assistance program to provide both California Environmental Quality Act (CEQA) compliance for Shasta Valley RCD to approve and implement the project, as well as serve as an example PSA/Addendum for other agencies seeking to use the CalVTP PEIR to accelerate approval of their own vegetation treatment projects.

1.1.1 Project Overview

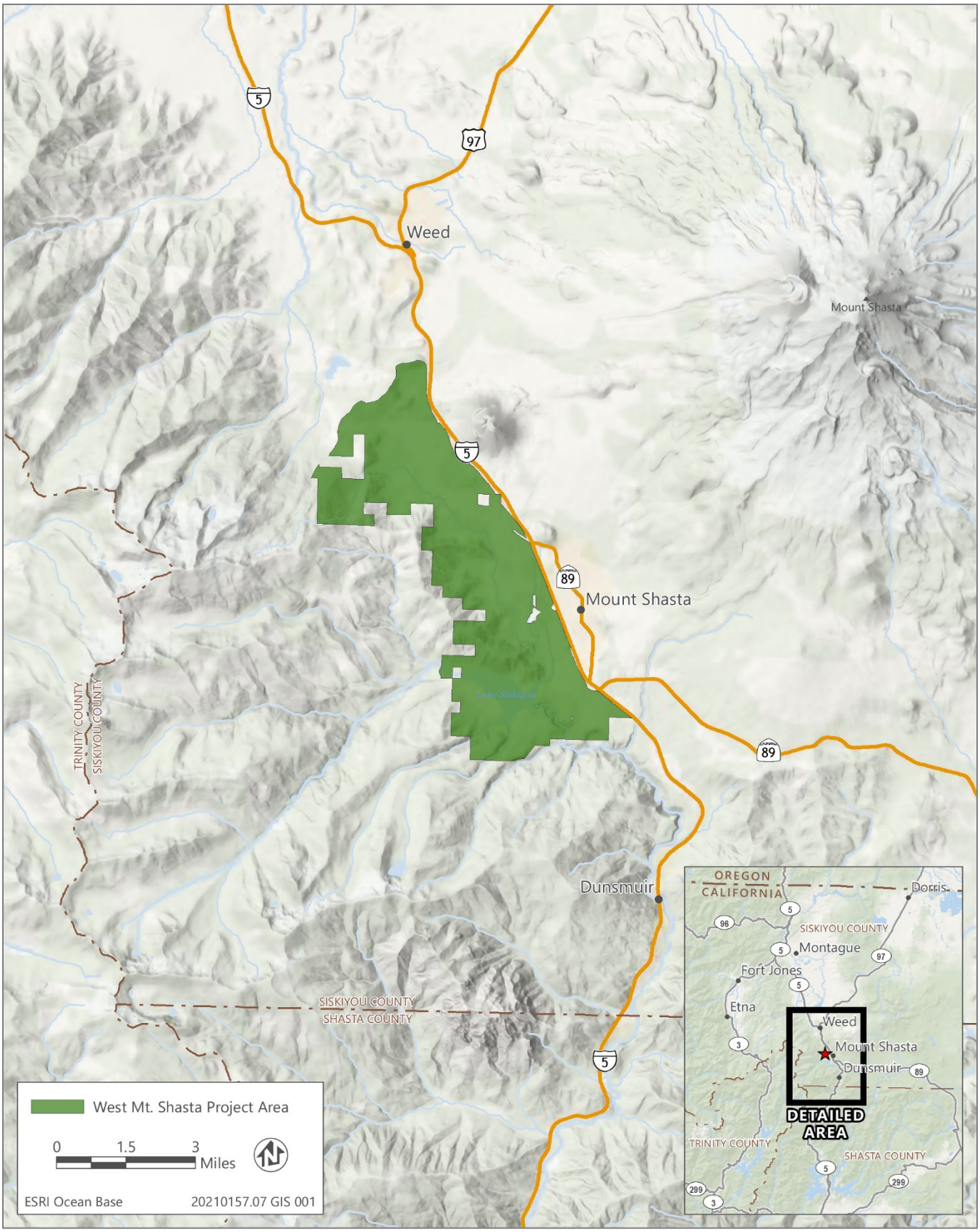
Shasta Valley RCD proposes to implement vegetation treatments on up to 12,966 acres of land (proposed project) in Siskiyou County, in the Upper Sacramento Watershed west of Mount Shasta from I-5 to the Shasta-Trinity National Forest boundary (Figure 1-1). The proposed treatment types (i.e., ecological restoration, wildland-urban interface [WUI] fuel reduction, fuel breaks) and the treatment activities (i.e., prescribed burning, mechanical treatments, manual treatments, herbicide application) are consistent with those evaluated in the CalVTP PEIR. Maintenance treatments would involve the same vegetation treatment types and activities used in the original treatment.

1.1.2 Agency Roles

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

1.1.3 Purpose of the PSA/Addendum

This document evaluates if the proposed treatments are within the scope of the CalVTP PEIR. If a proposed vegetation treatment project is covered by the evaluation of environmental effects in the PEIR, it may be approved using a finding that the project is within the scope of the PEIR for its CEQA compliance, consistent with CEQA Guidelines Section 15168(c)(2).



Sources: Data received from Shasta Valley RCD in 2022; adapted by Ascent in 2022

Figure 1-1 Regional Location

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 revisions or changes in the project, compared to the PEIR, are the inclusion of areas outside of the CalVTP treatable landscape, and revisions to SPRs, which are integrated into the Program itself. Additionally, a proposed minor change to a mitigation measure is warranted due to a proposed SPR revision.

The PSA checklist (refer to Section 4, "Project-Specific Analysis") includes the criteria to support an Addendum to the CalVTP Program EIR (PEIR) 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 PEIR and/or would result in any new impacts that were not covered in the PEIR.

This document serves as both a PSA and an Addendum to the CalVTP PEIR for RCD review and analysis under CEQA with regard to the RCD's proposed treatments within and outside the treatable landscape covered by the PEIR, including the proposed SPR revisions and mitigation measure revision. It will provide environmental information to the RCD in its consideration of approval of grant funding allocations and implementation of the work by the RCD, its partners, or its contractor(s). 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 West Mount Shasta Forest Resiliency 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 PEIR is whether it is located in the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the PEIR). While most of the project area would be inside, portions of the project area would extend outside of the treatable landscape described in the CalVTP PEIR. In total, the areas outside the treatable landscape encompass approximately 2,230 acres of the 12,966-acre project area; they are dispersed in small sections of the project area and generally include lakes and meadows (refer to Figure 2-1). The scattered array of acreage includes some non-treatable acres that are isolated pixels 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 PEIR would be applicable.

Proposed Revisions to CalVTP SPRs

While the proposed treatment types and treatment activities are consistent with the CalVTP, Shasta Valley RCD has deemed that certain requirements of CalVTP SPRs are infeasible, are not warranted to maintain the impact significance conclusions in the PEIR, and, if implemented as presented in the PEIR, would prevent Shasta Valley RCD 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 PEIR's description of later project activities.

Shasta Valley RCD's proposed revisions to SPRs are described below. These proposed revisions would not result in any new or substantially more severe significant impacts on any of the resources evaluated in the PEIR and described in this PSA/Addendum. Evidence to explain this conclusion is presented under each applicable resource, as described below.

SPR AQ-3 Create Burn Plan

SPR AQ-3, as presented in the PEIR, requires preparation of a burn plan using the CAL FIRE burn plan template prior to prescribed burning treatment activities. Pursuant to SPR AQ-3, the burn plan will include a fire behavior model performed by a qualified fire behavior technical specialist, will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion, and will be created with input from a qualified technician or certified State burn boss.

Shasta Valley RCD proposes to prepare burn plans prior to prescribed burning activities using burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent (California PBA 2022). The CAL FIRE Prescribed Fire Guidebook provides the template and required elements of CAL FIRE burn plans: a description of the burn area; target weather conditions; hazards that may be encountered; personnel needs, safety, and contacts to make prior to burning; and short and long-term management goals (CAL FIRE 2019). The burn plan templates proposed to be used by Shasta Valley RCD contain all of these elements. In addition to these elements, Shasta Valley RCD proposes to include elements in the burn plan that are required to obtain burn permits and any additional elements that are needed to design a burn that will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. This may, but is not required to, include outputs from fire behavior modeling programs.

Potential impacts resulting from revisions to SPR AQ-3 are discussed below under Section 4.1, "Aesthetics and Visual Resources," Section 4.3, "Air Quality," Section 4.6, "Geology, Soils, Paleontology, and Mineral Resources," Section 4.7, "Greenhouse Gas Emissions," Section 4.10, "Hydrology and Water Quality," and Section 4.16, "Wildfire." As explained in these sections, the proposed revisions to SPR AQ-3 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. Impacts on other resources would not occur as a result of these revisions, because SPR AQ-3 is not required to reduce environmental effects to any other resources from implementation of the project. The proposed revisions to SPR AQ-3 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR AQ-6 Prescribed Burn Safety Procedures

SPR AQ-6, as presented in the PEIR, requires non-CAL FIRE crews to implement all safety procedures required of CAL FIRE crews. This includes implementation of an approved Incident Action Plan, and outlines the elements required in the Incident Action Plan. To maintain personnel and public safety, Shasta Valley RCD proposes to prepare Incident Action Plans that include elements appropriate for the size and scope of the burn. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. All assigned personnel for a prescribed burn will be briefed to ensure personnel safety and covey prescribed fire objectives.

Potential impacts resulting from revisions to SPR AQ-6 are discussed below under Section 4.3, "Air Quality." As explained in this section, the proposed revisions to SPR AQ-6 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. Impacts on other resources would not occur as a result of these revisions, because SPR AQ-6 is not required to reduce environmental effects to any other resources from implementation of the project. The proposed revisions to SPR AQ-6 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR HYD-4

SPR HYD-4, as presented in the PEIR, prohibits fire ignition and use of accelerants within Watercourse and Lake Protection Zones (WLPZs). SPR HYD-4 allows for low intensity backing fires to enter or spread into WLPZs. As described in the CalVTP PEIR, prescribed burning – specifically higher intensity fire or ignition – within the WLPZ could result in removal of understory vegetation along streams and lakes, which could result in instability or erosion, reduction in stormwater filtration, and potential subsequent water quality impacts that could affect aquatic wildlife species. Additionally, typical accelerants (e.g., potassium perchlorate, gasoline, diesel, mixed gas) and post-fire residue associated with these accelerants can adversely affect water quality if introduced to wetlands, streams, or lakes, as described in the CalVTP PEIR.

Shasta Valley RCD proposes to conduct broadcast burning activities within meadows in the project area. Meadows in the project area vary in character, with most mapped as containing fresh emergent wetland habitat and some being bisected by Class III or Class IV streams. Streams and wetlands within meadows in the project area have not been delineated. As a result, it is likely that meadows that would be subject to broadcast burning contain stream habitat that would have associated WLPZ restrictions pursuant to SPR HYD-4, including prohibition of ignition and the use of accelerants within the WLPZ.

Due to the size and relatively flat topography of the meadows in the project area, it is unlikely that low intensity backing fires ignited consistent with the PEIR limitations would adequately burn the meadow because the fire may not carry due to prevailing winds and slope. Additionally, direct ignition is required to safely maintain control of the fire and initiate the fire behavior that will prevent undesirable fire effects. To meet treatment objectives, Shasta Valley RCD would directly ignite vegetation within meadows using only propane torches to better control fire behavior, which would require a revision of the restrictions in SPR HYD-4. Without this revision to SPR HYD-4 the objective to conduct broadcast burning in meadows could not be achieved. See Section 2.1.1, "Treatment Types" below for more information regarding the importance of conducting broadcast burning in meadow habitats to achieve the restoration goals of the project.

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

Mitigation Measure BIO-4

As presented in the PEIR, Mitigation Measure BIO-4 contains the same prohibition of fire ignition and use of accelerants within WLPZs as stated in SPR HYD-4. As with SPR HYD-4, the Shasta Valley RCD is proposing to revise Mitigation Measure BIO-4 to allow ignition within meadows using only propane torches. The same reasons for the proposed revisions to SPR HYD-4 apply to the proposed revisions to Mitigation Measure BIO-4.

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

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2 TREATMENT DESCRIPTION

The proposed project consists of vegetation treatments in the Upper Sacramento Watershed west of Mount Shasta from I-5 to the Shasta-Trinity National Forest boundary (Figure 1-1, Figure 2-1). The CalVTP treatments would occur within several treatment areas totaling 12,966 acres, all of which are within Siskiyou County. The CalVTP treatment types that would be implemented are ecological restoration, WUI fuel reduction, and fuel breaks, and proposed treatment activities to implement the proposed project are prescribed burning, mechanical treatments, manual treatments, and herbicide application. The proposed CalVTP treatments are shown in Figure 2-1 and are summarized in Table 2-1, below.

Implementation of initial treatments would require between 1 and 50 crew members depending on the treatment, along with their associated vehicles to travel to and from the treatment areas. Up to four crews could be conducting treatments simultaneously throughout the project area. Treatment activities would occur during the daytime, typically between approximately 7:00 a.m. and 6:00 p.m., depending on season and proximity to residences.

Treatments would be scheduled to begin in fall of 2022 depending on funding, equipment/contractor availability, weather conditions, and other restrictions. Mechanical treatments could occur year-round, except if restrictions occur due to fire danger or if the project area is unreachable due to snow or rain conditions. Herbicide could occur year-round, except during rain events. Manual treatments could also occur year-round. Prescribed burning would occur in fall, winter, or spring.

Table 2-1 Proposed CalVTP Treatments

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activity	Treatment Size (acres)	Equipment Used for Treatments	Typical Duration of Treatments
Ecological Restoration	Restoration of meadows and enhancement of forest ecosystems	Mechanical (mastication, ripping, biomass chipping, machine piling); Manual (hand thinning, pruning, piling); Prescribed burning (pile burning, broadcast/underburning); Herbicide (hand application)	3,191	Masticators, chippers (tracked and wheeled), excavators, skid steers, tractors, bulldozers, hand tools, chainsaws, pole saws, weed-trimmers, drip torches, propane torches, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers	Mechanical and Manual treatments: 1 to 6 months; Prescribed burning: 1 day to 2 weeks; Herbicide treatment: Several days to weeks
WUI Fuel Reduction	Improvement of egress, fire control, development of fire-adapted communities	Mechanical (mastication, biomass chipping, machine piling); Manual (hand thinning, pruning, piling); Prescribed burning (pile burning, broadcast/underburning); Herbicide (hand application)	7,300	Masticators, chippers (tracked and wheeled), excavators, skid steers, tractors, bulldozers, hand tools, chainsaws, pole saws, weed-trimmers, drip torches, propane torches, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers	Mechanical and Manual treatments: 1 to 6 months; Prescribed burning: 1 day to 2 weeks; Herbicide treatment: Several days to weeks
Fuel Breaks	Improvement of egress, fire control, development of fire-adapted communities	Mechanical (mastication, biomass chipping, machine piling); Manual (hand thinning, pruning, piling); Prescribed burning (pile burning, broadcast/underburning); Herbicide (hand application)	2,079	Masticators, chippers (tracked and wheeled), excavators, skid steers, tractors, bulldozers, hand tools, chainsaws, pole saws, weed-trimmers, drip torches, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers	Mechanical and Manual treatments: 1 to 6 months; Prescribed burning: 1 day to 2 weeks; Herbicide treatment: Several days to weeks
Total Acres			**12,966**		

Source: Data and information provided by Shasta Valley RCD in 2022. ATV = All-terrain vehicle; UTV = Utility task vehicle.

2.1 PROPOSED TREATMENTS

The proposed project comprises three treatment types: ecological restoration, WUI fuel reduction, and fuel breaks. The vegetation treatment activities proposed to implement each of these treatment types are prescribed burning, mechanical treatments, manual treatments, and herbicide application. The treatment types and treatment activities are described below.

2.1.1 Treatment Types

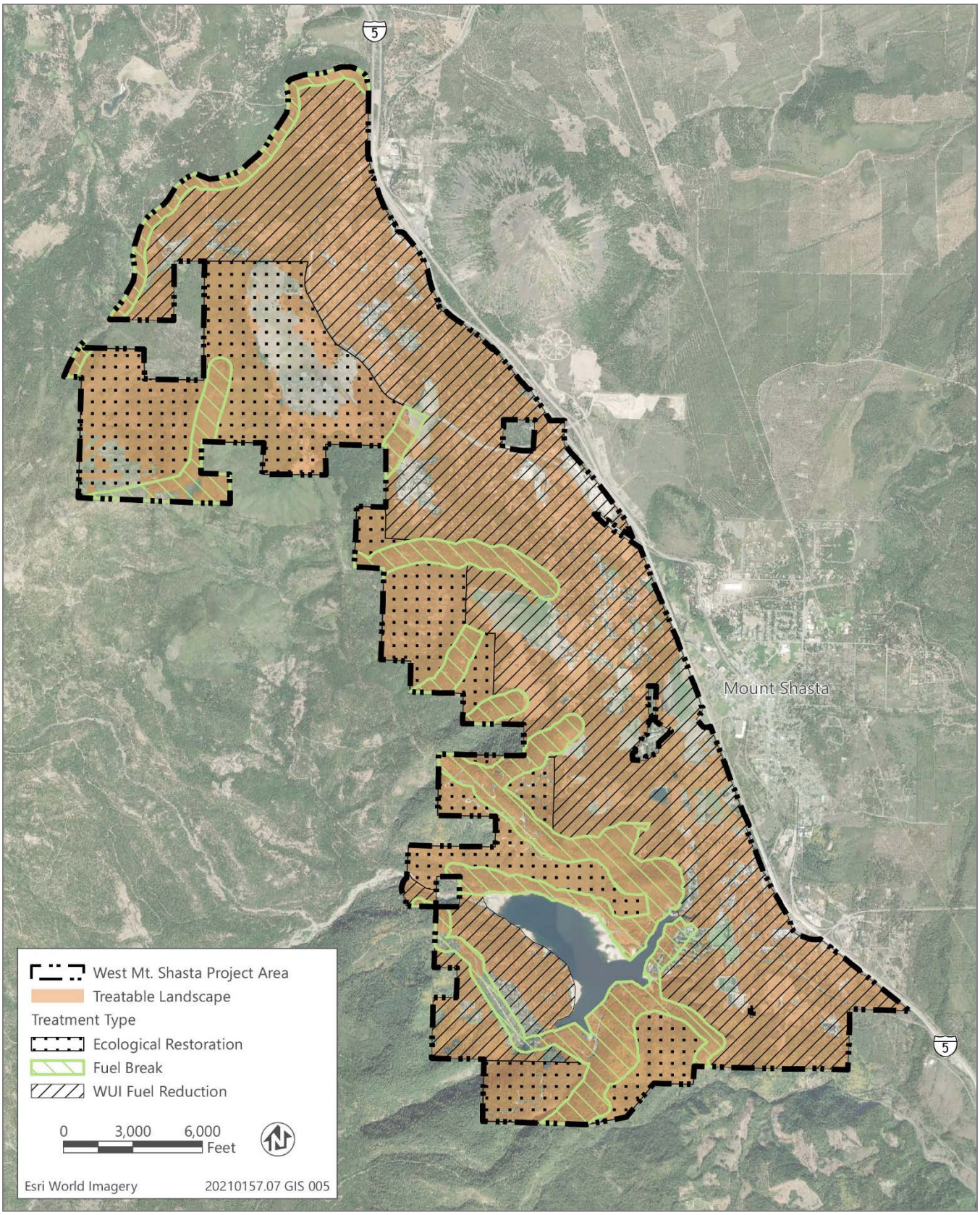
Proposed treatment types consist of ecological restoration, WUI fuel reduction, and fuel breaks. Each treatment type is described in more detail below and consistent with the treatment types described in the CalVTP PEIR. Refer to Figure 1-1 and Figure 2-1 for the location of each treatment type. Table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

ECOLOGICAL RESTORATION

Ecological restoration treatments would be designed to reduce wildfire risk, enhance natural processes, and increase forest health. Ecological restoration treatments would occur in several vegetation types: dry meadows, wet meadows, mixed conifer, hardwood, ponderosa pine, shrublands, and riparian habitat. Species preference (i.e., tree species that would be retained) will vary, but in general will include black oak (*Quercus kelloggii*), sugar pine (*Pinus lambertiana*), ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), Douglas fir (*Pseudotsuga menziesii*), and white fir (*Abies concolor*). Additionally, willow (*Salix* spp.) and aspen (*Populus tremuloides*) sprouts would be retained and live alders (*Alnus* spp.), cottonwoods (*Populus* spp.), aspen, and maples (*Acer* spp.) within riparian areas would be retained. In riparian habitats, all canopy trees or trees providing shade to the water will be retained.

Knobcone pine (*Pinus attenuata*) and western juniper (*Juniperus occidentalis*) would be targeted for treatment, as described below. The cones of knobcone pines are serotinous and only open when exposed to fire (Howard 1992). As a result, this species typically occurs in even-aged forest stands dating back to the last fire (Howard 1992). The lifespan of knobcone pines is relatively short and in the absence of stand-replacing fires, stands of knobcone pine typically include many dead trees (Howard 1992). Western juniper is sensitive to fire and crown fires, or severe surface fires often kill trees of all age classes (U.S. Forest Service 2019). Expansion of western juniper has been attributed in part to modern fire exclusion methods (U.S. Forest Service 2019). While both species are not common in the project area, where present, Western juniper has increased in abundance in the project area and region to conditions that are inconsistent with historic forest structure due to fire exclusion in a frequent-fire ecosystem. Additionally, as a result of fire exclusion and their relatively short lifespan, knobcone pines in the project area (i.e., adjacent to Lake Siskiyou) are generally in poor health. Dead or dying knobcone pines near campgrounds surrounding Lake Siskiyou have become a public hazard.

Meadows in the project area, which are predominantly mapped as wet meadows (USFWS 2021), would be treated with broadcast burning. Wildfire is one of the key disturbance regimes that affects wet meadows in California (Sims et al. 2019). Historically, fires in wet meadows were ignited by natural causes (e.g., lightning) and humans (Dwire and Kauffman 2003; Turner et al. 2011; Lake and Long 2014; Norgaard et al. 2016; Karuk Tribe 2019). Due to modern fire suppression activities, the fire return interval in montane meadows in the project region has increased compared to historical fire frequency (Gross and Coppoletta 2013). A vulnerability analysis conducted in 2019 showed that wet meadows in northern California have moderate-high vulnerability to climate and climate-driven factors (e.g., amount of snowpack, drought, precipitation amount and timing), exposure to projected future climate change, disturbance regimes (e.g., flooding, wildfire), and non-climate stressors (e.g., livestock grazing, dams and water diversions, fire suppression) (Sims et al. 2019). Fire suppression in wet meadows occurring alongside dewatering disturbances have contributed to tree encroachment, lowering of the water table, and increased risk of high-severity wildfire (Sims et al. 2019). Wet meadows are extremely sensitive to the negative impacts of high-severity wildfire (Norgaard et al. 2016; Long and Davis 2016). Wet meadows that are degraded (e.g., hydrologically degraded wet meadows from the implementation of water diversions and ditches, hydrological modification from livestock such as channel incision) have less resistance to disturbance events such as wildfire (Viers et al. 2013) which may increase negative structural change and drying, potentially leading to a transition to upland habitat in the future (Sims et al. 2019).



Sources: Data received from Shasta Valley RCD in 2022; adapted by Ascent in 2022.

Figure 2-1 Proposed Project Treatments

Prescribed burning is a management action capable of improving the adaptive capacity of wet meadows in California that have experienced degradation (Sims et. al 2019). Prescribed burning of appropriate intensity and frequency has multiple benefits in wet meadows. Low- to moderate-intensity fires that are relatively frequent can control conifer encroachment and raise the water table by killing off encroaching seedlings and smaller trees (Lake 2007; Norgaard et al. 2016). Fire also has the potential to increase the flow of water, charcoal, sediment, and woody debris within meadow habitats (Ratliff 1985). Burning that occurs where meadow and forests meet also has the potential to expand the footprint of wet meadows (Ratliff 1985) helping to reduce conifer encroachment. Additionally, prescribed burning assist in the maintenance of culturally important plant populations of value to indigenous tribes (e.g., leopard lily [*Lilium pardalinum*]) (Lake 2007; Norgaard et al. 2016). Treating meadows in the project area with broadcast burning could help achieve these benefits.

Treatments would vary slightly depending on the vegetation type being treated. Ecological restoration treatments would:

- remove all conifers less than 12 inches diameter at breast height (DBH) that are encroaching on meadows;
- remove shrubs (e.g., ceanothus [Ceanothus spp.], manzanita [Arctostaphylos spp.]) and conifers encroaching on meadows;
- remove small diameter (i.e., less than 12 inches DBH) trees where larger (i.e., greater than 12 inches DBH) conifers and oaks exist (e.g., where smaller trees are creating ladder fuels). 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 Registered Professional Forester (RPF) or biologist;
- thin areas where only small diameter trees are present to an average of 24 feet between trees;
- in forest habitats determined to be occupied (i.e., through implementation of protocol-level surveys under SPR BIO-10) or assumed to be occupied for northern spotted owl (*Strix occidentalis caurina*) by a qualified RPF or biologist (e.g., forests with canopy cover greater than 60 percent), 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;
- remove or girdle all non-commercial knobcone pine and western juniper less than 30 inches DBH;
- preferentially remove trees with mistletoe infections, sooty mold, conks (i.e., the spore producing fruiting structures of a fungus) or other signs of rot, broken tops, or other damage;
- retain largest down logs up to three logs per acre and large snags up to two per acre beyond 300 feet from homes (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife) unless the snags pose a hazard to implementation or personnel;
- retain 10 percent of shrubs beyond 300 feet of homes in openings at least 10 feet away from tree canopies, resulting in shrub patches no larger than ¼ acre in size;
- reduce ground fuels to less than 5 tons per acre by prescribed fire, chipping, or mastication;
- prune up lower branches of trees up to 10 feet;
- spray shrubs with herbicides where sprouting species (e.g. tanoak [*Notholithocarpus densiflorus*]) are present; and
- utilize excavators to pull up root balls of sprouting shrubs where herbicides are not viable, and slopes are less than 30 percent.
- The vegetation around homes that are present within areas mapped as Ecological Restoration in Figure 2-1 would be subject to WUI Fuel Reduction treatments, as described below.

WILDLAND-URBAN INTERFACE FUEL REDUCTION

WUI fuel reduction treatments would be designed to reduce wildfire risk, increase forest health, and encourage sustainable species mix. Activities implemented within the WUI fuel reduction treatment type would primarily occur outside of the 100-foot defensible space requirements described in Public Resources Code (PRC) 4291. Treatments would vary slightly depending on the vegetation type being treated. WUI fuel reduction treatments would:

- thin ladder fuels (i.e., hardwoods and conifers) less than 12 inches DBH;
- remove all small diameter (i.e., less than 12 inches DBH) trees where larger (i.e., greater than 12 inches DBH) conifers and oaks exist;
- thin areas where only small diameter trees are present to an average of 24 feet between trees;
- remove all non-commercial knobcone pine and western juniper less than 30 inches DBH;
- preferentially remove trees with mistletoe infections, sooty mold, conks or other signs of rot, broken tops, or other damage;
- remove all down logs within 300 feet of homes;
- remove all shrubs within 300 feet of homes;
- reduce ground fuels to less than 5 tons per acre by prescribed fire, chipping, or mastication;
- prune up lower branches of trees up to 10 feet;
- spray shrubs with herbicides where sprouting species (e.g. tanoak) are present; and
- utilize excavators to pull up root balls of sprouting shrubs where herbicides are not viable, and slopes are less than 30 percent.

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 responders with a staging area or access to a remote landscape for fire control actions. They can also provide safe emergency egress during wildfires. Fuel breaks would mostly be shaded; however, unshaded fuel breaks may be implemented in areas that contain only shrubs (i.e., no tree canopy). Areas containing only shrubs are not numerous in the project area (i.e., approximately 13 percent of the project area contains "shrub" land cover; see Table 4.5-1, below). Fuel breaks would be established along strategic topographic locations (e.g., on ridge tops); adjacent to roads, and near high-use areas (e.g., homes, infrastructure), as shown in Figure 2-1. Fuel breaks would:

- thin ladder fuels (i.e., hardwoods and conifers) less than 12 inches DBH;
- remove all small diameter (i.e., less than 12 inches DBH) trees where larger (i.e., greater than 12 inches DBH) conifers and oaks exist;
- thin areas where only small diameter trees are present to an average of 24 feet between trees;
- remove all non-commercial knobcone pine and western juniper less than 30 inches DBH;
- preferentially remove trees with mistletoe infections, sooty mold, conks or other signs of rot, broken tops, or other damage;
- remove all down logs within 300 feet of the center line of a fuel break;
- remove all shrubs within 300 feet of the center line of a fuel break;
- reduce ground fuels to less than 5 tons per acre by prescribed fire, chipping, or mastication;
- prune up lower branches of trees up to 10 feet;

- spray shrubs with herbicides where sprouting species (e.g., tanoak) are present; and
- utilize excavators to pull up root balls of sprouting shrubs where herbicides are not viable, and slopes are less than 30 percent.

2.1.2 Treatment Activities

The proposed vegetation treatment activities are prescribed burning, mechanical treatments, manual treatments, and herbicide application. Biomass would be disposed of through masticating, chipping, piling and burning, lopping and scattering, or hauling off-site in the project area. Each of these activities is included in the CalVTP PEIR and is described in more detail below.

PRESCRIBED BURNING

Prescribed burning would occur on up to 9,000 of the 12,966 acres proposed for treatment and consists of two general types, pile burning and broadcast burning (underburning).

Pile burning: Biomass from mechanical and manual treatments would be piled using equipment (e.g., skid steer, tractor, bulldozer or excavator) or hand crews and burned appropriately. Pile burning would occur in areas with little to no live overstory. Piles would be limited to 12 piles per acre in dry meadows, and pile burning would not occur in wet meadows or within WLPZs.

Broadcast Burning: Broadcast burning would be used to promote forest health and native flora and reduce biomass and fuel loading in grassland, woodland, and/or forest vegetation. Pretreatment of vegetation using mechanical/manual activities or herbicide application may occur, where necessary, in areas proposed for broadcast burning. Broadcast burning in meadow habitats would help restore historic fire intervals to meadows, reduce fine fuels, and rejuvenate native grasses and willows. This treatment would also help to decrease conifer encroachment, raise the water table by removing conifer seedlings and small trees, and increase the adaptive capacity of meadow habitats in the project area, increasing resistance and resilience to wildfire impacts (see discussion under "*Ecological Restoration*," above). Some meadows that are currently grazed by livestock may not be subject to broadcast burning because, post-grazing, these meadows would not contain fine fuels requiring treatment and these meadows would likely continue to be used for grazing annually.

Understory burns would be implemented in accordance with a specific prescription that defines the desired maximum flame lengths and fire spread rates based on the fuel types, weather, slopes, aspect, staffing levels and containment lines and strategies set out in a burn plan. Interior portions of prescribed fires may exceed the prescribed flame lengths planned at the control lines, but the overall prescription is designed to safely contain the fire within the planned fire perimeter. Burns could occur from September through June during which conditions would be conducive to burning targeted fuels. Broadcast burning may require the construction of new control lines or enhancement of existing control lines using manual and mechanical treatments, including construction of handline, mow lines, or dozer lines. In meadows, if control lines are needed, they would be constructed only by hand and would be implemented pursuant to limitations in CalVTP PEIR Mitigation Measure BIO-4 (i.e., fire containment lines will not be constructed within wetland buffers).

Broadcast burning ignition will be conducted with handheld devices such as drip torches, propane torches, fusees, and Very pistols (i.e., flare guns). In meadows, which are sensitive to residual fuel, propane torches would be the only ignition technique used to prevent contamination while still allowing direct ignitions in meadows required to control fire behavior.

Broadcast 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 2 weeks. Equipment could include water trucks, fire engines, dozers, ATVs, UTVs, hand tools, leaf blowers, weed trimmers, drip torches, propane torches (for broadcast burns in meadows) and chainsaws. All burning will occur in accordance with regulations regarding the use of prescribed

burning. This would include the preparation and implementation of a burn plan that includes a smoke management plan, where applicable.

MECHANICAL VEGETATION TREATMENT

Mechanical treatments would occur on up to 5,400 of the 12,966 acres proposed for treatment and would primarily include masticating target vegetation to reduce ladder fuels and increase space between trees and chipping biomass from manual and mechanical treatment activities. Excavators may be used to pull up root balls of sprouting shrubs where herbicides are not viable, and slopes are less than 30 percent. Equipment would include masticators, chippers (tracked and wheeled), and excavators (see details in Table 2-1). Mechanical treatments would typically require between 1 and 50 crew members, and up to four crews. Generally, mechanical treatments would:

- remove ladder fuels less than 12 inches DBH;
- remove shrubs;
- prune up lower branches of trees;
- masticate or chip biomass for disposal; and
- remove down logs.

Mechanical treatments would not be conducted within WLPZs. Some mechanical treatments may be conducted by reaching an excavator arm into a meadow or WLPZ such that no ground disturbance would occur within meadows or WLPZs.

MANUAL VEGETATION TREATMENT

Manual treatments would occur on up to 8,500 of the 12,966 acres proposed for treatment and would primarily include hand thinning and pruning target vegetation to reduce ladder fuels and increase space between trees, and hand piling removed vegetation. Equipment would include chainsaws, pole saws, weed-trimmers, and other hand tools (see details in Table 2-1). Manual treatments would typically require between 1 and 50 crew members, and up to four crews. Generally, manual treatments would:

- remove ladder fuels less than 12 inches DBH;
- remove shrubs;
- prune up lower branches of trees; and
- remove down logs.

HERBICIDE

Herbicide application would occur on up to 3,100 of the 12,966 acres proposed for treatment and would occur where sprouting species such as tanoak are present to reduce the costs and need for constant maintenance. Herbicides that may be applied are listed below, which are consistent with those considered for use in the CalVTP:

- Glyphosate
- Triclopyr
- Imazapyr

Only ground-level application would occur; no aerial spraying of herbicides would occur. Herbicide treatments would typically use one 10-person crew. Several herbicide application methods are available for use by on-the-ground personnel, including paint-on stems and/or backpack hand-applicators. Herbicide application would comply with the U.S. Environmental Protection Agency (EPA) label directions, as well as California EPA and California Department of Pesticide Regulation label standards. All herbicide application would be performed by certified and licensed pesticide

applicators in accordance with all local, state, and federal regulations. Only herbicides labeled for use in aquatic environments will be used when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides will be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry. No terrestrial or aquatic herbicides will be applied within WLPZs of Class I and II watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ provided that the project proponent notifies the applicable regional water quality control board no fewer than 15 days before herbicide application.

BIOMASS DISPOSAL

Vegetation removed during implementation of the proposed vegetation treatments described above would primarily be disposed of by the following means:

- Masticating (40 percent of biomass): Vegetative debris would be removed and placed on the ground concurrently with vegetation removal and the biomass remaining after mastication would be no more than 6 inches deep.
- Chipping (25 percent of biomass): Chipped biomass would be spread over treatment areas and would not exceed 4 inches in depth in dry meadows, 2 inches in depth in wet meadows and riparian habitats, and 6 inches in depth in other habitats (i.e., forests, shrublands).
- Piling and burning (20 percent of biomass): In some areas, pile burning may be used to dispose of slash, chipped, and masticated materials. Piles would be limited to 12 piles per acre in dry meadows. Piling would not occur in wet meadows or within WLPZs.
- Lop and Scatter (5 percent of biomass): Cut vegetation would be scattered within the treatment area.
- Removing chips offsite (10 percent of biomass): Haul chips to biomass facility without charge to the recipient.

Invasive plant and noxious weed biomass will be treated onsite to eliminate seed and propagules or will 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 will not be chipped and spread, scattered, or mulched onsite.

2.2 TREATMENT MAINTENANCE

Maintenance, or retreatment, of the areas treated under the proposed project could include the same treatment types (i.e., ecological restoration, WUI fuel reduction, fuel breaks) and treatment activities (i.e., prescribed burning, mechanical treatments, manual treatments, herbicide application) as described above for the initial treatments. Retreatment would be dependent on regrowth conditions and would differ by location. However, retreatment is anticipated to occur between 5 and 10 years.

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

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

3 ENVIRONMENTAL CHECKLIST

VEGETATION TREATMENT PROJECT INFORMATION

1. **Project Title:** West Mount Shasta Forest Resiliency Project
2. **CalVTP I.D. Number:** 2022-10
3. **Project Proponent's Name and Address:** Shasta Valley Resource Conservation District
   215 Executive Ct. A
   Yreka, CA 96097
4. **Contact Person Information and Phone Number:** Lyndsey Lascheck
   530.572.3120
   llascheck@svrcd.org
5. **Project Location:** Siskiyou County, west of I-5 and the City of Mt. Shasta, north of the City of Dunsmuir, south of the City of Weed, east of Shasta-Trinity National Forest
6. **Total Area to Be Treated (acres)** 12,966
7. **Description of Project**: Treatments would involve prescribed burning, mechanical and manual treatments, and herbicide application. See Section 2, above for additional details.

   a. Initial Treatment
   Initial treatments would include ecological restoration, WUI fuel reduction, and fuel break treatments by prescribed burning, manual treatment, mechanical treatment, and herbicide application 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), 9,000 acres

   ☒ Prescribed Burning (Pile Burning), 9,000 acres

   ☒ Mechanical Treatment, 5,400 acres

   ☒ Manual Treatment, 8,500 acres

   ☐ Prescribed Herbivory, 0 acres

   ☒ Herbicide Application, 3,100 acres

   Fuel Type

   ☒ Grass Fuel Type

   ☒ Shrub Fuel Type

   ☒ Tree Fuel Type

   b. Treatment Maintenance
   Maintenance treatments would involve prescribed burning, mechanical and manual treatments, and herbicide application. See Section 2.2, above for additional details.

Treatment Types

☒ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast), 9,000 acres

☒ Prescribed Burning (Pile Burning), 9,000 acres

☒ Mechanical Treatment, 5,400 acres

☒ Manual Treatment, 8,500 acres

☐ Prescribed Herbivory, 0 acres

☒ Herbicide Application, 3,100 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

Prior to implementing a maintenance treatment, the project proponent will verify that the expected site conditions as described in the PSA are present in the treatment area. As time passes, the continued relevance of the PSA will be considered by the project proponent in light of potentially changed conditions or circumstances. Where the project proponent determines the PSA is no longer sufficiently relevant, the project proponent will determine whether a new PSA or other environmental analysis is warranted.

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

8. Regional Setting and Surrounding Land Uses:

   The project area is situated in central Siskiyou County west of the City of Mt. Shasta, north of the City of Dunsmuir, south of the City of Weed, and east of Shasta-Trinity National Forest. Surrounding land uses include national forest land, public and private timberland, rural residential development, Lake Siskiyou, recreation areas, grazing and agricultural lands, and open space.

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

   Pesticide application permit from Siskiyou County Agricultural Commissioner

   Smoke management plan will be prepared for Siskiyou County Air Pollution Control District, when required

   Burn permits from Siskiyou County Air Pollution Control District, when required

   Burn permits from CAL FIRE, when required

   Coastal Act Compliance

   ☒ The proposed project is NOT within the Coastal Zone

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

☐ A coastal development permit been applied for or obtained from the local Coastal Commission district office or local government with a certified Local Coastal Plan, as applicable

☐ The local Coastal Commission district office or local government with a certified Local Coastal Plan (in consultation with the local Coastal Commission district office) has determined that a coastal development permit is not required

10. 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 PEIR; however, CalVTP SPR CUL-2 includes for a requirement for further tribal coordination during PSA preparation.*

Pursuant to SPR CUL-2, Native American contacts in Siskiyou County were contacted on May 11, 2022, and included Alex Watts-Tobin, Tribal Historic Preservation Officer, Karuk Tribe; Russell Attebery, Chairperson, Karuk Tribe; Gary Frost, Klamath Tribe; Robert Burkybile, Operations Manager, The Modoc Tribe of Oklahoma; Troy LittleAxe, Assistant Tribal Administrator, Modoc Tribe of Oklahoma; Freida Bennett, Chairperson, Quartz Valley Indian Community; Sami Jo Difuntorum, Cultural Resource Coordinator, Shasta Indian Nation; Roy Hall, Chairperson, Shasta Nation; Mark Miyoshi, Tribal Historic Preservation Officer, Winnemem Wintu Tribe; Caleen Sisk, Chief, Winnemem Wintu Tribe; Wade McMaster, Chairperson, Wintu Tribe of Northern California; and Howard Wynant, Shasta Nation. Responses were received from the Modoc Nation, the Winnemum Wintu, and the Klamath Tribes. On May 31, 2022, the Klamath Tribes sent two emails, one stating that a portion of the project area was not located in their aboriginal territory, and a second stating that the remainder of the project area needed current archaeological surveys to be conducted and that Native American sites should be flagged and avoided. The Modoc Nation responded on May 17, 2022 and expressed support for the project.

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 PEIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP PEIR will be implemented. The proposed project is, therefore, **WITHIN THE SCOPE** of the CalVTP PEIR. **NO ADDITIONAL CEQA DOCUMENTATION** is required.

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

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

☐ I find that the proposed project will have effects that were not covered in the CalVTP PEIR or will have effects that are substantially more severe than those covered in the CalVTP PEIR. Although these effects may be significant in the absence of additional mitigation beyond the CalVTP PEIR's measures, revisions to the proposed project or additional mitigation measures have been agreed to by the project 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 PEIR and/or (b) substantially more severe than those covered in the CalVTP PEIR. Because one or more effects may be significant and cannot be clearly mitigated to less than significant, an ENVIRONMENTAL IMPACT REPORT will be prepared.

Signature

December 21, 2022

Date

Rod Dowse

Printed Name

District Manager

Title

Shasta Valley Resource Conservation District

Agency

4 PROJECT-SPECIFIC ANALYSIS/ADDENDUM

4.1 AESTHETICS AND VISUAL RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	LTS	Impact AES-1, pp. 3.2-16 – 3.2-19	Yes	AES-2 AQ-2 AQ-3 REC-1	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	Yes	NA	AES-3	SU	No	Yes

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

New Aesthetic and Visual Resource Impacts: Would the treatment result in other impacts to aesthetics and visual resources that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT AES-1

Initial and maintenance treatments would include prescribed burning, mechanical treatment, manual treatment, and targeted ground application of herbicides. The potential for these treatment activities to result in short-term degradation of the visual character of a treatment area was examined in the PEIR. The nearest eligible state scenic highway to the project area is I-5 east of the project area (Caltrans 2022). The proposed treatments would occur on public and private lands. Public viewpoints within and near the project area from which treatments would be visible include public trails (e.g., Black Butte Trailhead) and recreation areas (e.g., Siskiyou Lake Beach), and I-5 and other public roadways. Although portions of the project area are visible from public viewpoints and an eligible state scenic highway, the project area is densely vegetated with mature trees, buildings, and varied topography, which would substantially reduce the visibility of treatments from public viewpoints. In addition, treatments would remove shrubs and trees smaller than 12 inches DBH, leaving overstory vegetation. Although in the short-term after treatment, the absence of treated vegetation could be noticeable, mature vegetation would remain to provide partial screening of treatment areas. However, equipment, crews and smoke from prescribed burning could be visible from public viewpoints and an eligible state scenic highway (I-5) in the short term. The potential for the project to result in short-term substantial degradation of the visual character of the project area is within the scope of the PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include smoke management plans that would meet the same standards as required under CAL FIRE burn plans.

For these reasons, proposed revisions to SPR AQ-3 would not result in increased smoke emissions or smoke-related impacts. Therefore, revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on aesthetics and visual resources than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside the treatable landscape; therefore, the short-term aesthetic impact is also the same, as described above. SPRs applicable to this impact are AES-2, AQ-2, AQ-3, and REC-1. As explained above, impacts on aesthetics and visual resources resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

IMPACT AES-2

Initial and maintenance treatments would include WUI fuel reduction, 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 PEIR. Public viewpoints of the project area include public trails and recreation areas (e.g., Siskiyou Lake Beach), and I-5 and other public roadways. Treatments would remove shrubs and trees smaller than 12 inches DBH, leaving overstory vegetation. Therefore, mature vegetation would remain to provide partial screening of treatment areas. The long-term visual character of the treatment areas after implementation of the proposed WUI fuel reduction, 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 PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR. 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 PEIR. 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT AES-3

Fuel breaks in the project area would mostly be shaded; however, non-shaded fuel breaks may be implemented in areas that contain only shrubs (i.e., no tree canopy). Areas containing only shrubs (i.e., shrub/scrub habitat) are not numerous in the project area (i.e., approximately 1,640 acres of the total 12,966 acres; Table 4.5-1). The potential for this treatment type to result in long-term degradation of the visual character of an area was examined in the PEIR and found to be significant and unavoidable after the application of all feasible mitigation measures because it may be infeasible to relocate a non-shaded fuel break to avoid public visibility. Public viewpoints of the project area include public trails and recreation areas (e.g., Siskiyou Lake Beach), and public roadways. Although I-5, which is eligible as a state scenic highway, is near the eastern boundary of the project area, no non-shaded fuel breaks would be implemented in the eastern portion of the project area (Figure 2-1). However, non-shaded fuel breaks could be visible from public viewpoints.

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

NEW AESTHETIC AND VISUAL RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities covered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.2.1, "Environmental Setting," and Section 3.2.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR and revisions to SPRs constitute a revision to the Program. 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 PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impact. Therefore, no new impact related to aesthetics and visual resources would occur.

4.2 AGRICULTURE AND FORESTRY RESOURCES

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

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

New Agriculture and Forestry Resource Impacts: Would the treatment result in other impacts to agriculture and forestry resources that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT AG-1

Vegetation treatment activities implemented within the project area would include manual, mechanical, prescribed burning, and herbicide treatments to conduct ecological restoration, wildland-urban interface (WUI) fuel reduction, and fuel break treatment types. The creation of shaded fuel breaks would involve the thinning of the tree canopies in forested areas by removing live trees up to 12 inches DBH. Live trees greater than 12 inches DBH would be limbed up to 10 feet high. In areas where there are only small diameter trees (i.e., less than 12 inches DBH) present, spaces of 24 feet would be created between trees. Herbicides would be used when sprouting species (e.g., tanoak) are present.

The potential for these treatment types and treatment activities to result in the loss of forestland or conversion of forestland to non-forest use was examined in the PEIR. The treatment activities described above would occur in forested lands. Consistent with the PEIR, the vegetation remaining after treatments would meet the definition of forestland as defined in PRC Section 12220(g), which defines "forest land" as land that can support 10-percent native tree cover of any species under natural conditions. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the composition of forested land as defined in PRC Section 12220(g) is essentially the same within and outside the treatable landscape; therefore, the impact to forest land is also the same, as described above. No SPRs are applicable to this impact. Therefore, the potential for the project to result in the loss or conversion of forestland is within the scope of the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW AGRICULTURE AND FORESTRY RESOURCE IMPACTS

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

4.3 AIR QUALITY

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	SU	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-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	AQ-2 AQ-4 AQ-6	NA (No feasible mitigation available)	SU	No	Yes
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5, pp. 3.4-37 – 3.4-38	Yes	AQ-1 HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	SU	Impact AQ-6; pp. 3.4-38	Yes	AD-4 AQ-2 AQ-6	NA (No feasible mitigation available)	SU	No	Yes

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

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

Discussion

Pursuant to SPR AQ-2, the project proponent will prepare a smoke management plan and submit it to the Siskiyou County Air Pollution Control District (SCAPCD), following requirements from SCAPCD before implementing any prescribed burning treatment. In addition, the project proponent will prepare a burn plan as required by SPR AQ-3, which may, but is not required to include, outputs from fire behavior modeling programs to predict fire behavior and determine minimum resource requirements and will be implemented by a qualified technician or certified State burn boss. Pursuant to SPR AQ-6, an Incident Action Plan would be prepared that includes elements appropriate for the size and scope of the burn. The burn plan will identify the contact personnel with SCAPCD 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 PEIR. Emissions of criteria air pollutants related to the proposed treatment are within the scope of the PEIR because the associated equipment and duration of use are consistent with those analyzed in the PEIR. 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 project proponent to implement. Because the treatments would be implemented by an RCD with limited funding, it is cost prohibitive to use equipment meeting the latest efficiency standards, including meeting the U.S. EPA's Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology. In addition, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. For these reasons, and as explained in the PEIR, this impact would remain significant and unavoidable.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include smoke management plans that would meet the same standards as required under CAL FIRE burn plans.

For these reasons, proposed revisions to SPR AQ-3 would not result in greater generation of emissions of criteria air pollutants and precursors, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on air quality than what was covered in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that Incident Action Plans would be prepared that include elements appropriate for the size and scope of the burn.

For these reasons, proposed revisions to SPR AQ-6 would not result in greater generation of emissions of criteria air pollutants and precursors, and revisions to SPR AQ-6, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on air quality than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the air quality conditions present and air basin in the areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this impact are AD-4, and AQ-1 through AQ-6. As explained above, impacts on air quality resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

IMPACT AQ-2

Use of mechanical equipment during initial and maintenance treatments could expose people, such as hikers and recreationalists around Lake Siskiyou, 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 PEIR. Diesel particulate matter emissions from the proposed treatments are within the scope of the PEIR because the exposure potential is the same as analyzed in the PEIR, 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 PEIR. 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 PEIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors (i.e., exposure potential) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this impact are HAZ-1, NOI-4, and NOI-5. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT 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 PEIR. Most of the treatment areas are not located on soil types where NOA would be present; however, portions of the project area are underlain by serpentine soils (See Section 4.6, "*Geology, Soils, Paleontology, and Mineral Resources*") and serpentine soils were observed during the reconnaissance-level survey for biological resources. 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 SCAPCD. Potential NOA exposure from the proposed treatments is within the scope of the activities and impacts addressed in the PEIR because the exposure potential is essentially the same within and outside the treatable landscape and avoidance of treatments in NOA-containing areas is consistent with the impacts analyzed in the PEIR. 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 PEIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT AQ-4

Prescribed burning during initial and maintenance treatments could expose people to toxic air contaminants, which was examined in the PEIR. The duration and parameters of the prescribed burns are within the scope of the activities addressed in the PEIR, and within the SCAPCD, air quality conditions are consistent with those analyzed in the PEIR for Siskiyou County. Therefore, the potential for exposure to toxic air contaminants is also within the scope the PEIR. 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 PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that Incident Action Plans would be prepared that include elements appropriate for the size and scope of the burn. For these reasons, proposed revisions to SPR AQ-6 would not result in greater exposure of people to toxic air contaminants, and revisions to SPR AQ-6, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on air quality than what was covered in the PEIR.

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 PEIR. 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 this impact are AQ-2, AQ-4, and AQ-6. As explained above, impacts on air quality resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

IMPACT AQ-5

Use of diesel-powered equipment during vegetation treatments could expose people to objectionable odors from diesel exhaust. The potential to expose people to objectionable odors from diesel exhaust was examined in the PEIR. Consistent with the PEIR, 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 PEIR because the equipment that would be used and the duration of use under the proposed project are consistent with what was analyzed in the PEIR. SPRs applicable to the proposed project are AQ-1, HAZ-1, NOI-4, and NOI-5. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

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 PEIR. The duration and parameters of the prescribed burn and the exposure potential are consistent with the activities addressed in the PEIR. Therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the PEIR. SPRs that are applicable to this treatment project are AD-4, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke odors, as well as exposure to smoke odors, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain significant and unavoidable, as explained in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that Incident Action Plans would be prepared that include elements appropriate for the size and scope of the burn. For these reasons, proposed revisions to SPR AQ-6 would not result in greater exposure of people to objectionable odors from smoke, and revisions to SPR AQ-6, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on air quality than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the air quality conditions present and sensitive receptors in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this impact are AD-4, AQ-2, and AQ-6. As explained above, impacts on air quality resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

NEW AIR QUALITY IMPACTS

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

4.4 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources	LTS	Impact CUL-1, pp. 3.5-14 – 3.5-15	Yes	CUL-1 CUL-7 CUL-8	NA	LTS	No	Yes
Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources	SU	Impact CUL-2, pp. 3.5-15 – 3.5-16	Yes	CUL-1 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 PEIR for this impact.

New Archaeological, Historical, and Tribal Cultural Resource Impacts: Would the treatment result in other impacts to archaeological, historical, and tribal cultural resources that are not evaluated in the CalVTP PEIR?	☐ 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 12,966-acre project area, including areas within and outside of the CalVTP treatable landscape, was performed by the Northeast Information Center (NEIC) on March 15, 2021 (NCIC File No. D22-67). The search revealed 42 previously recorded archaeological sites and historic features within the project area. Only one is a built-environment historic feature, an electrical distribution line. This feature has been evaluated for inclusion on the California Register of Historical Resources (CRHR) and was recommended ineligible; therefore, it is not a resource under CEQA. Of the remaining 41 archaeological sites, 15 are Native American in nature (bedrock milling features, pestles, and lithic scatters), and 26 are historic-era archaeological sites (abandoned water conveyance systems, mine tailings, trash scatters, roadbeds, structure pads, and railroad grades). None of the

archaeological sites have been evaluated for CRHR eligibility. Two are "isolates," which are generally not eligible for listing in the CRHR. Isolates are defined as one or two artifacts occurring by themselves and not associated with an archaeological site, and therefore have no historical context with which to evaluated against significance criteria.

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On May 11, 2022, letters inviting the tribes to consult were emailed to the 11 tribal representatives indicated by NAHC and one additional contact included on the CAL FIRE Native American Contact List. Responses were received from the Modoc Nation, the Winnemum Wintu, and the Klamath Tribes. On May 31, 2022, the Klamath Tribes sent two emails, one stating that a portion of the project area was not located in their aboriginal territory, and a second stating that the remainder of the project area needed current archaeological surveys to be conducted and that Native American sites should be flagged and avoided. The Modoc Nation responded on May 17, 2022, and expressed support for the project. A May 2, 2022 search of NAHC's sacred lands database returned negative results.

IMPACT CUL-1

Proposed treatment activities include mechanical treatments and prescribed burning, which could damage historical resources. Although the NEIC records search revealed one historic feature, it was previously evaluated and recommended not eligible for listing in the CRHR. Therefore, it is not considered a resource under CEQA. 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; these structures will 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 PEIR. This impact is within the scope of the PEIR, because treatment activities and the intensity of ground disturbance of the treatment project are consistent with those analyzed in the PEIR. 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 PEIR. 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 to 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT CUL-2

Vegetation treatment would include mechanical treatments using heavy equipment that could churn up the surface of the ground during treatment as vegetation is removed; this may result in damage to known or previously unknown archaeological resources. The NEIC records search revealed 41 archaeological sites; however, none of these have been evaluated for eligibility for listing in the CRHR. Therefore, it is not known whether these sites are considered resources under CEQA. A survey will be conducted before treatment pursuant to SPR CUL-4 to identify any previously unrecorded archeological resources and identified resources will 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 PEIR. This impact was identified as significant and unavoidable in the PEIR 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 West Mount Shasta Forest Resiliency 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, given the large geographic extent of the project area and uncertainty regarding the potential extent of damage during inadvertent excavation of an unknown resource, if it occurred, this impact would remain significant and unavoidable, as explained in the PEIR.

This impact is within the scope of the PEIR, because treatment activities and intensity of ground disturbance of the treatment project are consistent with those analyzed in the PEIR. 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 PEIR. 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 to unique archaeological resources or subsurface historical resources is also the same, as described above. SPRs applicable to this impact are 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT CUL-3

Native American contacts in Siskiyou County were contacted on May 11, 2022, and included Alex Watts-Tobin, Tribal Historic Preservation Officer, Karuk Tribe; Russell Attebery, Chairperson, Karuk Tribe; Gary Frost, Klamath Tribe; Robert Burkybile, Operations Manager, The Modoc Tribe of Oklahoma; Troy LittleAxe, Assistant Tribal Administrator, Modoc Tribe of Oklahoma; Freida Bennett, Chairperson, Quartz Valley Indian Community; Sami Jo Difuntorum, Cultural Resource Coordinator, Shasta Indian Nation; Roy Hall, Chairperson, Shasta Nation; Mark Miyoshi, Tribal Historic Preservation Officer, Winnemem Wintu Tribe; Caleen Sisk, Chief, Winnemem Wintu Tribe; Wade McMaster, Chairperson, Wintu Tribe of Northern California; and Howard Wynant, Shasta Nation. The Klamath Tribes responded, requesting that a portion of the project area needed current archaeological surveys to be conducted (as required by SPR CUL-4) and that Native American sites should be flagged and avoided (as required by SPR CUL-5).

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 PEIR. This impact is within the scope of the PEIR, because the intensity of ground disturbance of the treatment project is consistent with that analyzed in the PEIR. As explained in the PEIR, 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 PEIR. 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 to tribal cultural resources is also the same, as described above. SPRs applicable to this impact are CUL-1 through CUL-6 and CUL-8. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT CUL-4

Vegetation treatment activities would include mechanical treatments using heavy equipment; these treatments may use skid steers, excavators, dozers, and masticators, which could uncover human remains. The NEIC 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 PEIR. This impact is within the scope of the PEIR, because the treatment activities and intensity of ground disturbance are consistent with those analyzed in the PEIR. Additionally, consistent with the PEIR, 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 PEIR. 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCE IMPACTS

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

4.5 BIOLOGICAL RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTSM	Impact BIO-1, pp 3.6-131 – 3.6-138	Yes	AQ-3 AQ-4 BIO-1 BIO-2 BIO-7 BIO-9 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-4 HYD-5	BIO-1a BIO-1b	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTSM (all wildlife species except bumble bees) 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 HAZ-5 HAZ-6 HYD-1 HYD-4	BIO-2a BIO-2b BIO-2c	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 HYD-5	BIO-3a BIO-3b BIO-3c	LTSM	No	Yes
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTSM	Impact BIO-4, pp 3.6-191 – 3.6-192	Yes	BIO-1 HYD-1 HYD-4	BIO-4	LTSM	No	Yes
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTSM	Impact BIO-5, pp 3.6-192 – 3.6-196	Yes	BIO-1 BIO-4 BIO-5 BIO-10 HYD-1 HYD-4	BIO-5	LTSM	No	Yes

Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
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 PEIR for this impact.

New Biological Resources Impacts: Would the treatment result in other impacts to biological resources that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with 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, wetlands) with potential to occur in the project area. U.S. Forest Service Existing Vegetation (EVEG) mapping was used to identify the habitat/vegetation types within the project area.

The project area spans two different ecoregions (from west to east): the Klamath Mountains ecoregion and the Southern Cascades ecoregion. The project area ranges in elevation from approximately 2,850 feet to 6,000 feet. Habitat types within the project area and total acreage of each type are presented in Table 4.5-1.

Table 4.5-1 Habitat Types in the Project Area

Habitat Type	Fuel Break Acreage	WUI Fuel Reduction Acreage	Ecological Restoration Acreage	Total Acreage
Forest/Woodland				
Sierran Mixed Conifer	1,041.4	1,627.9	1,142.4	**3,814.1**
Eastside Pine	46.6	1,626.9	52.2	**1,725.8**
Montane Hardwood-Conifer	405.8	472.7	554.9	**1,434.8**
Montane Hardwood	129.0	322.2	301.5	**752.7**

Habitat Type	Fuel Break Acreage	WUI Fuel Reduction Acreage	Ecological Restoration Acreage	Total Acreage
Ponderosa Pine	78.9	133.8	24.2	**236.9**
White Fir	22.2	0.0	28.7	**50.9**
Closed-Cone Pine-Cypress	0.0	19.6	20.4	**40.0**
Red Fir	8.4	2.5	15.7	**26.6**
Douglas Fir	0.0	3.0	0.3	**3.4**
Forest/Woodland Total	–	–	–	***8,085.2***
Shrub/Scrub				
Montane Chaparral	225.9	888.2	521.7	**1,636.5**
Bitterbrush	3.1	2.5	0.0	**5.6**
Shrub/Scrub Total	–	–	–	***1,642.1***
Herbaceous				
Annual Grassland	15.6	813.1	149.3	**979.0**
Perennial Grassland	2.9	218.3	0.4	**221.6**
Herbaceous Total	–	–	–	***1,200.6***
Wetland/Riparian				
Wet Meadow	15.3	461.6	354.9	**831.8**
Lacustrine	30.9	44.0	0.0	**460.1**
Montane Riparian	0.0	9.5	0.0	**9.5**
Valley Foothill Riparian	1.8	0.02	3.5	**5.3**
Wetland/Riparian Total	–	–	–	***1,306.7***
Agricultural				
Pasture	0.0	50.5	0.0	**50.5**
Deciduous Orchard	0.0	1.4	0.0	**1.4**
Agricultural Total	–	–	–	***51.9***
Developed/Disturbed/Barren[1]				
Urban	30.0	381.4	0.0	**411.4**
Barren	21.6	224.8	23.1	**276.0**
Developed/Disturbed/Barren Total	–	–	–	***687.4***
All Habitat Types Total	–	–	–	**12,973.8**

Source: U.S. Forest Service EVEG vegetation data, compiled by Ascent Environmental 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 California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the U.S. Geological Survey (USGS) quadrangles containing and surrounding the project area (15 quadrangles total; CNDDB 2022; CNPS 2022); the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2022); and Appendix BIO-3 (Table 5a, Table 5b, Table 18a, Table 18b, and Table 19) in the PEIR (Volume II) for special-status plants and wildlife that could occur in the Klamath Mountains and Southern Cascades ecoregions. 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 2022) and reviewing Table 3.6-11 (pages 3.6-47 – 3.6-49) and Table 3.6-31 (pages 3.6-110 – 3.6-111) in the PEIR (Volume II) for sensitive natural communities that could occur in the Klamath Mountains and Southern Cascades ecoregions in the habitat types mapped in the project area.

Ascent conducted reconnaissance surveys on March 21, 22, 23, and 24, 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 habitat 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). Sixty-one of the special-status plants and 29 of the special-status wildlife from the complete list of species were determined to potentially 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 That May Occur in the Project Area

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Special-Status Plants					
Vanilla-grass *Anthoxanthum nitens* ssp. *nitens*	–	–	2B.3	Meadows and seeps. Wet sites. 10–6,220 feet in elevation. Blooms April–July. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Klamath manzanita *Arctostaphylos klamathensis*	–	–	1B.2	Rocky outcrops and slopes, sometimes on serpentine. 4,690–7,380 feet in elevation. Blooms May–August. Perennial.	*May occur*. Rocky outcrop habitat potentially suitable for this species is present in the project area.
Woolly balsamroot *Balsamorhiza lanata*	–	–	1B.2	Open woods, grassy slopes. Volcanic substrates. 2,625–6,220 feet in elevation. Blooms April–June. Perennial.	*May occur*. Grassy slopes in open wood habitat with volcanic substates potentially suitable for this species is present in the project area. There is a documented occurrence in the general vicinity of the project area from 1998 (CNDDB 2022).
Silky balsamroot *Balsamorhiza sericea*	–	–	1B.3	Lower montane coniferous forest. Collections from Douglas fir forest and Jeffrey pine forest. Serpentine outcrops, rocky slopes. Strict serpentine endemic. 2,790–6,990 feet in elevation. Blooms July–May. Perennial.	*May occur*. Serpentine in lower montane coniferous forest with rocky slope habitat potentially suitable for this species is present in the project area.
Scalloped moonwort *Botrychium crenulatum*	–	–	2B.2	Moist meadows, freshwater marsh, and near creeks. 3,890–10,210 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wet meadow, freshwater marsh, and near creek habitat potentially suitable for this species is present in the project area.
Mingan moonwort *Botrychium minganense*	–	–	2B.2	Meadows, open forest along streams or around seeps. 3,900–10,810 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Meadows, streams, and seeps in forest habitat potentially suitable for this species is present in the project area.
Western goblin *Botrychium montanum*	–	–	2B.1	Lower and upper montane coniferous forest, shady conifer woodland, especially under *Calocedrus* along streams. 4,690–7,970 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Streamside coniferous forest habitat potentially suitable for this species is present in the project area.
Northwestern moonwort *Botrychium pinnatum*	–	–	2B.3	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest. Creekbanks. Moist field, shrubby slopes. 5,400–6,710 feet in elevation. Blooms July–October. Geophyte.	*May occur*. Creekbank and meadow 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
Rattlesnake fern *Botrypus virginianus*	–	–	2B.2	Bogs and fens, lower montane coniferous forest, meadows and seeps, riparian forest. Moist shaded valleys along streams. 2,340–4,450 feet in elevation. Blooms June–September. Perennial.	*May occur*. Streamside habitat potentially suitable for this species is present in the project area. This species has a documented occurrence less than one mile south of the project area (CCH 2022).
Wilkin's harebell *Campanula wilkinsiana*	–	–	1B.2	Often on streambanks in meadows. Wet meadows. 4,170–8,530 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Streambank in meadow habitat potentially suitable for this species is present in the project area.
Green yellow sedge *Carex viridula* ssp. *viridula*	–	–	2B.3	Sphagnum bogs, wet meadows, dune swales, lakeshores, serpentine fens. Mesic sites. 0–5,600 feet in elevation. Blooms July–September. Perennial.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Shasta chaenactis *Chaenactis suffrutescens*	–	–	1B.3	Sandy or serpentine soils. 2,460–9,190 feet in elevation. Blooms May–September. Perennial.	***Known to occur***. Sandy and serpentine soils potentially suitable for this species are present in the project area. This species has a documented occurrence from 2012 in the southwestern piece of the project area, located at the headwaters of the Sacramento River at Lake Siskiyou (CNDDB 2022).
Pallid bird's-beak *Cordylanthus tenuis* ssp. *pallescens*	–	–	1B.2	Gravelly openings in shrub patches next to coniferous forest; on volcanic alluvium. 3,510–5,300 feet in elevation. Blooms July–September. Annual.	***Known to occur***. Gravelly volcanic alluvium soils potentially suitable for this species are present in the project area. This species has a documented occurrence from 1995 in the midsection of the project area, located along Old Stage Rd (CNDDB 2022).
Jepson's dodder *Cuscuta jepsonii*	–	–	1B.2	Upper montane coniferous forest, lower montane coniferous forest, broadleaved upland forest. Sometimes found on streamsides. On *Ceanothus diversifolius*, *Ceanothus prostratus*. 400–9,010 feet in elevation. Blooms July–September. Annual.	*May occur*. Conifer and broadleaved forest that includes some streambank habitat potentially suitable for this species is present in the project area.
Mt. Eddy draba *Draba carnosula*	–	–	1B.3	Subalpine and upper montane coniferous forest. On talus or small boulder-fields; known from both serpentine and granite. 6,340–9,850 feet in elevation. Blooms June–August. Perennial.	*May occur*. Serpentine and granite soils in coniferous forest habitat potentially suitable for this species is present in the project area.
Yellow willowherb *Epilobium luteum*	–	–	2B.3	Along streams and in seeps. Montane meadows. 5,180–7,220 feet in elevation. Blooms July–September. Perennial.	*May occur*. Streamside, seep, and montane meadow 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
Oregon fireweed *Epilobium oreganum*	–	–	1B.2	Bogs and fens, meadows and seeps, lower montane coniferous forest, upper montane coniferous forest. In and near springs and bogs, streambanks; at least sometimes on serpentine. 1,640–7,350 feet in elevation. Blooms June–September. Perennial.	***Known to occur***. Wetland, meadow, and streambank habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1914 in the northern section of the project area, east of Mills Meadow and adjacent of the railroad (CNDDB 2022).
Siskiyou fireweed *Epilobium siskiyouense*	–	–	1B.3	On slopes in gravelly, serpentine soils. Moist ledges. 5,490–8,010 feet in elevation. Blooms July–September. Perennial.	*May occur*. Gravelly serpentine soil habitat potentially suitable for this species is present in the project area.
Waldo daisy *Erigeron bloomeri* var. *nudatus*	–	–	2B.3	In open areas on dry rocky outcrops on serpentine. 2,390–5,710 feet in elevation. Blooms May–July. Perennial.	*May occur*. Open areas on dry rocky outcrops on serpentine soil habitat potentially suitable for this species is present in the project area.
Snow fleabane daisy *Erigeron nivalis*	–	–	2B.3	Volcanic rocks, meadows. 5,690–9,520 feet in elevation. Blooms July–August. Perennial.	*May occur*. Volcanic rocks in meadow habitat potentially suitable for this species is present in the project area.
Trinity buckwheat *Eriogonum alpinum*	–	SE	1B.2	Rocky, serpentine. 6,530–8,610 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Rocky serpentine soil habitat potentially suitable for this species is present in the project area.
Pyrola-leaved buckwheat *Eriogonum pyrolifolium* var. *pyrolifolium*	–	–	2B.3	Sandy or gravelly sites; on pumice. 5,490–10,500 feet in elevation. Blooms June–September. Perennial.	*May occur*. Sandy and gravelly pumice habitat potentially suitable for this species is present in the project area.
Shasta limestone monkeyflower *Erythranthe taylorii*	–	–	1B.1	Openings, carbonate crevices and rocky outcrops. 1,060–3,410 feet in elevation. Blooms March–June. Annual.	*May occur*. Limestone outcrop and cliff habitat potentially suitable for this species is present in the project area.
Pink-margined monkeyflower *Erythranthe trinitiensis*	–	–	1B.3	Meadows and seeps, lower and upper coniferous forest. Moist, generally clay soils in full sun. Strict serpentine endemic. Often on roadsides. 4,490–6,400 feet in elevation. Blooms May–July. Annual.	*May occur*. Moist serpentine soil habitat potentially suitable for this species is present in the project area.
Klamath fawn lily *Erythronium klamathense*	–	–	2B.2	Meadows and seeps in upper montane coniferous forests. 3,940–6,070 feet in elevation. Blooms April–July. Geophyte.	*May occur*. Meadow and seep habitat potentially suitable for this species is present in the project area.
Coast fawn lily *Erythronium revolutum*	–	–	2B.2	Streambanks, wet places in woodland. 190–4,610 feet in elevation. Blooms March–July. Geophyte.	*May occur*. Wetland and streambank habitat potentially suitable for this species is present in the project area.
Subalpine aster *Eurybia merita*	–	–	2B.3	Upper montane coniferous forest. 4,260–6,570 feet in elevation. Blooms June–August. Perennial.	***Known to occur***. Coniferous forest habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence in the upper section of the project area from 1936 (CNDDB 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Modoc green-gentian *Frasera albicaulis* var. *modocensis*	–	–	2B.3	Great Basin scrub, upper montane coniferous forest. Openings. 2,950–5,740 feet in elevation. Blooms May–July. Perennial.	*May occur*. Openings in coniferous forest habitat potentially suitable for this species is present in the project area.
Gentner's fritillary *Fritillaria gentneri*	FE	–	1B.1	Open sites at edge of woodland or chaparral; sometimes on serpentine. 3,300–3,680 feet in elevation. Blooms April–May. Geophyte.	*May occur*. Woodland and chaparral habitat potentially suitable for this species is present in the project area.
Scott Mountain bedstraw *Galium serpenticum* ssp. *scotticum*	–	–	1B.2	Generally, on north-facing slopes on serpentine in mixed conifer forest. 3,280–6,810 feet in elevation. Blooms April–September. Perennial.	*May occur*. Coniferous forest with serpentine soil habitat potentially suitable for this species is present in the project area.
Aleppo avens *Geum aleppicum*	–	–	2B.2	Great Basin scrub, lower montane coniferous forest. Meadows and seeps. 1,470–4,920 feet in elevation. Blooms June–August. Perennial.	*Known to occur*. Meadows and seeps in coniferous forest habitat potentially suitable for this species is present in the project area. This species has a documented occurrence in the lower section of the project area from 2002 (CNDDB 2022).
Little hulsea *Hulsea nana*	–	–	2B.3	Rocky or gravelly sites; on volcanic substrates. 5,640–11,010 feet in elevation. Blooms June–August. Perennial.	*May occur*. Rocky or gravelly volcanic substrate habitat potentially suitable for this species is present in the project area.
Alkali hymenoxys *Hymenoxys lemmonii*	–	–	2B.2	Lower montane coniferous forest, Great Basin scrub. Meadows and seeps, streambanks. Subalkaline soils. 2,640–9,010 feet in elevation. Blooms June–August. Perennial.	*May occur*. Meadows, seeps, and streambanks in conifer forest with subalkaline soil habitat potentially suitable for this species is present in the project area.
Pickering's ivesia *Ivesia pickeringii*	–	–	1B.2	Wet, rocky meadows, generally on serpentine clay. 2,790–5,010 feet in elevation. Blooms May–September. Perennial.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Dudley's rush *Juncus dudleyi*	–	–	2B.3	Wet areas in forest. 1,490–6,560 feet in elevation. Blooms June– September. Perennial.	*May occur*. Wetland in forest habitat potentially suitable for this species is present in the project area.
Peck's lomatium *Lomatium peckianum*	–	–	2B.2	Rocky slopes, flats, and sometimes grassy openings, in yellow pine-black oak woodland, on volcanic soils. 2,240–3,870 feet in elevation. Blooms April–June. Perennial.	*May occur*. Yellow pine-black oak woodland with volcanic soil habitat potentially suitable for this species is present in the project area.
Broad-nerved hump moss *Meesia uliginosa*	–	–	2B.2	Often found on the edge of fens or raised above the fen on hummocks/shrub bases. Bogs, meadows, and seeps in subalpine coniferous forest or upper montane coniferous forest. 3,590–9,210 feet in elevation. Blooms July–October. Perennial.	*May occur*. Wetland and meadow habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Woodnymph *Moneses uniflora*	–	–	2B.2	Broadleaf upland forest, north coast coniferous forest. Moist, mossy conifer forests. 330–3,6010 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Moist forest habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Northern adder's-tongue *Ophioglossum pusillum*	–	–	2B.2	Marsh edges, low pastures, grassy roadside ditches, meadows and seeps. Also described as in "open swamp." 3,560–6,350 feet in elevation. Blooms July. Geophyte.	*May occur*. Wetland, pasture, meadow, and roadside habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Brittle prickly-pear *Opuntia fragilis*	–	–	2B.1	Pinyon and juniper woodland. Volcanic soils. 2,690–2,890 feet in elevation. Blooms April–July. Perennial.	*May occur*. Juniper woodland with volcanic soil habitat potentially suitable for this species is present in the project area.
Rosy orthocarpus *Orthocarpus bracteosus*	–	–	2B.1	Wetland and moist meadows and seeps. 3,280–6,570 feet in elevation. Blooms June–September. Annual.	*May occur*. Wetland and meadow habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Shasta orthocarpus *Orthocarpus pachystachyus*	–	–	1B.1	Great Basin scrub, meadows and seeps, valley and foothill grassland. Openings in sagebrush scrub. 2,740–5,010 feet in elevation. Blooms May–June. Annual.	*May occur*. Sagebrush scrub and meadow habitat potentially suitable for this species is present in the project area.
Cascade grass-of-Parnassus *Parnassia cirrata* var. *intermedia*	–	–	2B.2	Meadows and seeps, bogs and fens. Rocky serpentine soil. 2,540–6,560 feet in elevation. Blooms August–September. Perennial.	*May occur*. Wetland with and serpentine soil habitat potentially suitable for this species is present in the project area.
Cooke's phacelia *Phacelia cookei*	–	–	1B.1	Great Basin scrub and lower montane coniferous forest. Sandy volcanic soil. 3,590–5,580 feet in elevation. Blooms May–August. Annual.	*May occur*. Conifer forest with sandy volcanic soil habitat potentially suitable for this species is present in the project area.
Scott Valley phacelia *Phacelia greenei*	–	–	1B.2	Closed-cone coniferous forest, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Serpentinite. 2,790–7,810 feet in elevation. Blooms April–July. Annual.	*May occur*. Conifer forest with serpentine soil habitat potentially suitable for this species is present in the project area.
Siskiyou phacelia *Phacelia leonis*	–	–	1B.3	Meadows and seeps, sandy flats, slopes, conifer forest, sometimes on serpentine. 3,930–6,560 feet in elevation. Blooms June–August. Annual.	*May occur*. Wetland and meadow habitat potentially suitable for this species is present in the project area
Horned butterwort *Pinguicula macroceras*	–	–	2B.2	Meadow edges, seepage areas. Serpentine soil. 60–6,010 feet in elevation. Blooms April–July. Perennial.	*May occur*. Wetland and meadow habitat with serpentines potentially suitable for this species is present in the project area.
White-stemmed pondweed *Potamogeton praelongus*	–	–	2B.3	Deep water, lakes. 5,900–9,850 feet in elevation. Blooms July–August. Geophyte.	*May occur*. Lake and pond habitat potentially suitable for this species is present in the project area.
Crested potentilla *Potentilla cristae*	–	–	1B.3	Seasonally wet swales and seeps; gravelly or rocky sites; often on serpentine. 5,900–9,190 feet in elevation. Blooms June–September. Perennial.	*May occur*. Rocky wetland 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
Showy raillardella *Raillardella pringlei*	–	–	1B.2	Streambanks, wet meadows and bogs in areas of serpentine-derived soils. 3,930–7,520 feet in elevation. Blooms July–October. Geophyte.	*May occur*. Streambank and wetland with serpentine soil habitat potentially suitable for this species is present in the project area.
Gasquet rose *Rosa gymnocarpa* var. *serpentina*	–	–	1B.3	Chaparral, cismontane woodland. Serpentinite. Often on roadsides, sometime on ridges, streambanks, and in openings. 1,190–7,320 feet in elevation. Blooms April–July. Geophyte.	*Known to occur*. Chaparral and woodland with serpentine soil habitat potentially suitable for this species is present in the project area. This species has a documented occurrence in the midwestern section of the project area, directly north of Pine Grove Drive, from 1912 (CCH 2022).
Scott Mountain sandwort *Sabulina stolonifera* (synonym: *Minuartia stolonifera*)	–	–	1B.3	Lower montane coniferous forest. Serpentine soils, Jeffrey pine forest. 4,100–4,600 feet in elevation. Blooms May–August. Perennial.	*May occur*. Conifer forest with serpentine soils habitat potentially suitable for this species is present in the project area.
Water bulrush *Schoenoplectus subterminalis*	–	–	2B.3	Bogs and fens. Marshes and swamps. Montane lake margins, in shallow water. Streams low in nutrients. 2,460–7,390 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Lake and wetland habitat potentially suitable for this species is present in the project area.
Marsh skullcap *Scutellaria galericulata*	–	–	2B.2	Wet sites, meadows, streambanks, conifer forest. Swamps and wet places. 0–6,400 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wetland and streambank habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Cascade stonecrop *Sedum divergens*	–	–	2B.3	Sunny, dry gravelly flats, rocky slopes, ledges. 5,000–7,670 feet in elevation. Blooms July–September. Perennial.	*May occur*. Rocky outcrop and gravelly flat habitat potentially suitable for this species is present in the project area.
Canadian buffalo-berry *Shepherdia canadensis*	–	–	2B.1	Rocky streamsides on serpentine. 4,240–5,680 feet in elevation. Blooms April–July. Perennial.	*May occur*. Rocky streamside serpentine habitat potentially suitable for this species is present in the project area.
Hairy marsh hedge-nettle *Stachys pilosa*	–	–	2B.3	Great Basin scrub, meadows and seeps. Mesic sites. 2,570–6,710 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Cylindrical trichodon *Trichodon cylindricus*	–	–	2B.2	Broadleafed upland forest, meadows and seeps, upper montane coniferous forest. Moss growing in openings on sandy or clay soils on roadsides, stream banks, trails, or in fields. 160–4,920 feet in elevation. Perennial.	*May occur*. Stream, roadside, and field habitat potentially suitable for this species is present in the project area.
Siskiyou clover *Trifolium siskiyouense*	–	–	1B.1	Meadows and seeps. Mesic sites. 2,890–4,930 feet in elevation. Blooms June–July. Perennial.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Henderson's triteleia *Triteleia hendersonii*	–	–	2B.2	Open slopes and road banks. 2,500–4,000 feet in elevation. Blooms May–July. Geophyte.	*May occur*. Open slope and road bank 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
Little-leaved huckleberry *Vaccinium scoparium*	–	–	2B.2	Rocky subalpine woods. Sometimes serpentine. 4,000–7,220 feet in elevation. Blooms June–August. Perennial.	*May occur*. Rocky woodland habitat potentially suitable for this species is present in the project area.
Special-Status Wildlife					
Cascades frog *Rana cascadae*	–	SC SSC	–	Montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows; open coniferous forests. Standing water required for reproduction. Hibernates in mud on the bottom of lakes and ponds during the winter. Typically found within a few meters of water.	*Known to occur*. There are several documented occurrences of Cascades frog in the project area, including historic (i.e., 1930's to 1950's) and recent (i.e., 2011; CNDDB 2022) occurrences. Habitat potentially suitable for Cascades frog is present in the project area within lakes, streams, ponds, and meadows.
Foothill yellow-legged frog *Rana boylii*	–	SSC	–	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.	*Known to occur*. There are several documented occurrences of foothill yellow-legged frog near Lake Siskiyou and along the Sacramento River (CNDDB 2022). Habitat potentially suitable for this species is present within streams in the project area.
Pacific tailed frog *Ascaphus truei*	–	SSC	–	Occurs in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats. Restricted to perennial montane streams.	*May occur*. The project area contains perennial stream habitat that may provide habitat suitable for Pacific tailed frog.
Southern long-toed salamander *Ambystoma macrodactylum sigillatum*	–	SSC	–	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks, usually within approximately 330 feet (100 meters) of aquatic habitat.	*May occur*. Habitat potentially suitable for southern long-toed salamander is present in the project area within meadows, lakes, and other wet areas (e.g., some creeks, wetlands).
Western pond turtle *Emys marmorata*	–	SSC	–	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 approximately 1,600 feet (0.5 km) from water for egg-laying.	*Known to occur*. Several western pond turtles were observed within a pond at the Larry Wehmeyer Environmental Education Area on North Shore Road during the reconnaissance-level survey for biological resources on March 22, 2022. Habitat potentially suitable for this species is present in the project area in ponds, lakes, and streams.
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 or a depression or ledge in an open site.	*May occur*. Habitat potentially suitable for American peregrine falcon (e.g., cliffs, human-made structures) are present within the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	–	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	*May occur*. There is a documented bald eagle nesting occurrence approximately 2 miles west of Lake Siskiyou (CNDDB 2022). Nesting habitat potentially suitable for this species is present in conifer forest habitat near Lake Siskiyou.
Bank swallow *Riparia riparia*	–	ST	–	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	*Known to occur*. Nesting bank swallows have been documented adjacent to Lake Siskiyou (CNDDB 2022). Habitat potentially suitable for bank swallows in the project area is likely limited to banks along Lake Siskiyou.
Greater sandhill crane *Antigone canadensis tabida*	–	ST FP	–	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4-mile of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	*Known to occur*. Several sandhill cranes were observed within meadow habitat during the reconnaissance-level survey for biological resources on March 21, 22, and 23, 2022. Habitat potentially suitable for this species is present in meadows throughout the project area.
Northern goshawk *Accipiter gentilis*	–	SSC	–	Typically nests in mature forest habitats with relatively high canopy closure, high abundance of large live and dead trees, low density of small trees, and low shrub/sapling and ground cover. Often nests on relatively gentle to moderate north slopes or flats, and near water. Red fir, lodgepole pine, Jeffrey pine, and aspen are typical nest tree species. Uses old nests and maintains alternate sites.	*May occur*. There are several documented occurrences of northern goshawk east of the project area near Mount Shasta (CNDDB 2022). While there are no documented northern goshawk occurrences in the project area, habitat potentially suitable for northern goshawk is present in conifer forest habitat in the project area.
Northern spotted owl *Strix occidentalis caurina*	FT	ST SSC	–	High, multistory canopy dominated by large trees, many trees with cavities or broken tops, woody debris and space under canopy. Occasionally in younger forests with patches of large trees.	*May occur*. There are several northern spotted owl activity centers and observations within Shasta-Trinity National Forest west of the project area; the nearest are within approximately 0.6 mile of the project area (CNDDB 2022). Some forest habitats within the project area may provide nesting habitat suitable for northern spotted owls.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Swainson's hawk *Buteo swainsoni*	–	ST	–	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	*May occur*. The nearest documented occurrence of a nesting Swainson's hawk is approximately 16 miles north of the project area adjacent to agricultural land uses (CNDDB 2022). While less suitable than agricultural areas north of the project area, nesting habitat potentially suitable for Swainson's hawk is present in the project area, especially within riparian areas and in wooded areas adjacent to meadows and pastures.
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*. There are several documented detections of willow flycatchers in the project area (eBird 2022).
Yellow rail *Coturnicops noveboracensis*	–	SSC	–	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	*Known to occur*. Yellow rail has been documented in the project area within wet meadow habitat near Wyehka Way (CNDDB 2022). Wet meadow and marsh habitat in the project area may provide habitat suitable for this species.
Franklin's bumble bee *Bombus franklini*	FE	–	–	Species has precipitously declined since 1998; found only in Southern Oregon and Northern California between the coast and Sierra-Cascade ranges.	*May occur*. The project area is within the current range of Franklin's bumble bee. The project area contains floral resources that may provide foraging opportunities for Franklin's bumble bees, as well as overwintering and breeding habitat.
Monarch *Danaus plexippus*	FC	–	–	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. Along migration routes and within summer ranges, monarch butterflies require two suites of plants: (1) host plants for monarch caterpillars, which are primarily milkweeds (*Asclepias* spp.) within the family Apocynaceae upon which adult monarchs lay eggs; and (2) nectar-producing flowering plants of many other species that provide food for adult butterflies. Having both host and nectar plants available from early spring to late fall and along migration corridors is critical to the survival of migrating pollinators.	*May occur*. The project area is outside of the overwintering range of monarch butterfly. However, the project area contains grassland and open woodland habitats with floral resources and likely contains milkweed plants; thus, monarch may forage or breed on the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Suckley's cuckoo bumble bee *Bombus suckleyi*	–	–	–	Pacific coast from Alaska to far northern California, east to Nebraska. An inquiline (i.e., an animal that lives commensally in the nest, burrow, or dwelling place of an animal of another species) in the colonies of other bumble bees, especially western bumble bee. Adult food plant genera include *Aster*, *Centaurea*, *Cirsium*, *Trifolium*, *Chrysothamnus*, *Helichrysum*.	*May occur*. The project area contains floral resources that may provide foraging opportunities for Suckley's cuckoo bumble bees, as well as overwintering and breeding habitat.
Western bumble bee *Bombus occidentalis*	–	–	–	Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	*Known to occur*. There are two historic (1938, 1960) occurrences of western bumble bee in the project area (CNDDB 2022). The project area contains floral resources that may provide foraging opportunities for western bumble bees, as well as overwintering and breeding habitat.
American badger *Taxidea taxus*	–	SSC	–	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	*May occur*. Habitat potentially suitable for American badger is present throughout the project area within annual grassland, perennial grassland, chaparral, and open woodland and forest habitats.
Fisher - West Coast DPS *Pekania pennanti*	–	SSC	–	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	*Known to occur*. The project area overlaps the easternmost extent of the range of the fisher West Coast DPS. There are several contemporary (i.e., after 2000) occurrences of fisher within the project area (CNDDB 2022).
Gray wolf *Canis lupus*	FE	SE	–	Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact.	*May occur*. Contemporary sightings of gray wolves in California have included a pack in Siskiyou County (i.e., the Shasta Pack) and more recently (i.e., 2021), a breeding pair of wolves near Mount Shasta (i.e., the Whaleback Pack; CDFW 2022a). Gray wolves have very large home ranges, which may include all or a portion of the project area.
Oregon snowshoe hare *Lepus americanus klamathensis*	–	SSC	–	Primarily found in montane riparian habitats with thickets of alders and willows, and in stands of young conifers interspersed with chaparral. Prefers edges, heterogeneous habitats, and areas with dense understory, particularly in riparian habitats. Also found in areas with young firs with branches drooping to ground, and in patches of ceanothus and manzanita within, or bordering, fir or pine forests.	*May occur*. Habitat potentially suitable for Oregon snowshoe hare is present throughout the project area within riparian areas, stands of young conifers, and chaparral habitats.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
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.	*May occur*. Roost habitat (i.e., trees, crevices, buildings) potentially suitable for pallid bat is present throughout the project area.
Ringtail *Bassariscus astutus*	–	FP	–	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	*May occur*. Habitat potentially suitable for ringtail is present throughout the project area within forests, shrubs, and riparian areas.
Sierra Nevada mountain beaver *Aplodontia rufa californica*	–	SSC	–	Dense growth of small deciduous trees and shrubs, wet soil, and abundance of forbs in the Sierra Nevada and east slope. Needs dense understory for food and cover. Burrows into soft soil. Needs abundant supply of water.	*May occur*. Habitat potentially suitable for Sierra Nevada mountain beaver may be present adjacent to perennial streams that contain dense riparian vegetation and soft soils.
Spotted bat *Euderma maculatum*	–	SSC	–	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	*Known to occur*. Spotted bat has been detected in the project area (CNDDB 2022), and roost habitat potentially suitable for the species (e.g., rock crevices, caves) is present throughout the project area.
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.	*May occur*. Roost habitat (i.e., caves, buildings) potentially suitable for Townsend's big-eared bat is present throughout the project area.
Western mastiff bat *Eumops perotis californicus*	–	SSC	–	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	*May occur*. Roost habitat (i.e., crevices, cliffs, trees, buildings) potentially suitable for western mastiff bat is present throughout the project area.
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.	*May occur*. Roost habitat (i.e., foliage within broad-leaf trees) potentially suitable for western red bat is present throughout the project area.

[1] Legal Status Definitions: CESA = California Endangered Species Act; CEQA = California Environmental Quality Act; CRPR = California Rare Plant Rank; ESA = Endangered Species Act

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

Federal: FE = Federally Listed as Endangered (legally protected)
FT = Federally Listed as Threatened (legally protected)
FD = Federally Delisted

Sources: CCH 2022; CDFW 2022a; CNDDB 2022; CNPS 2022; eBird 2022; USFWS 2022.

IMPACT BIO-1

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on the 61 special-status plant species with suitable habitat in the project area. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments, because the same treatment activities would occur. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth, 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.

Of the sixty-one special-status plant species with suitable habitat in the project area, 14 of these special-status plant species – western goblin, rattlesnake fern, Wilkin's harebell, green yellow sedge, Pickering's ivesia, and white-stemmed pondweed – are typically associated with wetlands (e.g., freshwater emergent wetlands, freshwater forested/shrub wetlands, springs, seeps) (Table 4.5-2). There are 23 special-status plant species – vanilla-grass, scalloped moonwort, Jepson's dodder, Oregon fireweed, Klamath fawn lily, Aleppo avens, and cylindrical trichodon – that may be associated with both wetland and upland areas. The remaining 24 special-status plant species –Shasta Chaenactis, Pallid bird's-beak, Mt. Eddy draba, Waldo daisy, and little-leaved huckleberry – are associated with upland habitats that are present in the project area.

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 one 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 manual, mechanical, herbicide, and prescribed burning treatments, which would minimize some adverse effects on these species. SPR HYD-4 requires the retention of at least 75 percent of surface cover and undisturbed area within WLPZs. 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 will not be sufficient in protecting special-status plants within the WLPZ. Furthermore, there may be additional onsite wetland, spring, seep, and mesic habitat suitable for special-status plants outside of a WLPZ as well as ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules). Wetland delineations will be conducted to determine if other wetland, spring, seep, and mesic habitats are located within treatment areas; where aquatic habitats are delineated, buffers of at least 25 feet around them will be established (per Mitigation Measure BIO-4, refer to Impact BIO-4 below). These buffers will generally be no-disturbance buffers; however, within meadow habitats, ignition for broadcast burning using only propane torches may occur, including within wetland buffers (see discussion regarding revisions to Mitigation Measure BIO-4, below).

Although these measures would avoid and minimize some adverse effects on special-status plants typically associated with wetland areas, habitat potentially suitable for the 23 facultative special-status plant species (i.e., associated with both wetland and upland areas) and all habitat potentially suitable for the 24 upland-associated 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 include surveying for special-status plants before implementing treatments in any habitat potentially suitable for special-status plants. If special-status plant species are observed during SPR BIO-7, Mitigation Measure BIO-1a and/or Mitigation Measure BIO-1b would be required, establishing no disturbance buffers around plants listed under California Endangered Species Act (CESA), federal Endangered Species Act (ESA), and other special-status plants, which would include special-status plants in both wetland and upland habitat.

SPR BIO-7 would apply to all treatment activities, including maintenance treatments; it requires protocol-level surveys for special-status plants to be conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018a) before implementing mechanical, manual, prescribed burning, and herbicide treatments in any habitat potentially suitable for special-status plants, which would include upland habitat that could potentially contain facultative 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 the CESA or ESA, 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 potentially suitable habitat for these special-status plants be restricted to the dormant season for these species and to treatments that do not disturb below the soil surface (i.e., manual treatments, herbicide application, and prescribed burning) without prior knowledge of their presence, which may unnecessarily or infeasibly constrain treatment implementation.

Twenty-eight of the 61 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 (e.g., manual treatment, herbicide application, and prescribed burning) during the dormant season (i.e., when the plant has no aboveground 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 (i.e., manual treatments, herbicide application, and prescribed burning) cannot be completed in the dormant season and would be implemented during the growing period of these annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below. The remaining 33 of the 61 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 before implementing treatment activities regardless of the timing of treatments.

Where protocol-level surveys are required (per 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. Per Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet would be established around the area occupied by the species within which prescribed fire, herbicide application, and mechanical and manual treatment, would not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from treatment in the occupied habitat area. In the case of plants listed pursuant to CESA or ESA, 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 will 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.

Seven special-status plant species – Gasquet rose (geophytic shrub), Aleppo avens (perennial herb), subalpine aster (perennial herb), Oregon fireweed (perennial herb), Pallid bird's-beak (annual herb), Shasta Chaenactis (perennial herb) – have been identified previously and known to occur within project area. If surveys pursuant to SPR BIO-7

determine these species are still present, implementation of Mitigation Measure BIO-1b would be required to avoid loss of individual plants. For the perennial species, this would require establishing a no-disturbance buffer around the area occupied by the species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damage to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. For the annual and geophytic species, treatments may be conducted within this buffer outside of the growing season (e.g., after species has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the underground parts of special-status plants or destroy the seedbank.

Fire Effects on Special-Status Plants

Pursuant to Mitigation Measure BIO-1a and Mitigation Measure BIO-1b, impacts on special-status plants must be avoided unless it is determined that the plants would benefit from treatment and that habitat function would improve with implementation of the treatment. Fire effects for special-status plant species (Table 4.5-3) were researched for the project area to determine benefit from prescribed fire treatment. Eight of the special-status plant species that are known to occur or have potential to occur in the project area could potentially benefit from prescribed fire (Table 4.5-3). Klamath manzanita individuals typically die following fire (Edwards et al. 1983) but have seeds that require fire to germinate (Wilken and Burgher 2009; Parker 2015). According to CAL FIRE mapping data, the most recent fire in the project area occurred in 1950 but only burned 154 acres (CAL FIRE 2021). A larger portion of the project area burned in 1939 (CAL FIRE 2021). Due to lack of fire in the project area, it is likely that individual Klamath manzanita shrubs that may be growing in the project area are senescent and new seed germination has likely not occurred in decades. Prescribed fire could benefit this species by stimulating seed germination to help sustain populations in the future and increase heterogeneity. Shasta limestone monkeyflower has been observed to benefit from wildfire. During post-fire monitoring following the 2018 Hirz fire, successful germination and flowering was documented in this species (Colwell et al. 2021). The Hirz fire burned north of Lake Shasta and south of the project area. Although, the Hirz fire burned in August when this species had finished fruiting and was dormant as seeds (Kierstead 2020 pers. comm.), prescribed fire during the growing season (January–June) could potentially kill this season's plants, eliminating the year's seed crop and reducing reproductive success for potentially several years. Therefore, prescribed fire will not be conducted during the growing season in habitat where Shasta limestone monkeyflower is identified. Prescribed fire conducted during the dormant season for Shasta limestone monkeyflower would potentially increase germination and flowering and therefore benefit populations of this species present in the project area.

Table 4.5-3 Fire Effects on Special-Status Plants

Species	Lifeform	Fire Effects
Klamath manzanita *Arctostaphylos klamathensis*	Perennial	Seed germination occurs due to soil heating from fire (Wilken and Burgher 2009; Parker 2015); plant likely killed by fire (Edwards et al. 1983).
Shasta limestone monkeyflower *Erythranthe taylorii*	Annual	Species has been observed germinating and flowering well following the August 2018 Hirz fire (Colwell et al. 2021). Prescribed fire occurring during the growing season (January–June) could potentially kill this season's plants and therefore would not be conducted during this timeframe.
Scott Mountain bedstraw *Galium serpenticum* ssp. *scotticum*	Perennial	Mature plants with woody root crown will resprout due to fire (Dempster and Ehrendorfer 1965; Kierstead pers. comm., 2021). Loss of tree canopy cover can be detrimental to this species.
Dudley's rush *Juncus dudleyi*	Perennial	Rush species have below-ground rhizomes and roots that are well-developed and able to survive low-intensity fire (Dean 2021b). In some cases, rush inflorescences may be increased as a result of fire (Clark and Wilson 2001).
Brittle prickly-pear *Opuntia fragilis*	Perennial	Fire tolerant (Thomas 1997). Post-fire sprouting would likely occur from the root crown, following aboveground mortality (Taylor 2005). High severity fire usually kills entire plant (Benson and Walkington 1965; Thomas 1997).

Species	Lifeform	Fire Effects
Gasquet rose *Rosa gymnocarpa* var. *serpentina*	Geophyte	Well adapted to fires with low to medium severity (Reed 1993). Post-fire top-killed plants will sprout vigorously from the rhizomes or root crown (Mueggler 1965; Hooker and Tisdale 1974; Morgan 1984; Hungerford 1986; Stickney 1986). Root crown damage can occur due to severe fires which potentially decreases ability for regrowth (Haeussler et al. 1990).
Canadian buffalo-berry *Shepherdia canadensis*	Perennial	Moderately resistant to fire (normally fire resistant, but can be eliminated by fire) (McLean 1968; Noste and Bushey 1987). Post-fire sprouting occurs from surviving root crown (Noste and Bushey 1987).
Little-leaved huckleberry *Vaccinium scoparium*	Perennial	Moderately resistant to fire (Volland and Dell 1981; Fischer and Clayton 1983); sprouting from rhizomes post-fire (Johnson 2001). Species can be eliminated from site if fire is severe enough (Smith and Fischer 1997). Rhizomes are very shallow (Forecella and Weaver 1977; McLean 1968) making this species susceptible to damage or being killed by duff reducing fires (Laursen 1984; Hungerford 1986).

The remaining six plants – Dudley's rush, Scott Mountain bedstraw, brittle prickly-pear, Gasquet rose, Canadian buffalo-berry, and little-leaved huckleberry – have a post-fire resprout response either from the root crown or rhizomes. Brittle prickly-pear, Gasquet rose, and little-leaved huckleberry plant individuals will most likely be killed or have their root crown damaged by high-severity fire (Benson and Walkington 1965; Haeussler et al. 1990; Smith and Fischer 1997; Thomas 1997). Additionally, Canadian buffalo-berry is moderately fire resistant but can be eliminated by fire (McLean 1968; Noste and Bushey 1987). Although there is no record of the effect of high-severity fire on Scott Mountain bedstraw, perhaps due to very limited research, it is likely that if a fire burned hot enough this species' below ground parts would be killed and therefore the re-sprouting ability of this plant would potentially be diminished or eliminated (Dean 2021a). Dudley's rush is able to survive low-severity fire and could potentially have an increase of inflorescences post-fire (Clark and Wilson 2001; Dean 2021b). As previously stated, there has not been a fire in the project area since 1950 (CAL FIRE 2021). As a result there is most likely a heavy buildup of duff and leaf litter in the project area which reduces seed germination and seedling survival. The six special-status plants that have a post-fire resprouting response would likely benefit from low to moderate severity prescribed burning by clearing out some of this build-up of duff and leaf litter. A cleared habitat would benefit rhizome resprouters by increasing potential success of resprouts and burl resprouters by increasing potential germination success after seed dispersal. Therefore, if after implementation of SPR BIO-7 any of these seven species are detected and no other special-status plant species are detected, low- to moderate-intensity prescribed fire could be implemented without establishing buffers. This is with the exception of Shasta limestone monkeyflower where prescribed fire would be limited by season and would not be permitted to occur between January through June, which may not be feasible due to multiple factors including possible extreme fire danger.

Conclusion

The potential for treatment activities to result in adverse effects on special-status plants was examined in the PEIR. This impact on special-status plants is within the scope of the PEIR, because, 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 PEIR. 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 PEIR. 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 above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR HYD-4 during broadcast burning activities to allow for igniting within potential WLPZs in meadow habitat using only propane torches. This constitutes a revision to the program description analyzed in the PEIR. Propane torches would avoid deposition of fuel residue to soil or water that is typical of other accelerants where

fuel residue may cause an environmental impact (NWCG 2019). Uncombusted liquid propane quickly vaporizes rather than remaining in the soil or on water; thus, propane torches would not result in introduction of harmful chemicals to water, reduction in water quality, or adverse effects on aquatic wildlife species. Because the meadows in the project area are relatively flat, ignition within WLPZs would not result in significant sedimentation from exposed soil in burned areas that could adversely affect water quality.

Additionally, Shasta Valley RCD proposes to revise requirements under Mitigation Measure BIO-4, which prohibits fire ignition and use of accelerants within wetland buffers, which would be established after delineation of wetlands. Wetland buffers would be at least 25 feet but may be larger if deemed necessary by a qualified RPF or biologist. While Mitigation Measure BIO-4 does not prohibit all prescribed burning within the wetland buffer, fire intensity would be greatest at the initial ignition point, potentially resulting in erosion or sedimentation, and typical accelerants (e.g., potassium perchlorate, gasoline, diesel, mixed gas) and post-fire residue associated with these accelerants can adversely affect water quality if introduced to wetlands, streams, or lakes, as described in the CalVTP PEIR.

As described above, Shasta Valley RCD plans to conduct broadcast burning activities within meadows in the project area. Meadows in the project area vary in character, with most mapped as containing fresh emergent wetland habitat and some being bisected by Class III or Class IV streams. Wetlands within meadows in the project area have not been delineated. As a result, it is possible that some meadows that would be subject to broadcast burning contain wetland habitat that would have associated wetland buffers pursuant to Mitigation Measure BIO-4, within which ignition and the use of accelerants would be prohibited.

Due to the size and relatively flat topography of the meadows in the project area, it is unlikely that low intensity backing fires ignited consistent with the PEIR limitations would adequately burn the meadow because the fire may not carry due to prevailing winds and slope. To meet treatment objectives, Shasta Valley RCD would directly ignite vegetation within meadows using only propane torches to better control fire behavior, which would require a revision of the restrictions in Mitigation Measure BIO-4. Without this revision to Mitigation Measure BIO-4, the objective to conduct prescribed burning in meadows could not be achieved. See Section 2.1.1, "Treatment Types" for more information regarding the importance of conducting broadcast burning in meadow habitats to achieve the restoration goals of the project.

Proposed revisions to SPR HYD-4 and Mitigation Measure BIO-4 could result in impacts on special-status plants potentially present in meadow habitats; however, the project proponent would still be required to implement SPRs and mitigation measures to reduce impacts on these resources within meadow habitats. Several special-status plant species have potential to occur within meadow habitats on the project site (Table 4.5-2). Pursuant to SPR BIO-1 and SPR BIO-7, impacts on these species would be minimized through avoidance of habitats (e.g., wetlands, streams) and through identification of occupied habitat through focused surveys. Pursuant to Mitigation Measure BIO-1a, Mitigation Measure BIO-1b, and Mitigation Measure BIO-4, broadcast burning (including ignition and backing fires) would not occur within wetland buffers or WLPZs if special-status plant species are present within these areas as determined through implementation of surveys required under SPR BIO-7, unless it is determined that the special-status plant species would benefit from prescribed fire (See "Fire Effects on Special-Status Plants," above). Therefore, proposed revisions in SPR HYD-4 and Mitigation Measure BIO-4, specifically for broadcast burning in meadows, would not result in a substantially more severe significant effect on special-status plants than what was covered in the PEIR. The text revisions to SPR HYD-4 and Mitigation Measure BIO-4 are shown in underline and strikethrough in the MMRP (Attachment A).

Biological resource SPRs that apply to project impacts under Impact BIO-1 are SPR AQ-3, SPR AQ-4, SPR BIO-1, SPR BIO-2, SPR BIO-6, SPR BIO-7, SPR BIO-9, SPR GEO-1, SPR GEO-3, SPR GEO-4, SPR GEO-5, SPR GEO-7, SPR HYD-4, and SPR HYD-5. Biological resource mitigation measures that apply to project impacts under Impact BIO-1 are Mitigation Measures BIO-1a and BIO-1b. As explained above, impacts on special-status plants resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute a substantially more severe significant impact than what was covered in the PEIR.

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 generally be the same as those resulting from initial vegetation treatments because the same treatment activities would occur.

Special-Status Frogs

Three special-status frog species have potential to occur in the project area: Cascades frog, foothill yellow-legged frog, and Pacific tailed frog (Table 4.5-2). Aquatic habitat potentially suitable for these species is present within Class I and Class II streams, marshes, ponds, and wet meadows in the project area. Cascades frog and Pacific tailed frog are associated closely with water and are rarely found more than a few meters from aquatic habitat. Foothill yellow-legged frog is known to occur within upland habitat up to approximately 200 feet away, but typically no more than 50 to 70 feet away, from aquatic habitat (CDFW 2018b).

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented. However, these measures may not result in full avoidance of special-status frogs if individuals are present within ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules) and adjacent to a treatment area, or if manual activities implemented within the WLPZ resulted in injury or mortality of special-status frogs. The potential for treatment activities, including maintenance treatments, to result in adverse effects on special-status frogs was examined in the PEIR.

Per SPR BIO-1, to fully avoid habitat potentially suitable for foothill yellow-legged frog, a 200-foot no-disturbance buffer would be implemented before commencement of treatment activities by flagging along perennial streams (Class I and Class II) adjacent to a treatment area. This 200-foot buffer would also provide sufficient protection for Cascades frog and Pacific tailed frogs within Class I and Class II streams. To fully avoid additional aquatic habitat potentially suitable for Cascades frog and Pacific tailed frog, a 20-foot no-disturbance buffer would be implemented before commencement of treatment activities by flagging around ponds and wet meadows. If the 200-foot and 20- foot no-disturbance buffers are determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and focused visual encounter surveys for foothill yellow-legged frog, Cascades frog, and Pacific tailed frog would be conducted by a qualified RPF or biologist within suitable habitat areas before treatment activities. If foothill yellow-legged frogs, Cascades frogs, or Pacific tailed frogs are not detected within the treatment area during focused surveys, then no mitigation for these species would be required. If foothill yellow-legged frogs, Cascades frogs, or Pacific tailed frogs are identified during focused surveys, then Mitigation Measure BIO-2a (for Cascades frog) and Mitigation Measure BIO-2b (for foothill yellow-legged frog and Pacific tailed frog) for these species would be implemented.

Under Mitigation Measure BIO-2a and Mitigation Measure BIO-2b, areas would be flagged within which no treatment activities would occur, biological monitoring would be implemented, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury to or mortality of these species would be implemented. The project proponent may consult with CDFW for technical information regarding appropriate measures to avoid and minimize impacts. If full implementation of Mitigation Measure BIO-2a and Mitigation Measure BIO-2b are not feasible, impacts would remain significant under CEQA, and the project proponent would implement Mitigation Measure BIO-2c, which may entail acquiring an incidental take permit under CESA (for Cascades frog).

Habitat function for foothill yellow-legged frog, Cascades frog, and Pacific tailed frog would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and pursuant to SPR HYD-4 treatments within stream WLPZs adjacent to the treatment area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Additionally, the largest downed logs (up to three logs per acre) would be retained within ecological restoration treatment areas. Chipped and masticated biomass would not exceed 2-6 inches in depth within WLPZs to prevent suppression of seed germination in areas where amphibians may require vegetative cover.

Pursuant to Mitigation Measure BIO-2a, the project proponent must consult with CDFW for technical input on their proposed measures to avoid injury to or mortality of Cascades frog and their determination for maintenance of

habitat function for this species. Therefore, if Mitigation Measure BIO-2a is required for treatment activities because Cascades frog was identified during focused surveys, the project proponent would contact CDFW to seek technical input on their determination that habitat function would be maintained for Cascades frog. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Southern Long-Toed Salamander

Southern long-toed salamander has potential to occur in high-elevation (i.e., greater than approximately 3,500 feet) meadows, lakes, ponds, and streams in the project area (Table 4.5-2). Adult southern long-toed salamanders can also be found under wood, logs, rocks, bark, or underground in animal burrows within approximately 330 feet (100 meters) of aquatic habitat.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented. However, these measures may not result in full avoidance of southern long-toed salamanders if individuals are present further than 150 feet from streams or lakes, or if manual activities implemented within the WLPZ resulted in injury or mortality of salamanders (e.g., by crushing). The potential for treatment activities and maintenance treatments to result in adverse effects on southern long-toed salamander was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on southern long-toed salamanders can be clearly avoided by physically avoiding the habitat suitable for these species, then no mitigation would be required. However, because southern long-toed salamanders may be present relatively large distances (i.e., up to approximately 330 feet) from aquatic habitat in a treatment area, and because this distance is not well-defined, it is unlikely that all habitat potentially suitable for the species can be avoided. As a result, SPR BIO-10 would apply, and focused surveys for southern long-toed salamanders would be conducted by a qualified RPF or biologist within habitat suitable for the species before implementation of mechanical, manual, prescribed burning, and herbicide treatments.

If southern long-toed salamanders are not detected within the treatment area 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 project proponent would require flagging areas for avoidance, relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury to or mortality of southern long-toed salamanders. The project proponent may consult with CDFW for technical information regarding appropriate impact avoidance measures.

Habitat function for southern long-toed salamanders would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs adjacent to the treatment area would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Additionally, the largest downed logs (up to three logs per acre) would be retained within ecological restoration treatment areas. Chipped and masticated biomass would not exceed 2-6 inches in depth within WLPZs to prevent suppression of seed germination in areas where amphibians may require vegetative cover. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Western Pond Turtle

Aquatic habitat potentially suitable for western pond turtle is present within ponds and streams in and adjacent to the project area, and this species could use upland habitat within the project area in the vicinity of these features. Western pond turtles may be present within upland habitat up to approximately 1,500 feet from water.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV (e.g., drainage canals, irrigation ditches) streams. However, these measures may not avoid impacts on western pond turtles if turtles are present further than 150 feet from stream or lake habitat, are present within ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules), or if manual activities implemented within the WLPZ resulted in injury or mortality of turtles. The potential for

treatment activities and maintenance treatments to result in adverse effects on western pond turtle was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on western pond turtles can be clearly avoided by physically avoiding the habitat suitable for these species, then no mitigation would be required. However, because western pond turtles may be present relatively large distances (i.e., up to approximately 1,500 feet) from aquatic habitat in the treatment area, it is unlikely that all habitat potentially suitable for the species can be avoided. As a result, SPR BIO-10 would apply, and focused visual encounter surveys for western pond turtle would be conducted by a qualified RPF or biologist within upland habitat areas suitable for the species before treatment activities that could potentially kill or remove vegetation or disturb the soil (i.e., mechanical treatments, herbicide application, and prescribed burning). If western pond turtles are identified during focused surveys, Mitigation Measure BIO-2b for this species would be implemented.

Under Mitigation Measure BIO-2b, the project proponent would require flagging areas for avoidance, relocation of individual animals by a qualified RPF or biologist with a valid CDFW scientific collecting permit, and/or other measures recommended by a qualified RPF or biologist as necessary to avoid injury to or mortality of western pond turtles. The project proponent may consult with CDFW for technical information regarding appropriate measures.

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

Northern Spotted Owl

Some of the forest habitat within the project area does not contain nesting habitat suitable for northern spotted owl due to habitat structural characteristics (e.g., small trees, low degree of canopy cover, lack of old growth forest habitat) and existing level of disturbance due to proximity to development. However, portions of the project area contain or are adjacent to forest habitat that may provide nesting habitat suitable or marginally suitable for northern spotted owl due to the age and composition of the forest stands. Portions of the project area have been routinely surveyed for northern spotted owl (e.g., forest habitat surrounding Mills Meadow and Lake Siskiyou); however, spotted owl has not been detected within the project area (Nemec, pers. comm., 2022). USFWS-designated critical habitat for northern spotted owl is present adjacent to the project area in Shasta-Trinity National Forest.

Several northern spotted owl activity centers and observations are located west of the project area in the Shasta-Trinity National Forest; the nearest are within approximately 0.6 mile of the project area (CNDDB 2022). Active northern spotted owl nests in occupied habitat west of the project area are associated with wet meadow systems close to nesting trees (Wood, pers. comm., 2022). This habitat contains dense forest due to fire exclusion but does not contain old growth stands typically preferred by this species (Wood, pers. comm., 2022). Historic fire suppression and harvest of large trees in the portion of the range of northern spotted owl that overlaps the project area and vicinity have led to recruitment of small-tree, closed-canopy forests (i.e., marginal habitat), and the use of these types of habitats by nesting northern spotted owls has increased in the latter part of the 20th century and into the 21st century (Lesmeister et al. 2018) as these practices have led to a decrease in the availability of higher quality suitable habitat.

Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools like chainsaws (i.e., loud and continuous noise), could result in disturbance of nesting northern spotted owls in adjacent suitable habitat, if these activities occur during the sensitive nesting season (February 1–July 9). 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–September 15). The potential for treatment activities to result in adverse effects on special-status birds was examined in the PEIR.

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 a season of sensitivity (e.g., nesting season), then further mitigation

would not be required. Because northern spotted owl nesting occurrences are widespread in areas adjacent to the project area, to determine whether a documented northern spotted owl nesting occurrence is present within 0.25 mile of the treatment area under SPR BIO-1, a qualified RPF or biologist will review northern spotted owl occurrence data in the CNDDB and the project proponent will contact U.S. Forest Service biologists from Shasta-Trinity National Forest to obtain any recent survey and occurrence data for northern spotted owl that have not been made publicly available (e.g., in the CNDDB). If present, potential impacts on the active nesting occurrence resulting from loud and continuous noise will be avoided by implementing a limited operating period within 0.25 mile of the occurrence during the northern spotted owl nesting season (February 1–July 9) for mechanical treatments, manual treatments, and prescribed burning activities. Potential impacts resulting from treatments within 0.25 mile of nest or roost habitat suitable for northern spotted owl would be avoided by implementing a limited operating period within 0.25 mile of this habitat if habitat is expected to be degraded or removed from February 1–September 15. Herbicide application would not result in adverse effects on nesting spotted owls in adjacent suitable habitat because this activity would not involve the use of loud equipment or tools or visual disturbance stimuli (e.g., crews would typically include fewer than 10 people).

If implementing the limited operating period (i.e., February 1–July 9 or February 1–September 15) in treatment areas within 0.25 mile of northern spotted owl nests or habitat, as described above, is determined to be infeasible, then SPR BIO-10 would apply, and protocol-level surveys for northern spotted owl would be conducted by a qualified RPF or biologist within a 0.25-mile buffer surrounding the treatment area in habitat suitable for the species before implementation of treatment activities. Surveys for northern spotted owl will be conducted pursuant to the *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls* (USFWS 2012). If nesting northern spotted owls are not identified during protocol-level surveys, then further mitigation for the species would not be required. If nesting northern spotted owls are identified during protocol-level surveys, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2a, a no disturbance buffer of 0.25 mile would be established around active northern spotted owl nests and no treatment activities would occur within this buffer.

Habitat Function

The U.S. Forest Service Northwest Forest Plan defines habitat suitability for northern spotted owl in several categories based on tree age, tree size, and canopy cover: unsuitable, marginal, suitable, and highly suitable (Davis et al. 2016; Lesmeister et al. 2018). Forest habitat in the project area is not highly suitable for northern spotted owl (i.e., average tree diameter in excess of 30 inches DBH, canopy cover greater than 70 percent); however, some forest habitats may be suitable (i.e., average tree diameter greater than 20 inches, canopy cover greater than 60 percent) or marginal (i.e., mid-seral, lacking large-diameter trees, having similar stand structure) for the species. While these habitats are not considered highly suitable for northern spotted owl, as noted above, selective harvest of large trees and historic and ongoing fire suppression in northern California have resulted in recruitment of forests with small average tree diameter and relatively dense canopy closure, and an apparent shift in use toward these habitats by nesting spotted owls in the region and in forests adjacent to the project area as these practices have led to a decrease in the availability of higher quality suitable habitat. (Lesmeister et al. 2018; Wood, pers. comm., 2022).

As described above in Section 2.1.1, "*Treatment Types*," WUI fuel reduction treatments would occur within 300 feet of homes, and northern spotted owls are less likely to nest in these relatively developed areas. However, northern spotted owls may nest within forest habitats included in fuel break treatments and ecological restoration treatments. Maintenance of habitat function for northern spotted owl would require the retention and maintenance of forest structural attributes (e.g., canopy cover, understory structure, average tree DBH, downed woody debris) required for foraging, nesting, and roosting activities. Additionally, long-term maintenance of habitat function for this species would require maintenance and creation of successional heterogeneity by retaining a sufficient number of trees of various age classes to facilitate forest regeneration and continuous age-class recruitment over time. Managing for the presence of high-quality patches of early-seral forest and a mix of non-forest and forest habitat at a landscape level may also benefit northern spotted owl by providing structural diversity and complexity (Lesmeister et al. 2018).

Habitat function for northern spotted owl would be maintained because treatment activities would not result in removal of most trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) greater than 12 inches DBH, which would be the most likely features to be used by these species due to the cover provided by larger trees. For

ecological restoration treatments, canopy cover within forest habitats occupied or potentially occupied by northern spotted owl would be maintained at 60 percent or greater, and treatments would be designed by a qualified RPF to maintain tree age class diversity and a sufficient number of young understory trees to facilitate forest regeneration and long-term maintenance of habitat function. Additionally, up to two large snags would be retained per acre in ecological restoration treatment areas, with a preference for the largest snags that exhibit the form and decay characteristics favored by northern spotted owl and other wildlife. Pursuant to Mitigation Measure BIO-2a, the final determination for habitat function maintenance must be made by the project proponent in consultation with CDFW and USFWS. Therefore, if Mitigation Measure BIO-2a is required for treatment activities because northern spotted owl was observed during focused surveys, the project proponent would contact CDFW and USFWS to seek technical input on the determination that habitat function would be maintained for northern spotted owl. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Other Special-Status Birds

Seven additional special-status bird species have potential to occur in the project area: American peregrine falcon, bald eagle, bank swallow, greater sandhill crane, northern goshawk, Swainson's hawk, willow flycatcher, and yellow rail (Table 4.5-2).

Treatment activities, including mechanical treatments, manual treatments, and prescribed burning conducted during the nesting bird season (February 1–August 31) could result in direct loss of active nests if trees or shrubs containing nests or ground nests are removed or burned. For nests within vegetation that would not be removed, treatment activities including mechanical treatments, manual treatments, prescribed burning, and herbicide application, could result in disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel) potentially resulting in abandonment and loss of eggs or chicks. The potential for treatment activities to result in adverse effects on special-status birds was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on habitat suitable for nesting special-status birds can be clearly avoided by physically avoiding habitat suitable the species or conducting treatments outside of a season of sensitivity (e.g., nesting bird season), then no mitigation would be required. Adverse effects on nesting special-status birds would be clearly avoided for treatments that would occur outside of the nesting bird season (February 1–August 31).

If conducting some treatments outside of the nesting bird season is determined to be infeasible, then SPR BIO-10 would apply, and focused nesting bird surveys for American peregrine falcon, bald eagle, bank swallow, greater sandhill crane, northern goshawk, Swainson's hawk, willow flycatcher, and yellow rail would be conducted by a qualified RPF or biologist before implementation of treatment activities. Established survey protocols will be followed for certain species including but not limited to northern goshawk (U.S. Forest Service 2006), Swainson's hawk (Swainson's Hawk Technical Advisory Committee 2000), and willow flycatcher (Bombay et al. 2003). Like northern spotted owl, northern goshawk is associated with mature forest habitats that are most likely to be present within U.S. Forest Service land adjacent to the project area. Prior to implementing SPR BIO-10 for this species, the project proponent will contact U.S. Forest Service biologists from Shasta-Trinity National Forest to obtain any recent survey and occurrence data for northern goshawk that have not been made publicly available (e.g., in the CNDDB).

If no active bird nests are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status bird nests are observed during focused surveys, then Mitigation Measures BIO-2a (for American peregrine falcon, bald eagle, bank swallow, greater sandhill crane, Swainson's hawk, and willow flycatcher) and BIO-2b (for northern goshawk and yellow rail) would be implemented.

Under Mitigation Measures BIO-2a or BIO-2b, a no-disturbance buffer of at least 0.5 mile would be established around active American peregrine falcon and bald eagle nests; 0.25 mile for Swainson's hawk and northern goshawk nests; 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 as determined by a qualified RPF or biologist. Additionally, trees containing bald 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 most trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) greater than 12 inches DBH, which would be the most likely features to be used by these species due to the cover provided by larger trees. Additionally, up to two large snags would be retained per acre in ecological restoration treatment areas, with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife. Further, treatments within riparian habitat (which may provide nesting habitat for special-status bird species, including willow flycatcher) that is included within a WLPZ would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Nesting habitat for some special-status bird species that may occur in the project area includes cliffs (e.g., American peregrine falcon) and banks (e.g., bank swallows). Treatment activities would not occur in these habitats; thus, this nesting habitat would not be removed or modified. Pursuant to Mitigation Measure BIO-2a, the final determination for habitat function maintenance for American peregrine falcon, bald eagle, bank swallow, greater sandhill crane, Swainson's hawk, and willow flycatcher must be made by the project proponent in consultation with CDFW. Therefore, if Mitigation Measure BIO-2a is required for treatment activities, the project proponent would contact CDFW to seek technical input on the determination that habitat function would be maintained for American peregrine falcon, bald eagle, bank swallow, greater sandhill crane, and Swainson's hawk. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Special-Status Bumble Bees

Three special-status bumble bee species have potential to occur in the project area: Franklin's bumble bee, Suckley's cuckoo bumble bee, and western bumble bee (Table 4.5-2). Franklin's bumble bee is listed as endangered under ESA. The range of Franklin's bumble bee is restricted to southern Oregon and northern California, including parts of Siskiyou and Trinity counties, and including the project area (Williams et al. 2014; Xerces 2010; Xerces 2018). Franklin's bumble bee has not been observed in California since 1998, and has not been observed at all since 2006, despite ongoing surveys within the range of the species (Code and Haney 2006; Xerces 2010; Xerces 2018). The sighting in 2006 was a single bumble bee near Mt. Ashland, approximately 50 miles north of the project area (Code and Haney 2006; Xerces 2010; Xerces 2018). Surveys for the species have been conducted at least through 2017, including at least three locations in Siskiyou County (i.e., Mt. Shasta, Hilt, Montague) and no Franklin's bumble bees have been detected (Xerces 2018). Xerces Society for Invertebrate Conservation has developed a species distribution model using known occurrence data and environmental factors (e.g., temperature, precipitation, elevation, soils) to predict the probability of occurrence of the species throughout its range (Xerces Society 2021). This species distribution model identified potential occurrence locations largely west and northwest of the project area within Klamath National Forest and southern Oregon and no modeled potential occurrence areas are present in the project area (Xerces Society 2021).

All three bumble bee species were designated as candidates for listing as endangered under CESA by the California Fish and Game Commission on June 12, 2019. A November 13, 2020, court decision by the Superior Court of Sacramento ruled that insects are not eligible for listing under CESA and vacated the candidacy of these species. CDFW appealed this decision, and on May 31, 2022, the Third District Court of Appeal in Sacramento ruled that insects are eligible for listing under CESA. On September 30, 2022, the candidacy of these bumble bee species was reinstated under CESA. All of these bumble bee species have recently undergone declines in abundance and distribution and are no longer present across much of their historic range.

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

Survey protocols for Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee have not been published; however, visual encounter surveys, as described in Code and Haney 2006, likely followed a protocol similar to those published for other bumble bee species in the United States (e.g., rusty-patched bumble bee [*Bombus affinis*]; USFWS 2018). The USFWS survey protocol for rusty-patched bumble bee classifies habitats within the range of the species as high potential zones, low potential zones, uncertain zones, and unoccupied zones (USFWS 2018). Following the same definitions as provided in this protocol, the project area would be considered unoccupied by Franklin's bumble bee, because the last known record of Franklin's bumble bee in California was before 2000 (i.e., 1998) and because there have been at least three years of negative survey results since the last known effort (Code and Haney 2006; USFWS 2018; Xerces 2010; Xerces 2018). There are two documented western bumble bee occurrences in the project area from 1939 and 1960 (CNDDB 2022). There are no documented occurrences of Suckley's cuckoo bumble bee in Siskiyou County; however, this species is a nest parasite of western bumble bee and could potentially occupy the same range as western bumble bee in the vicinity of the project area. The occurrences of western bumble bee are older than 2000 and western bumble bee and Suckley's cuckoo bumble bee likely would have been detected, if present, and documented during surveys for Franklin's bumble bee. Based on all of these factors, it is unlikely that Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee occur in the project area. However, because absence of these species in the project area cannot be determined with certainty, SPR BIO-1 and SPR BIO-10 would apply.

Per SPR BIO-1, if it is determined that adverse effects on special-status bumble bees can be clearly avoided by conducting treatments outside of a season of sensitivity (e.g., flight season) or physically avoiding habitat for these species, then mitigation would not be required. Adverse effects on special-status bumble bees would be clearly avoided if a limited operating period from May 15 to August 31 would be implemented for mechanical treatment or prescribed burning in meadows, if feasible. If the limited operating period is determined to be infeasible, then SPR BIO-10 would be implemented, and focused surveys for special-status bumble bees, focused on Franklin's bumble bee, would be conducted in coordination with the USFWS Yreka office.

Habitat function for Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee would be maintained because treatment activities and maintenance treatments would retain two large snags per acre (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife) and the largest downed logs up to three logs per acre would be retained within ecological restoration treatment areas, which would be the most likely features to be used by special-status bumble bees. Further, SPR BIO-9 would be implemented, which would prevent the spread of invasive plants and noxious weeds through application of best management practices before, during, and after treatments. Pursuant to Mitigation Measure BIO-2a, the final determination for habitat function maintenance must be made by the project proponent in consultation with USFWS (for Franklin's bumble bee) and CDFW (for Franklin's bumble bee, Suckley's cuckoo bumble bee, and western bumble bee). Therefore, if Mitigation Measure BIO-2a is required for treatment activities, the project proponent would contact USFWS and CDFW, as applicable, to seek technical input on the determination that habitat function would be maintained for Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee, and input on their proposed measures to avoid injury to or mortality of these species.

Shasta Valley RCD and Ascent discussed methods to avoid take and maintain habitat function with CDFW and USFWS on October 11, 2022, and October 12, 2022, respectively. Both agencies agreed that Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee are unlikely to occur in the project area. USFWS provided a recommended limited operating period and survey requirement for Franklin's bumble bee, which are outlined above. Therefore, and pursuant to this guidance from USFWS and CDFW, take is considered to be unlikely as defined under ESA and CESA during implementation of the proposed treatments. The PEIR concluded that impacts on special-status bumble bees would be potentially significant and unavoidable, because it addressed the entirety of the treatable landscape across the state, so significant impacts could not be ruled out. Addressing this potential effect at a project-specific level may result in a different significance conclusion, if evidence supports it.

It is very unlikely that Franklin's bumble bee, western bumble bee, and Suckley's cuckoo bumble bee occur in the project area (as described above). A limited operating period for mechanical treatment and prescribed burning would be implemented in meadows during the bumble bee flight season (May 15–August 31), surveys for special-status bumble

bees focused on Franklin's bumble bee would be conducted if the limited operating period is determined to be infeasible for some treatments in coordination with USFWS. Finally, habitat function would be maintained for all special-status bumble bee species (as described above). For these reasons, it is unlikely that populations of these species would be reduced below self-sustaining levels as a result of implementation of the proposed project or that treatment activities would substantially reduce the number or restrict the range of species. Therefore, this impact would be less than significant. As described above, USFWS and CDFW concurred that take would be unlikely and habitat function would be maintained; although these determinations were made by the wildlife agencies pursuant to ESA and CESA, respectively, they support the determination that this impact would be less than significant under CEQA, and less severe than contemplated in the PEIR.

Monarch

There are several documented observations of milkweed, one observation of a monarch caterpillar, and several nearby observations of adult monarchs within and adjacent to the project area (Western Monarch Milkweed Mapper 2022). The project area is outside of the monarch overwintering range; however, it is within the breeding and foraging range and contains various natural habitats and floral resources that likely provide foraging or breeding habitat suitable for the species. Treatment activities, including manual treatments, mechanical treatments, prescribed burning, and herbicide application could result in temporary removal of floral resources, including monarch host plants (i.e., milkweed), or direct mortality of monarch butterflies. The potential for treatment activities to result in adverse effects on monarch butterflies was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on monarch butterflies can be clearly avoided by conducting treatments outside of a season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. However, because monarchs may use habitat in the project area for large portions of the year (i.e., there is no season of sensitivity), implementation of SPR BIO-10 would be required before treatment activities. Under SPR BIO-10, presence of monarch butterflies would be assumed.

If focused surveys are conducted and monarchs are not detected, then further mitigation for the species would not be required. If monarchs are detected during focused surveys, or are assumed to be present, then Mitigation Measure BIO-2e would be implemented. Under Mitigation Measure BIO-2e, several measures will be implemented to reduce the likelihood of mortality, injury, or disturbance to monarchs and to maintain habitat function. These measures include retention of host plants (i.e., milkweed) and conducting treatments in a patchy pattern to retain floral resources and provide refuge for butterflies.

Habitat function for monarch would be maintained because treatment activities and maintenance treatments would retain host plants for the species and because all habitat suitable for monarch in the project area would not be treated at once (i.e., treatments in the project area would occur over the course of several years). The project area is surrounded by natural habitat in Shasta-Trinity National Forest to the west and south and Mt. Shasta to the east; therefore, any temporary impacts resulting from project implementation in the project area would not result in significant loss of natural habitat in the vicinity of the project area. If monarchs are listed under ESA during the life of the project, then the final determination for habitat function maintenance must be made by the project proponent in consultation with USFWS. Therefore, if Mitigation Measure BIO-2e is required for treatment activities, the project proponent would contact USFWS to seek technical input on the determination that habitat function would be maintained for monarch butterflies, and input on their proposed measures to avoid injury to or mortality of the species. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

American Badger

Habitat potentially suitable for American badger is present within grassland, open woodland, and agricultural areas in the project area. Treatment activities, including mechanical treatments and prescribed burning could result in direct loss of active dens and potential loss of young, if present in treatment areas. Manual treatments and herbicide application treatments would not result in adverse effects on American badger dens, because these treatments would typically occur within habitats where American badger dens are unlikely to occur (e.g., forest habitat), and because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or

otherwise destroyed would be very low. The potential for treatment activities to result in adverse effects on American badger was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on American badger can be clearly avoided by conducting treatments outside of a season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. However, because American badgers may use a den year-round (i.e., there is no season of sensitivity), and because focused surveys for American badgers have not been conducted, implementation of SPR BIO-10 would be required before mechanical treatments and prescribed burning. Under SPR BIO-10, focused surveys would be conducted for American badger dens within habitat suitable for the species (i.e., grasslands, open woodland) by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities. 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 thinning and removal of ladder fuels. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Fisher

The historic range of fisher has been significantly reduced due to historic trapping, development, and habitat conversion; however, the current range of this species includes the Klamath Mountains and a small portion of the Cascade Range (Center for Biological Diversity 2008). The current range of fisher may include the western forested portion of the project area. Habitat suitable for fisher includes stands with high canopy closure, large trees and snags, large woody debris, large hardwoods, and multiple canopy layers. Most of the project area does not contain habitat suitable for fisher due to habitat characteristics (e.g., small trees, low degree of canopy cover, lack of old growth forest habitat) and existing level of disturbance due to proximity to development. However, portions of the project area contain or are adjacent to forest habitat may provide habitat suitable or marginally suitable for fisher due to the age and composition of the forest stands.

Fisher den habitat includes cavities within live trees or snags, rock piles, or woody debris pile, and fishers typically choose the largest feature within an area for denning. Most habitat features that provide den sites suitable for fisher would be avoided, as most live trees larger (i.e., hardwoods, conifers, except knobcone pine and juniper) than 12 inches DBH would not be removed during treatment or maintenance activities and because rocky areas would not be targeted for vegetation treatment; however, downed woody debris would be targeted for treatment as would some large snags, and these features would not be avoided through implementation of other measures. The potential for treatment activities, including maintenance treatments, to result in adverse effects on fisher was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on fisher can be clearly avoided by conducting treatments outside of a season of sensitivity (e.g., maternity season), then mitigation would not be required. Outside of the breeding season, fishers would likely flee due to the presence of equipment, vehicles, or personnel, which would reduce the risk of their injury or mortality. Manual treatments and herbicide application treatments would not result in adverse effects on fisher dens, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. However, mechanical treatments and prescribed burning conducted during the fisher maternity season (i.e., the period during which young would be present in a den, approximately March 1–June 30) and within forest habitats suitable for fisher, could result in destruction of active dens in downed woody debris piles or snags, or disturbance to active dens potentially resulting in abandonment and loss of young, which may not yet be capable of fleeing. Adverse effects on fishers would be clearly avoided for mechanical treatments and prescribed burning that would occur outside of the fisher maternity season (March 1–June 30) under SPR BIO-1.

If conducting some mechanical treatments and prescribed burning outside of the fisher maternity season is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and presence of fishers would be

assumed, or focused surveys for fishers would be conducted within areas in the treatment area determined to contain habitat suitable for the species by a qualified RPF or biologist before implementation of mechanical treatments and prescribed burning. Surveys for fisher would include the use of trail cameras, track plates, and other non-invasive survey methods to determine whether fishers are present within the treatment area and would be conducted by a qualified RPF or biologist. If baited trail cameras are used, the qualified professionals should obtain a valid CDFW Scientific Collecting Permit. If focused surveys are conducted and fishers are not detected, then further mitigation for the species would not be required. If fishers are detected during focused surveys, then additional surveys would be required to determine whether an active fisher den is present within the treatment area. If an active den is identified by a qualified RPF or biologist, 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 through consultation with CDFW. No treatment activities would occur within this buffer.

If the presence of fisher within the treatment area is assumed, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2b before and during implementation of mechanical treatments and prescribed burning between March 1 and June 30. Avoidance and minimization measures would include but not be limited to pre-treatment den surveys, daily sweeps of the treatment area, and biological monitoring.

Habitat function for fisher would be maintained because treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) greater than 12 inches DBH, and would retain two large snags per acre within ecological restoration treatment areas (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife), which would be the most likely features to be used by this species due to the cover provided by larger trees. For ecological restoration treatments, canopy cover within forest habitats occupied or potentially occupied by northern spotted owl (which share many habitat requirements with fisher) would be maintained at 60 percent or greater, and treatments would be designed by a qualified RPF or silviculturist to maintain tree age class diversity and a sufficient number of young understory trees to facilitate forest regeneration and long-term maintenance of habitat function. Additionally, rocky areas would not be targeted for vegetation treatment. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Gray Wolf

Since the 2011 dispersal of Oregon wolf OR-7, one breeding pack and several dispersed wolves are currently known to be in California. Contemporary sightings of gray wolves in California have included a pack in Siskiyou County (i.e., the Shasta Pack) and more recently (i.e., 2021), a potential breeding pair of wolves near Mount Shasta (i.e., the Whaleback Pack; CDFW 2022a). The Shasta Pack was first detected in early 2015, but has not been detected since November 2015, except for one yearling identified in the pack's range in 2016 (CDFW 2022a). The Whaleback Pack occupies an approximately 480 square mile home range in eastern Siskiyou County, and in 2021, the pair produced seven pups (CDFW 2022a). There have been several additional observations of GPS-collared wolves occupying or traveling through Siskiyou County in recent years (CDFW 2022a). The home range of the Whaleback Pack includes areas east, southeast, north, and northwest of Mt. Shasta; not currently including the project area (CDFW 2022a). However, the home ranges of other GPS-collared gray wolves that have been detected in Siskiyou County and home ranges of uncollared wolves that may not have been detected may include a portion or all of the project area.

Gray wolf breeding season typically lasts from January until late March, and pups are typically born in April or May; however, this season can vary depending on multiple factors, including geographic location. Wolf pups are born in a natal den, which is typically a hole in the ground, a rock crevice, a hollow log, bases of hollow trees, an overturned stump, or other quiet location (American Society of Mammalogists 1974; Wisconsin Department of Natural Resources 2016). Gray wolf pups are born altricial (i.e., blind, helpless) and do not open their eyes for approximately two weeks. After approximately eight weeks, the pups are moved to a different location called a "rendezvous site." Rendezvous sites, which are usually within 1 mile of a den site, are typically open areas of grass or sedge adjacent to wetlands, and can be characterized by extensive matted vegetation, numerous trails, and beds usually at the forest edge (Wisconsin Department of Natural Resources 2016). Rendezvous sites are typically used from mid-May to mid-October, and wolf

packs may use multiple rendezvous sites within their home ranges (Wisconsin Department of Natural Resources 2016).

Treatment activities, including manual treatments, mechanical treatments, prescribed burning, and herbicide application could result in loss or disturbance of active natal dens and potential loss of helpless young if present in treatment areas. While manual treatments and herbicide application treatments would be less impactful than mechanical treatments because heavy equipment would not be used, these activities would include the use of loud hand-operated power tools (e.g., chainsaws) and presence of personnel or vehicles, which could result in disturbance to nearby natal dens or rendezvous sites, and potential abandonment of these sites. The potential for treatment activities to result in adverse effects on gray wolf was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on gray wolf can be clearly avoided by conducting treatments outside of a season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. However, there is no reliable season during which all impacts on this species could be avoided and avoidance of habitat is not feasible due to the species' large home range. Thus, implementation of SPR BIO-10 would be required before all treatment activities.

As part of SPR BIO-10, and because gray wolf detections are generally not made public, a qualified RPF or biologist will contact CDFW before implementation of treatment activities to obtain general information about documented gray wolf activity within or in the vicinity of a treatment area. If information provided by CDFW indicates that there is current or prior gray wolf activity within a treatment area, then Mitigation Measure BIO-2a would be implemented. If gray wolf activity has not been documented in a treatment area, pursuant to information provided by CDFW, and the treatment area does not overlap the home range of a documented gray wolf or gray wolf pack, and CDFW concurs that the species is unlikely to occur in the treatment area, then the project will proceed without surveys. If gray wolf occurrences have not been documented in a treatment area and the treatment area does not overlap the home range of a documented gray wolf or gray wolf pack, but presence of gray wolves cannot be ruled out by CDFW, then focused surveys for gray wolf activity will be conducted within the treatment area and within 1 mile of the treatment area before implementation of treatment activities. Surveys for gray wolves will include the use of trail cameras, track plates, and other non-invasive survey methods to determine whether wolves are present within the treatment area and would be conducted by a qualified RPF or biologist. If gray wolves are not detected during focused surveys, then further mitigation for the species would not be required. If gray wolves are detected during focused surveys, the project proponent will contact CDFW immediately and treatment activities would not be initiated in the treatment area until CDFW provides further guidance. Additional surveys may be required to determine whether an active gray wolf natal den or rendezvous site is present within the treatment area, in consultation with CDFW. If an active den or rendezvous site is identified by a qualified RPF or biologist, Mitigation Measure BIO-2a would apply, and a no-disturbance buffer of at least one mile would be established around the natal den or rendezvous site, in consultation with CDFW, and no treatment activities would occur within this buffer. No activities that create loud and continuous noise will occur within the no-disturbance buffer through June 30 for a natal den site or through August 31 for a rendezvous site.

As described above in Section 2.1.1, "*Treatment Types*," WUI fuel reduction treatments would occur within 300 feet of homes, and gray wolves are less likely to establish natal den sites or rendezvous sites within these relatively developed areas. However, habitat suitable for natal dens or rendezvous sites may be present in areas where fuel break treatments and ecological restoration treatments would occur. Habitat function for gray wolf would be maintained because treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) greater than 12 inches DBH, and would retain two large snags per acre within ecological restoration treatment areas, with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife, and for gray wolves (e.g., large basal hollows). Additionally, the largest downed logs up to three logs per acre would be retained within ecological restoration treatment areas. Therefore, some features typically used by gray wolves as natal den habitat would be retained. Other features sometimes used as natal den habitat, including large burrows or rock crevices, would not be targeted for treatments and therefore would be retained in the project area. Gray wolves have very large home ranges and use many habitat types at a landscape scale. At this scale, habitat function for gray wolves would be maintained because treatments

would not result in type conversion (i.e., forest to shrub, shrub to herbaceous) through implementation of tree retention parameters and SPRs. While treatment activities could result in temporary disruption of wolf movement or movement of prey species (e.g., mule deer) in the vicinity of a treatment area, these effects would be limited to the period during which equipment and personnel were actively conducting treatments. No barriers to wolf or deer movement would remain post-treatment, and in treatment areas with dense understory conditions, post-treatment conditions may improve for wildlife movement.

Pursuant to Mitigation Measure BIO-2a, the final determination for habitat function maintenance must be made by the project proponent in consultation with CDFW and USFWS. Therefore, if Mitigation Measure BIO-2a is required for treatment activities, the project proponent would contact CDFW and USFWS to seek technical input on the determination that habitat function would be maintained for gray wolf and input on their proposed measures to avoid injury to or mortality of this species. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Oregon Snowshoe Hare

Habitat potentially suitable for Oregon snowshoe hare is present primarily within understory thickets in riparian areas or shrubby understories of young conifer forests in the project area. Snowshoe hares build nests (which are also known as "forms") on the ground within shrub habitat or young forest habitat. Snowshoe hare young are precocial, meaning that they are born fully furred and capable of locomotion very soon after birth. Snowshoe hare young are typically born from mid-April to May (Sullivan 1995). Young Sierra Nevada snowshoe hares, a close relative to the Oregon snowshoe hare, have been observed from approximately June through July (Brylski et al. 1998).

Per SPR BIO-1, if it is determined that adverse effects on Oregon snowshoe hare can be clearly avoided by conducting treatments outside of a season of sensitivity (e.g., maternity season), then mitigation would not be required. Outside of the maternity season, resting snowshoe hares would likely flee due to the presence of equipment, vehicles, or personnel, which would reduce the risk of injury or mortality. Manual treatments and herbicide application treatments would not result in adverse effects on snowshoe hare nests because personnel would conduct these activities on foot, and the likelihood of a nest being inadvertently crushed or otherwise destroyed would be very low. However, mechanical treatments and prescribed burning conducted during the Oregon snowshoe hare maternity season (i.e., the period during which young would be present in a den, conservatively to account for uncertainty, approximately April 1–June 30) could result in destruction of active nests within shrub habitat or disturbance to active nests potentially resulting in abandonment and loss of young, which may not yet be capable of fleeing. Adverse effects on Oregon snowshoe hare would be clearly avoided for mechanical treatments and prescribed burning that would occur outside of the snowshoe hare maternity season (April 1–June 30) under SPR BIO-1.

If conducting some mechanical treatments and prescribed burning outside of the snowshoe hare maternity season is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, or focused surveys for Oregon snowshoe hare would be conducted within the treatment area before mechanical treatments and prescribed burning. Under SPR BIO-10, focused surveys would be conducted for Oregon snowshoe hare nests within habitat suitable for the species (i.e., riparian areas, shrubby young conifer stands) by a qualified RPF or biologist. If focused surveys are conducted and Oregon snowshoe hare nests are not detected, then further mitigation for the species would not be required. If Oregon snowshoe hare nests 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 nest, 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 Oregon snowshoe hare would be maintained because pursuant to SPR HYD-4, treatments within stream WLPZs adjacent to the treatment area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover) which would result in retention of riparian habitat suitable for this species. Additionally, 10 percent of shrub habitat would be retained in ecological restoration treatment areas to create shrub patches. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Ringtail

Ringtail is primarily nocturnal, and typically occurs in riparian areas, forests (including stands of various ages), and shrub habitats. Potential denning habitat includes rock outcrops, crevices, snags, large hardwoods, large conifers, and shrubs. Most of these habitats would be avoided, as most live trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) larger than 12 inches DBH would not be removed during treatment or maintenance activities and because rocky areas would not be targeted for vegetation treatment; however, shrub habitat would be targeted for treatment and would not be avoided through implementation of other measures. The potential for treatment activities, including maintenance treatments, to result in adverse effects on ringtail was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on ringtail can be clearly avoided by conducting treatments outside of a season of sensitivity (e.g., maternity season), 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, which would reduce the risk of their injury or mortality. Manual treatments and herbicide application treatments would not result in adverse effects on ringtail dens because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. However, mechanical treatments and prescribed burning conducted during the ringtail maternity season (i.e., the period during which young would be present in a den, approximately April 15–June 30) could result in destruction of active dens within shrub habitat or disturbance to active dens potentially resulting in abandonment and loss of young, which may not yet be capable of fleeing. Adverse effects on ringtail would be clearly avoided for mechanical treatments and prescribed burning that would occur outside of the ringtail maternity season (April 15–June 30) under SPR BIO-1.

If conducting some mechanical treatments and prescribed burning outside of the ringtail maternity season is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and presence of ringtail would be assumed, or focused surveys for ringtail would be conducted within the treatment area before implementation of treatment activities. Surveys for ringtail will 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. If baited trail cameras are used, the qualified professionals should obtain a valid CDFW Scientific Collecting Permit. If focused surveys are conducted, and ringtails are not detected, then further mitigation for the species would not be required. If ringtails are detected during focused surveys, then 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, Mitigation Measure BIO-2a would be implemented. Under Mitigation Measure BIO-2a, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW. No treatment activities would occur within this buffer.

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

Habitat function for ringtail would be maintained because treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) greater than 12 inches DBH, and would retain two large snags per acre within ecological restoration treatment areas (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife), which would be the most likely features to be used by this species due to the cover provided by larger trees. Additionally, rocky areas would not be targeted for vegetation treatment. Pursuant to Mitigation Measure BIO-2a, the final determination for habitat function maintenance must be made by the project proponent in consultation with CDFW. Therefore, if Mitigation Measure BIO-2a is required for treatment activities, the project proponent would contact CDFW to seek technical input on the determination that habitat function would be maintained for ringtail and input on their proposed measures to avoid injury to or mortality of this species. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Sierra Nevada Mountain Beaver

Habitat potentially suitable for Sierra Nevada mountain beaver may be present adjacent to perennial streams with dense, shrubby habitat. Many streams within the project area do not provide habitat suitable for this species. Sierra Nevada mountain beavers are strongly associated with aquatic habitat and are not found far from water.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV (e.g., drainage canals, irrigation ditches) streams. Mechanical treatments would not occur within WLPZs. However, these measures may not avoid impacts on Sierra Nevada mountain beaver, if manual activities implemented within the WLPZ resulted in injury or mortality of mountain beavers. The potential for treatment activities and maintenance treatments to result in adverse effects on Sierra Nevada mountain beaver was examined in the PEIR.

Per SPR BIO-1, if it is determined that adverse effects on Sierra Nevada mountain beaver can be clearly avoided by conducting treatments outside of a season of sensitivity, then mitigation would not be required. However, because Sierra Nevada mountain beavers may use a den year-round, and because individuals may retreat to burrows in response to the presence of vehicles, equipment, or personnel, implementation of SPR BIO-10 would be required before treatments within habitat suitable for the species (e.g., dense riparian habitat adjacent to perennial streams). Under SPR BIO-10, focused surveys (i.e., burrow searches) for Sierra Nevada mountain beavers would be conducted in areas up to 200 feet from perennial streams within the treatment area before implementation of treatment activities. If focused surveys are conducted and Sierra Nevada mountain beaver burrows are not detected, then further mitigation for the species would not be required. If Sierra Nevada mountain beaver burrows are detected during focused surveys, then additional surveys would be required to determine whether the burrow is active. If an active burrow is identified by a qualified RPF or biologist, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer of at least 250 feet would be established around the burrow, and no treatment activities would occur within this buffer.

Habitat function for Sierra Nevada mountain beaver would be maintained because pursuant to SPR HYD-4, treatments within stream WLPZs adjacent to the treatment area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover) which would result in retention of habitat suitable for this species. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Special-Status Bats

Habitat potentially suitable for five special-status bat species—pallid bat, spotted bat, Townsend's big-eared bat, western mastiff bat, and western red bat—is present within forest habitat, rocky areas, and human-made structures (e.g., barns, bridges) in the project area. Per SPR BIO-1, if it is determined that adverse effects on special-status bats would be clearly avoided by conducting treatments outside of a season of sensitivity (e.g., maternity season), then mitigation would not be required. Adverse effects on special-status bat maternity roosts would be clearly avoided if initial and maintenance treatments were implemented outside of the bat maternity season (April 1–August 31; Caltrans 2004).

Treatment activities, including mechanical treatments, manual treatments, and prescribed burning conducted within habitat suitable for bats during the bat maternity season (April 1–August 31) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chainsaws, vehicles, personnel) or smoke (e.g., prescribed burning) potentially resulting in abandonment of the roost and loss of young. Herbicide treatments that would occur away from established roads would be limited to ground-based methods, such as using a backpack sprayer or painting herbicide onto cut stems and would be conducted by crews of 1-5 people; thus, these treatments would not 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 PEIR.

If implementation of some mechanical or manual treatments, or prescribed burning, would occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for these species would be conducted by a qualified RPF or biologist within suitable habitat areas before initiation of manual, mechanical, and prescribed

burning treatments. If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats would be implemented.

Under Mitigation Measure BIO-2b, a no-disturbance buffer of 250 feet would be established around active pallid bat, spotted bat, Townsend's big-eared bat, western mastiff bat, and western red bat roosts and mechanical treatments, manual treatments, and prescribed burning would not occur within this buffer. A no-disturbance buffer of 250 feet is necessary to protect sensitive roosts to provide adequate protection such that impacts would be less than significant under CEQA.

Habitat function for special-status bats would be maintained because treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods, excluding knobcone pine and juniper) greater than 12 inches DBH, and would retain two large snags per acre within ecological restoration treatment areas (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife), which would be the most likely features to be used by this species. Further, bat foraging habitat, including meadows and open water, would not be modified during treatments and thus would be retained in the project area. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Conclusion

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

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," and under Impact BIO-1, Shasta Valley RCD proposes to revise requirements under SPR HYD-4 during broadcast burning activities to allow for igniting within potential WLPZs in meadow habitat using only propane torches. This constitutes a revision to the program description as analyzed in the PEIR.

Additionally, as described under Impact BIO-1, Shasta Valley RCD proposes to revise requirements under Mitigation Measure BIO-4 to directly ignite vegetation within meadows using only propane torches to better control fire behavior, which would require a revision from the restrictions in Mitigation Measure BIO-4 that prohibit direct ignition within wetland buffers. Without this revision to Mitigation Measure BIO-4, the objective to conduct prescribed burning in meadows could not be achieved. See Section 2.1.1, "Treatment Types" for more information regarding the importance of conducting broadcast burning in meadow habitats to achieve the restoration goals of the project.

Proposed revisions to SPR HYD-4 and Mitigation Measure BIO-4 could result in impacts on special-status wildlife potentially present in meadow habitats; however, the project proponent would still be required to implement SPRs and mitigation measures to reduce impacts on these resources within meadow habitats. Special-status wildlife species that could occur in meadow habitats are Cascades frog, southern long-toed salamander, western pond turtle, greater sandhill crane, willow flycatcher, and American badger (Table 4.5-2). Pursuant to SPR BIO-1 and SPR BIO-10, impacts on these species would be minimized through avoidance of sensitive seasons (e.g., nesting bird season), avoidance of habitats (e.g., wetlands, streams), and through identification of occupied habitat through focused surveys. Pursuant to Mitigation Measure BIO-2a, Mitigation Measure BIO-2b, and Mitigation Measure BIO-4, broadcast burning (including ignition and backing fires) would not occur within wetland buffers or WLPZs if special-status species are present within these areas as determined through implementation of surveys required under SPR BIO-10. Therefore, proposed revisions in SPR HYD-4 and Mitigation Measure BIO-4, specifically for broadcast burning in meadows,

would not result in a substantially more severe significant effect on special-status wildlife than what was covered in the PEIR. The text revisions to SPR HYD-4 and Mitigation Measure BIO-4 are shown in underline and strikethrough in the MMRP (Attachment A).

Biological resource SPRs that apply to project impacts under Impact BIO-2 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-5, SPR BIO-10, SPR HAZ-5, SPR HAZ-6, SPR HYD-1, and SPR HYD-4. Biological resource mitigation measures that apply to project impacts under Impact BIO-2 are Mitigation Measure BIO-2a, Mitigation Measure BIO-2b, Mitigation Measure BIO-2c, and Mitigation Measure BIO-2e. As explained above, impacts on special-status wildlife resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

IMPACT BIO-3

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

Based on species ranges, occurrence data, vegetation mapping, aerial photos, and the reconnaissance-level survey conducted pursuant to SPR BIO-1, the following sensitive habitats (as identified in Manual of California Vegetation, and CalVTP PEIR) are not anticipated to occur within the treatment area: beach pine forest, Bishop pine - Monterey pine forest, western hemlock forest, Sitka alder thicket, resin birch thicket, sandbar willow thicket, Jepson willow thicket, wild grape shrubland, giant sequoia forest, and Washoe pine woodland.

Based on the habitat types present in the project area and the reconnaissance-level survey of the treatment area, 30 sensitive natural communities (i.e., natural communities with a rarity rank of S1, S2, or S3) may be present in the project area. The sensitive natural communities, the associated rarity rank, and the habitat type within which the communities may occur are presented in Table 4.5-4. In addition, several oak woodland and forest types (i.e., blue oak woodland, interior live oak, canyon live oak, Oregon white oak, mixed oak forest), which are sensitive habitats pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4, may occur in the project area.

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, several species associated with these sensitive natural communities were observed, including bigleaf maple (*Acer macrophyllum*), Douglas fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), tanoak (*Notholithocarpus densiflorus*), Oregon white oak (*Quercus garryana*), red osier (i.e., creek dogwood; *Cornus sericea*), alder (*Alnus* spp.), and cottonwood (*Populus* spp.). While all dominant species associated with sensitive natural communities included in Table 4.5-4 were not observed during the reconnaissance-level survey, these communities may be present. As a result, before implementation of treatment activities, SPR BIO-3 would be implemented and a qualified RPF or biologist would identify sensitive natural communities in the 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).

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

Table 4.5-4 Sensitive Natural Communities Documented or with Potential to Occur in the Project Area

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
Baker Cypress Stands	S2.2	Closed-Cone Pine-Cypress
Ultramafic (=MacNab) Cypress Woodland	S3	Closed-Cone Pine-Cypress
Bigleaf Maple Forest and Woodland	S3	Douglas Fir, Montane Hardwood, Montane Hardwood-Conifer
Port Orford Cedar Forest and Woodland	S3.1	Douglas Fir
Douglas Fir – Incense Cedar Forest and Woodland	S3	Douglas Fir, Sierran Mixed Conifer
Douglas Fir – Tanoak Forest and Woodland	S3	Douglas Fir
Bush Chinquapin Chaparral	S3.3	Montane Chaparral
Sadler Oak or Deer Oak Brush Field	S3	Montane Chaparral
California Buckeye Grove	S3	Montane Hardwood
Tanoak Forest	S3.2	Montane Hardwood
Oregon White Oak Woodland and Forest	S3	Montane Hardwood
Incense Cedar Forest and Woodland	S3	Sierran Mixed Conifer
Red fir – White Fir	S3	Red Fir, White Fir
Rocky Mountain Maple Thicket	S3?	Montane Riparian
Mountain Alder Thicket	S3	Montane Riparian
Water Birch Thicket	S3	Montane Riparian
Red Osier Thicket	S3?	Montane Riparian
Oregon Ash Grove	S3.2	Montane Riparian
Torrent Sedge Patches	S3	Valley Foothill Riparian, Montane Riparian
Button Willow Thicket	S2	Valley Foothill Riparian
Fremont Cottonwood Forest and Woodland	S3.2	Valley Foothill Riparian; Montane Riparian
Black Cottonwood Forest and Woodland	S3	Valley Foothill Riparian, Montane Riparian
Needle Spike Rush Stand	S2	Annual Grassland
Water Foxtail Meadow	S3?	Perennial Grassland
Small-fruited Sedge Meadow	S2?	Perennial Grassland, Wet Meadow
California Oatgrass Meadow	S3	Perennial Grassland
Idaho Fescue Grassland	S3	Perennial Grassland
Ashy Ryegrass–Creeping Ryegrass Turf	S3	Perennial Grassland
Bluebunch Wheat Grass Grassland	S3	Perennial Grassland
Curly Blue Grass Grassland	S3?	Perennial Grassland

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

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

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

As described above, montane chaparral habitat is present within the project area. As required by SPR BIO-5, treatments implemented in chaparral will be designed to avoid type conversion of chaparral vegetation and to maintain chaparral habitat function. This will include identifying the chaparral vegetation types to the alliance level, determining appropriate treatment prescriptions based on current fire return interval departure and condition class

of the chaparral vegetation alliances onsite, retaining at least 35 percent relative final density of mature chaparral vegetation, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. The project proponent will demonstrate with substantial evidence that the habitat function of the specific chaparral vegetation types (i.e., alliances) present would be maintained or enhanced by the treatments applied. Ecological restoration treatments would not be implemented in stands of chaparral vegetation that are within their natural fire return interval unless the project proponent demonstrates with substantial evidence that the habitat function of the chaparral vegetation alliances would be improved.

The project proponent would avoid impacts on sensitive natural communities and oak woodlands by avoiding treatments in these communities. However, if avoiding treatment activities within identified sensitive natural communities or oak woodlands would preclude achieving treatment objectives, then Mitigation Measure BIO-3a would apply in these areas 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 treatment areas.

Conclusion

The potential for treatment activities to result in adverse effects on sensitive habitats, as described above, was examined in the PEIR. This impact on sensitive habitats is within the scope of the PEIR, 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 PEIR. 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 PEIR. 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.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," and under Impact BIO-1, Shasta Valley RCD proposes to revise requirements under SPR HYD-4 during broadcast burning activities to allow for igniting within potential WLPZs in meadow habitat using only propane torches. This constitutes a revision to the program description as analyzed in the PEIR.

Additionally, as described under Impact BIO-1, Shasta Valley RCD proposes to revise requirements under Mitigation Measure BIO-4 to directly ignite vegetation within meadows using only propane torches to better control fire behavior, which would require a revision from the restrictions in Mitigation Measure BIO-4 that prohibit direct ignition within wetland buffers. Without this revision to Mitigation Measure BIO-4, the objective to conduct prescribed burning in meadows could not be achieved. See Section 2.1.1, "Treatment Types" for more information regarding the importance of conducting broadcast burning in meadow habitats to achieve the restoration goals of the project.

Proposed revisions to SPR HYD-4 and Mitigation Measure BIO-4 could result in impacts on sensitive natural communities potentially present in meadow habitats; however, the project proponent would still be required to implement SPRs and mitigation measures to reduce impacts on these resources within meadow habitats. Several sensitive natural communities that are associated with annual or perennial grassland have potential to occur in the project area and could be present within meadow habitats. If these sensitive natural communities are present in WLPZs or wetland buffers, then ignition in these areas could result in loss of these communities. SPR BIO-3,

Mitigation Measure BIO-3a, and Mitigation Measure BIO-3b would require identification of sensitive natural communities through focused surveys, avoidance of identified sensitive natural communities, demonstration that habitat function would be maintained if sensitive natural communities cannot be feasibly avoided, or compensation for unavoidable loss of sensitive natural communities. Therefore, proposed revisions in SPR HYD-4 and Mitigation Measure BIO-4, specifically for broadcast burning in meadows, would not result in a substantially more significant effect on sensitive natural communities than what was covered in the PEIR. The text revisions to SPR HYD-4 and Mitigation Measure BIO-4 are shown in underline and strikethrough in the MMRP (Attachment A).

Biological resource SPRs that apply to project impacts under Impact BIO-3 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-5, SPR BIO-6, SPR BIO-9, and SPR 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. As explained above, impacts on riparian habitat and sensitive natural communities resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

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 PEIR.

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, many different types of aquatic habitat were observed, including the Sacramento River, creeks of various sizes, a freshwater pond, and Lake Siskiyou. Seasonal wetlands, meadows, and seeps were also observed during the survey, including Mills Meadow in the northern portion of the project area. CAL FIRE's Fire and Resource Assessment Program (FRAP) vegetation data for the project area includes 460.2 acres of lacustrine habitat (i.e., reservoirs, lakes, ponds), 9.5 acres of montane riparian habitat, 5.3 acres of valley foothill riparian, and 832 acres of wet meadow habitat (Table 4.5-1). The National Wetlands Inventory classifies the project area as having 419.4 acres lake habitat, 99.3 acres riverine, 37.6 acres freshwater pond, 339.5 acres freshwater forested/shrub wetland, and 1,095.9 acres freshwater emergent wetland (USFWS 2021). FRAP vegetation data and National Wetland Inventory data are sourced using different methods, which accounts for slight differences in acreages. While these acreages likely overlap significantly, totals for both sources are provided here to provide a full picture of aquatic habitat potentially present in the project area.

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

Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps. Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of these features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, and seeps; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). These buffers will generally be no-disturbance buffers; however, within meadow habitats, ignition for broadcast burning using only propane torches may occur, including within wetland buffers. 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., western pond turtle, Cascades frog, foothill yellow-legged frog, Pacific tailed frog; see Impact BIO-2).

The potential for treatment activities to adversely affect state or federally protected wetlands was examined in the PEIR. This impact on wetlands is within the scope of the PEIR, 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 PEIR. 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 PEIR. 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.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," and under Impact BIO-1, Shasta Valley RCD proposes to revise requirements under SPR HYD-4 during broadcast burning activities to allow for igniting within potential WLPZs and wetland buffers in meadow habitat using only propane torches. This constitutes a revision to the program description as analyzed in the PEIR.

Additionally, as described under Impact BIO-1, Shasta Valley RCD proposes to revise requirements under Mitigation Measure BIO-4 to directly ignite vegetation within meadows using only propane torches to better control fire behavior, which would require a revision from the restrictions in Mitigation Measure BIO-4 that prohibit direct ignition within wetland buffers. Without this revision to Mitigation Measure BIO-4, the objective to conduct prescribed burning in meadows could not be achieved. See Section 2.1.1, "Treatment Types" for more information regarding the importance of conducting broadcast burning in meadow habitats to achieve the restoration goals of the project.

Proposed revisions to SPR HYD-4 and Mitigation Measure BIO-4 could result in impacts on state or federally protected wetlands if present within meadows; however, the project proponent would still be required to implement SPRs and mitigation measures to reduce impacts on these resources within meadow habitats. Most of the meadow habitat in the project area is fresh emergent wetland habitat, which may qualify as state or federally protected wetlands. Wetland buffers required under Mitigation Measure BIO-4 are intended to prevent direct and indirect impacts on wetlands including fill, disruption of hydrology, adverse effects on water quality, and removal of wetland vegetation. As described above, ignition within wetland buffers in meadow habitats using only propane torches would not result in ground disturbance, erosion, or introduction of chemicals into wetlands. Therefore, proposed revisions in SPR HYD-4 and Mitigation Measure BIO-4, specifically for broadcast burning in meadows, would not result in a new or substantially more severe significant effect on wetlands not addressed in the PEIR. The text revisions to SPR HYD-4 and Mitigation Measure BIO-4 are shown in underline and strikethrough in the MMRP (Attachment A).

Biological resource SPRs that apply to project impacts under Impact BIO-4 are SPR BIO-1, SPR HYD-1, SPR HYD-4, and SPR HYD-5. 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT BIO-5

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

Based on review and survey of project-specific biological resources (SPR BIO-1), mapped essential connectivity areas are located in the western portion of the project area connecting natural habitats north and south of the project area and connecting natural habitats west of the project area to natural habitats associated with Mt. Shasta east of the project area (CDFW 2022b). Natural landscape blocks surrounding the project area are largely associated with forested habitat in Shasta-Trinity National Forest to the west and south and Mt. Shasta to the east (CDFW 2022b). Portions of the project area not included in essential connectivity areas or natural landscape blocks contain natural habitat and are likely used as wildlife movement corridors to some degree, especially streams and associated riparian corridors.

WUI fuel reduction treatments would occur near existing roads and residences. The size and traffic level of the roads and level of development within residential areas varies; however, these areas generally are subject to ongoing disturbances (e.g., vehicle traffic, human activity) and some level of wildlife habitat fragmentation due to historic urban, residential, and agricultural development of the region. While habitat directly adjacent to development would not be optimal habitat, wildlife may move through these areas, or use some habitats for cover or as nursery sites, especially in relatively undeveloped areas. Other treatments would include shaded fuel breaks that would retain some forest canopy, and ecological restoration treatments designed to improve forest health.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented, which would limit the extent of treatment activities within riparian habitat (e.g., no mechanical treatment, retention of at least 75 percent surface cover) that would likely function as a wildlife movement corridor. SPR BIO-12 would be implemented for treatments that would occur during the nesting bird season and would result in identification and avoidance of any common bird nursery sites (e.g., heron rookeries, egret rookeries). Most live trees (e.g., conifers, hardwoods, except knobcone pine and juniper) larger than 12 inches would be retained and pursuant to SPR BIO-3, SPR BIO-4, and SPR BIO-5, treatments in sensitive natural communities, riparian habitat, and chaparral habitat, respectively, would be designed to maintain habitat function of these communities. Additionally, implementation of proposed treatments would not result in any conversion of land cover or create new barriers to wildlife movements within (locally) or across (regionally) the project area. With implementation of SPRs, habitat function within the project area would be maintained and there would not be a substantial change in the existing conditions that facilitate wildlife movement in the project area.

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 biologist or RPF.

The potential for treatment activities to result in adverse effects on wildlife movement corridors and nurseries was examined in the PEIR. This impact is within the scope of the PEIR, 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 extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. 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 PEIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, as described above, the potential impact on wildlife movement corridors is also the same. Biological resource SPRs that apply to project impacts under Impact BIO-5 are SPR BIO-1, SPR BIO-4. SPR BIO-5, SPR BIO-10, and SPR HYD-4. The biological resource mitigation measure that applies to project impacts under Impact BIO-5 is Mitigation Measure BIO-5. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT BIO-6

Initial treatment and maintenance treatments could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife, including nesting birds, because nesting habitat suitable for birds is present throughout the project area. Treatment activities, including mechanical treatments, manual treatments, prescribed burning, and herbicide application, conducted during the nesting bird season (February 1–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, personnel) potentially resulting in abandonment and loss of eggs or chicks.

SPR BIO-12 would apply, and for treatments implemented during the nesting bird season, a survey for common nesting birds will be conducted within the project area by a qualified RPF or biologist before treatment activities. If no active bird nests are observed during focused surveys, then additional mitigation would not be required. If active nests of common birds or raptors are observed during focused surveys, disturbance to the nests will 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 treatment activities to result in adverse effects on these resources was examined in the PEIR. The potential for adverse effects on common wildlife, including nesting birds, is within the scope of the PEIR, 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 extent of expected disturbance as a result of implementing treatment activities would be consistent with those analyzed in the PEIR. 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 PEIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, as described above, the potential impact on common wildlife, including nesting birds is also the same. Biological resource SPRs that apply to project impacts under Impact BIO-6 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-5, and SPR BIO-12. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT BIO-7

The only applicable local ordinance relevant to biological resources is the Siskiyou County General Plan Conservation Element (Siskiyou County 1973). The Siskiyou County General Plan Conservation Element includes recommendations to conserve fish and wildlife habitat and natural vegetation; however, it does not include specific policies that would be applicable to the project. The County has not adopted or implemented a tree preservation or mitigation ordinance. Thus, implementation of treatment activities would not conflict with local ordinances.

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

IMPACT BIO-8

Implementation of the proposed vegetation treatment and maintenance treatments would not result in a conflict with adopted habitat conservation plans (HCP) or natural community conservation plans (NCCP), because the project area is not within the plan area of any adopted HCP or NCCP. 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 PEIR. However, within the project area boundary, the existing regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential for conflicts with an adopted HCP or NCCP is also the same. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW BIOLOGICAL RESOURCE IMPACTS

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR

(refer to Section 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final PEIR).Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR 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 biological resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the PEIR. Impacts resulting from proposed revisions to SPRs and mitigation measures are consistent with the impacts analyzed in the program, as explained under relevant impacts above. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPRs and mitigation measures would not give rise to any new significant impacts not addressed in the PEIR. Therefore, no new impact related to biological resources would occur that is not covered in the PEIR.

4.6 GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	LTS	Impact GEO-1, pp. 3.7-26 – 3.7-29	Yes	GEO-1 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-1 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 PEIR for this impact.

New Geology, Soils, Paleontology, and Mineral Resource Impacts: Would the treatment result in other impacts to geology, soils, paleontology, and mineral resources that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
N/A	☐	☐	☐

Discussion

The project area is located at the intersection between the Klamath Mountains and the Cascade Range geomorphic provinces (CGS 2002). The project is generally split vertically, roughly down the center from north to south, with the eastern half falling into the Cascades province, and the western falling into the Klamath Mountains Province. Both the Klamath and Cascades province are characterized by areas of high topographic relief, with steep, rugged slopes, and deeply incised rivers. However, in the project area, alluvial terraces formed from glacial and riparian action have developed a gradual hilly landscape with steeper slopes concentrated in the west.

The Cascades province formed through volcanic activity as part of the Pacific Ring of Fire. The western part of the Cascades range is composed of eroded Oligocene to Pliocene volcanic and volcaniclastic rocks overlaying older Upper Cretaceous and Eocene sedimentary rocks (du Bray et al. 2006). Subduction of oceanic rock and serpentinite formed the low to high-grade metamorphosed sedimentary rocks with intrusive plutonic rocks that characterize the Klamath Mountain province today. The project area falls in a relatively geographically young area of Klamath Mountain deposits, which formed from Devonian to Late Jurassic Periods (416 to 190 million years ago) (CGS 2015). Within the project area, ultramafic rock and soils from weathered serpentinitic rock (Dubakella-Ipish complex, 30 to 50 percent slopes) is present along the western border of the project area, with some serpentine soils observed in the central western portion of the project area. Dubakella soils, which are formed from weathered serpentinitic minerals, are mapped in the northwest corner of the project area (NRCS 2022). Soils throughout the project footprint are

variable, and most are formed from alluvium and glacial outwash from volcanic rock, ash, and igneous parent material. Serpentine soils were observed during the reconnaissance-level survey for biological resources in the western project area outside of the USGS-mapped Dubakella soil areas, indicating that the geologic activity in the area has influenced soil types in recent years, and serpentine soils may be found elsewhere along the western edge of the project. Slopes are gradual in the alluvial plains along the eastern border of the project area (generally 0 to 30 percent), growing increasingly steep in the west (generally up to 75 percent).

IMPACT GEO-1

Vegetation treatments would include ecological restoration, WUI fuel reduction, and fuel breaks through use of pile burning, broadcast burning, mechanical treatment, manual treatment, and targeted ground application of herbicides. These activities could result in varying levels of soil disturbance and have the potential to increase the rates of erosion and loss of topsoil. The potential for these treatment activities to cause substantial erosion or loss of topsoil was examined in the PEIR. Mechanical treatments using heavy machinery are the most likely to cause soil disturbance that could lead to substantial erosion or loss of topsoil, especially in areas that contain steep slopes, or in areas that previously experienced fire. This impact is within the scope of the PEIR because the soil characteristics of the project area are essentially the same within and outside the CalVTP treatable landscape and the use and type of equipment, extent of vegetation removal, and intensity of prescribed burning are consistent with those analyzed in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, Shasta Valley RCD would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3.

For these reasons, proposed revisions to SPR AQ-3 would not result in greater soil erosion, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect related to soil erosion than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the potential impact related to soil erosion is also the same, as described above. SPRs applicable to this impact are GEO-1 through GEO-8, AQ-3, AQ-4, HYD-3, and HYD-4. As explained above, impacts related to soil erosion resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

IMPACT GEO-2

Treatment activities would include pile burning, broadcast burning, mechanical treatment, manual treatment, and targeted use of herbicides. No areas with known landslide activity are identified within the project area (USGS 2022). However, given the variable topography in some of the treatment areas, the remoteness of the area, steep terrain, and wet winter conditions, there is the potential for landslides in the project area. The potential for treatment activities to increase landslide risk was examined in the PEIR. This impact is within the scope of the PEIR because the extent of vegetation removal, intensity of prescribed burning, and characteristics of the geographical terrain are consistent with those analyzed in the PEIR. 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 PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development

committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, Shasta Valley RCD would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3.

For these reasons, proposed revisions to SPR AQ-3 would not result in an increased risk of landslide by removing root systems that stabilize slopes, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect related to landslide risk than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the range of slopes and landslide conditions present in the areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the potential impact related to landslide risk is also the same, as described above. SPRs applicable to this impact are GEO-1, GEO-3, GEO-4, GEO-7, GEO-8, and AQ-3. As explained above, impacts related to landslide risk resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

NEW GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.7.1, "Environmental Setting," and Section 3.7.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR 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 PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to geology, soils, paleontology, or mineral resources would occur that is not covered in the PEIR.

4.7 GREENHOUSE GAS EMISSIONS

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs	LTS	Impact GHG-1, pp. 3.8-10 – 3.8-11	Yes	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 PEIR for this impact; None = there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

New GHG Emissions Impacts: Would the treatment result in other impacts to GHG emissions that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

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 PEIR. This impact is within the scope of the PEIR because the proposed activities, as well as the associated equipment, duration of use, and resultant GHG emissions, are consistent with those analyzed in the PEIR. 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 PEIR. However, within the boundary of the project area, the same plans, policies, and regulations adopted to reduce GHG emissions apply in the areas outside the treatable landscape, as well as areas within the treatable landscape; therefore, the GHG impact is also the same, as described above. SPR GHG-1 is not applicable to the proposed project; the Shasta Valley RCD 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

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 PEIR. This impact is within the scope of the PEIR 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 PEIR. Mitigation Measure GHG-2 would be implemented and would reduce GHG emissions associated with the prescribed burning. However, emissions generated by the treatment would still contribute to the annual emissions generated by the CalVTP, and this impact would remain significant and unavoidable, consistent with, and for the same reasons described in, the PEIR. SPR AQ-3 is also applicable to this treatment and will contain the description of feasible GHG reduction techniques implemented per Mitigation Measure GHG-2.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include smoke management plans and other elements that would meet the same standards as required under CAL FIRE burn plans.

For these reasons, proposed revisions to SPR AQ-3 would not result in greater generation of GHG emissions, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on GHG emissions than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the climate conditions present in the areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the GHG impact is also the same, as described above. The SPR applicable to this treatment project is AQ-3. As explained above, impacts on GHG emissions resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

NEW IMPACTS RELATED TO GHG EMISSIONS

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

4.8 ENERGY RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact ENG-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy	LTS	Impact ENG-1, pp. 3.9-7 – 3.9-8	Yes	NA	NA	LTS	No	Yes

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

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

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 PEIR. The consumption of energy during implementation of the treatment project is within the scope of the PEIR because the types of activities, as well as the associated equipment and duration of proposed use, are consistent with those analyzed in the PEIR. 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 PEIR. 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 PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

NEW ENERGY RESOURCE IMPACTS

The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (refer to Section 3.9.1, "Regulatory Setting," and Section 3.9.2, "Environmental Setting," in Volume II of the Final PEIR). Including land outside the treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the PEIR. No changed circumstances are present, and the inclusion of areas outside 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 PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact HAZ-1, pp. 3.10-14 – 3.10-15	Yes	HAZ-1	NA	LTS	No	Yes
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2, pp. 3.10-15 – 3.10-18	Yes	HAZ-5 through HAZ-9	NA	LTS	No	Yes
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	LTSM	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	HAZ-3	NA	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 PEIR 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 PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT HAZ-1

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

IMPACT HAZ-2

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

IMPACT HAZ-3

Initial and maintenance treatments would include soil disturbance and prescribed burning, which could expose workers or the environment to hazardous materials if a contaminated site is present within the project area. The potential for workers implementing treatment activities to encounter contamination that could expose them or the environment to hazardous materials was examined in the PEIR. This impact was identified as potentially significant in the PEIR because hazardous materials sites could be present within treatment sites, and soil disturbance or burning in those areas could expose people or the environment to hazards. As directed by Mitigation Measure HAZ-3, database searches for hazardous materials sites within the project area have been conducted, and no hazardous materials sites were identified within 0.25 mile of the project area (DTSC 2021; CalEPA 2021; SWRCB 2021). Therefore, this impact is less than significant. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the potential to encounter hazardous materials and the regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the hazardous materials impact is also the same, as described above. No SPRs are applicable to this impact, and no additional mitigation is required. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW HAZARDOUS MATERIALS, PUBLIC HEALTH, AND SAFETY IMPACTS

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

4.10 HYDROLOGY AND WATER QUALITY

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

Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
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 PEIR for this impact.

New Hydrology and Water Quality Impacts: Would the treatment result in other impacts to hydrology and water quality that are not evaluated in the CalVTP PEIR?	☐ 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 Sacramento River and North Coast hydrologic regions, and within the Upper Sacramento Watershed. Hydrologic features in the project vicinity include Lake Siskiyou, North, Middle, and South Forks of the Sacramento River, Shasta River, Big Spring Creek, Dale Creek, Wagon Creek, Deer Creek, Big Canyon Creek, and Eddy Creek. Wagon Creek and Big Springs Creek flow through the project area, as well as the Sacramento River, Scotts Camp Creek, and Castle Lake Creek, which flow into Lake Siskiyou. Slopes within the project area drain into Wagon Creek, Sacramento River, and Lake Siskiyou.

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

IMPACT HYD-1

Initial and maintenance treatments would include prescribed burning. Ash and debris from treatment areas could be washed by runoff into adjacent drainages and streams. Although most treatment areas would avoid streams and watercourses, WLPZs ranging from 50 to 150 feet will be implemented for Class I and Class II streams that are within treatment areas pursuant to SPR HYD-4. Within meadow habitats, ignition for broadcast burning using only propane torches may occur, including within WLPZs. The potential for prescribed burning activities to cause runoff and violate water quality regulations or degrade water quality was examined in the PEIR. This impact is within the scope of the PEIR because the use of low-intensity prescribed burns and associated impacts to water quality are consistent with those analyzed in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," and under impact BIO-1, Shasta Valley RCD proposes to revise requirements under SPR HYD-4 during broadcast burning activities to allow for igniting within potential WLPZs in meadow habitat using only propane torches. Propane torches would avoid deposition of fuel residue to soil or water that is typical of other accelerants where fuel residue may cause an environmental impact

(NWCG 2019). Uncombusted liquid propane quickly vaporizes rather than remaining in the soil or on water; thus, propane torches would not result in introduction of harmful chemicals to water or reduction in water quality. Because the meadows in the project area are relatively flat, ignition within WLPZs would not result in significant sedimentation from exposed soil in burned areas that could adversely affect water quality.

For these reasons, proposed revisions to SPR HYD-4 would not 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. Therefore, revisions to SPR HYD-4, specifically for broadcast burning in meadows, would not result in a substantially more significant effect on hydrology and water quality than what was covered in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, Shasta Valley RCD would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3.

For these reasons, proposed revisions to SPR AQ-3 would not 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. Therefore, revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on hydrology and water quality than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also the same, as described above. SPRs applicable to this impact are HYD-4, BIO-4, BIO-5, GEO-4, GEO-6, and AQ-3. As explained above, impacts on water quality resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

IMPACT HYD-2

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

IMPACT HYD-3

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

IMPACT HYD-4

Initial and maintenance treatments would include the use of herbicides to manage resprouting native tree species (e.g., tanoak) within the treatment area. Herbicide application would be limited to ground-based methods, such as a using targeted spray from a backpack or reservoir carried by a UTV, or painting herbicide onto cut stems. All herbicide application would comply with EPA and California Department of Pesticide Regulation label standards. The potential for the use of herbicides to violate water quality regulations or degrade water quality was examined in the PEIR. This impact is within the scope of the PEIR because the use of herbicides to remove vegetation and associated impacts to water quality are consistent with those analyzed in the PEIR. 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 PEIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from use of herbicides is also the same, as described above. SPRs applicable to this impact are HYD-5, BIO-4, HAZ-5, and HAZ-7. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT HYD-5

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. The potential for treatment activities to substantially alter the existing drainage pattern of a project site was examined in the PEIR. This impact to site drainage is within the scope of the PEIR because the types of treatments and treatment intensity are consistent with those analyzed in the PEIR. 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 PEIR. 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW HYDROLOGY AND WATER QUALITY IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.11.1, "Environmental Setting," and Section 3.11.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR 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 PEIR. Impacts resulting from proposed revisions to SPRs and mitigation measures are consistent with the impacts analyzed in the program, as explained under relevant impacts above. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPRs and mitigation measures would not give rise to any new significant impacts. Therefore, no new impact related to hydrology and water quality would occur.

4.11 LAND USE AND PLANNING, POPULATION AND HOUSING

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

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

New Land Use and Planning, Population and Housing Impacts: Would the treatment result in other impacts to land use and planning, population and housing that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT LU-1

Initial treatment and treatment maintenance activities would occur on property owned by Siskiyou County, non-governmental organizations, commercial timber companies, and private entities. As noted in Section 4.12, "Noise," below, treatment activities would take place during daytime hours consistent with the Siskiyou County General Plan. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using equipment would be typically be limited to 7:00 a.m. to 6:00 p.m. Monday through Friday, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. 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 PEIR. This impact is within the scope of the PEIR because the treatment types and activities are consistent with those analyzed in the PEIR. No conflict would occur because the project proponent would adhere to SPR AD-3. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the PEIR. However, land uses in the project area are essentially the same within and outside the treatable landscape; therefore, the land use impact is also the same, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

IMPACT LU-2

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

NEW LAND USE AND PLANNING, POPULATION AND HOUSING IMPACTS

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

4.12 NOISE

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1, pp. 3.13-9 – 3.13-12; Appendix NOI-1	Yes	AD-3 NOI-1 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 PEIR for this impact.

New Noise Impacts: Would the treatment result in other noise-related impacts that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT NOI-1

Initial and maintenance treatments would require heavy, noise-generating equipment. Manual, mechanical, and prescribed burning treatment activities as well as chipping/mastication and pile burning occurring adjacent to sensitive land uses could temporarily expose those receptors to noise levels that exceed local standards. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the PEIR. This impact is within the scope of the PEIR because the number and types of equipment proposed, and equipment use being temporary and sporadic, are consistent with the assumptions analyzed in the PEIR. The proposed treatments would not require the use of helicopters, which was the loudest type of equipment evaluated in the PEIR.

Siskiyou County does not have a noise ordinance or policy restricting the time of day when noise-generating activity can occur. In the absence of standards for construction noise, the County's land use/noise compatibility interior standards would be applied, which limit interior noise to 45 decibels (dB) L_{dn} for noise sensitive receptors. L_{dn} is the day-night average sound level and is used to describe the cumulative noise exposure during an average annual day. As discussed in the PEIR, noise levels generated by individual equipment range from 77 to 87.9 dB at 50 feet from the noise source, with the loudest type of equipment being a chainsaw. Though multiple pieces of equipment would be operated simultaneously to implement a treatment they would typically be spread out (i.e., usually more than 100 feet apart) rather than operating next to each other. This is particularly true of larger, heavy-duty off-road equipment such as masticators, chippers, bulldozers, skid steers, and excavators. Noise-generating equipment would be used

intermittently between 7:00 a.m. and 6:00 p.m. during treatment. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using noise-generating equipment would be limited to 7:00 a.m. to 6:00 p.m. Monday through Friday, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours.

Although operation of equipment would temporarily and intermittently generate elevated noise during daytime hours, the interior noise standard is an average that considers daytime and nighttime noise levels, and when averaged with the noise levels during the quiet nighttime hours, it is reasonably expected that noise generated during treatments would not exceed the local L_{dn} threshold. In addition, treatments would primarily occur outside of the 100-foot defensible space requirement described in PRC 4291 and therefore, most treatments would not occur within 100 feet of sensitive receptors. The equipment noise levels discussed above are at 50 feet. Therefore, there would typically be additional attenuation for distance, vegetation, and building materials that would result in interior noise levels being lower than the 77 to 87.9 dB levels estimated for equipment. Treatments would also be dispersed throughout the 12,966-acre project area so that short-term noise increases at any one sensitive receptor would be limited. SPRs AD-3 and NOI-1 through NOI-5 are applicable to this treatment. With implementation of SPR AD-3, noise levels associated with vegetation treatment activities under the CalVTP would not exceed local land use/noise compatibility standards and noise exposure attributed to vegetation treatment activities under the CalVTP would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of local standards. For any sensitive receptors that are within 1,500 feet of a treatment area, SPR NOI-6 would also apply. There are several schools and one hospital within 1,500 feet of the proposed project area. In addition, there are residences scattered throughout the project area that could be within 1,500 feet of proposed treatments. 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 PEIR. However, within the boundary of the project area, the exposure potential to any sensitive receptors present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the noise impact is also the same, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT NOI-2

Initial and maintenance treatments would involve large trucks hauling heavy equipment to the project area. These haul truck trips would be dispersed on area roadways providing access to the project area including, but not limited to, I-5, Abrams Lake Road, Hatchery Lane, North Old Stage Road, W A Barr Road, and North Shore Road. Vehicle traffic on area highways would not 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 PEIR. This impact is within the scope of the PEIR because the number and types of equipment proposed are consistent with those analyzed in the PEIR. 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 PEIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the noise impact is also the same, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW NOISE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.13.1, "Environmental Setting," and Section 3.13.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the proposed project area constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to noise that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to noise would occur.

4.13 RECREATION

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	LTS	Impact REC-1, pp. 3.14-6 – 3.14-7	Yes	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 PEIR for this impact.

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

Discussion

Recreational facilities are present within the project area, such as Lake Siskiyou, the Elsa Rupp Nature Study Area, and Larry Wehmeyer Environmental Education Area. Recreation areas and trails are present immediately west of the treatment areas within the Shasta-Trinity National Forest.

IMPACT REC-1

Vegetation treatment activities have the potential to disrupt recreational activities within the project area through temporary trail closures during active treatments and by degrading the experience of recreationists through the creation of noise, dust, degradation of scenic views, or increased traffic. The potential for vegetation treatment activities to disrupt recreation activities was examined in the PEIR. 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 PEIR. However, the availability of recreational resources within the project area is essentially the same within and outside the treatable landscape; therefore, the impact to recreation is also the same, as described above. The SPR applicable to this treatment is REC-1. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

NEW RECREATION IMPACTS

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.14.1, "Environmental Setting," and Section 3.14.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land in the proposed project area that is outside the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental conditions pertinent to recreation that are present in the areas outside the treatable landscape are essentially the same as those

within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. The SPR applicable to this impact is REC-1. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to recreation would occur.

4.14 TRANSPORTATION

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	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 PEIR for this impact.

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

Discussion

IMPACT TRAN-1

Initial and maintenance treatments would temporarily increase vehicular traffic along roadways throughout the project area, including Interstate 5, SR 89, 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 PEIR. The proposed treatments would be short term, and temporary increases in traffic related to treatments are within the scope of the PEIR 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 PEIR. 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 PEIR. However, within the boundary of the project area, the existing transportation conditions (e.g., roadways and road use) present in the areas outside the treatable landscape are

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

IMPACT TRAN-2

Initial and maintenance treatments 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 PEIR. This impact is within the scope of the activities and impacts addressed in the PEIR because the burn duration is consistent with that analyzed in the PEIR. 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 PEIR. However, within the boundary of the project area, the existing transportation conditions (e.g., roadways and road use) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above. SPRs applicable to this impact are AD-3, HYD-2 and TRAN-1. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT TRAN-3

Treatments could temporarily increase vehicle miles traveled (VMT) above baseline conditions because the proposed project would require vehicle trips to transport crew members and equipment to the treatment areas. This impact was identified as potentially significant and unavoidable in the PEIR because implementation of the CalVTP would result in a net increase in VMT. Manual and mechanical treatments and prescribed burning under the proposed project would typically require between 1 and 50 crew members with up to four crews for each treatment type, with up to three treatments that would be implemented simultaneously. The potential for an increase in VMT on affected roadways during implementation of the treatment project was examined in the PEIR. This impact is within the scope of the activities and impacts addressed in the PEIR because the size and number of crews is consistent with that analyzed in the PEIR. The increase in vehicle trips would be temporary and dispersed over multiple roadways. A temporary increase in VMT is within the scope of the activities and impacts addressed in the PEIR because the number and duration of increased vehicle trips are consistent with that analyzed in the PEIR. While carpooling would be encouraged under Mitigation Measure AQ-1, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. The proposed project would contribute to the cumulative increase in VMT attributable to implementation of the CalVTP. For these reasons, and as explained in the PEIR, this impact would remain significant and unavoidable. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW IMPACTS ON TRANSPORTATION

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.15.1, "Environmental Setting," and Section 3.15.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing

environmental and regulatory conditions pertinent to transportation that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable 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 PEIR			Project-Specific Checklist					
Environmental Impact Covered in the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	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 PEIR?	Is this Impact within the Scope of the PEIR?
Would the project:								
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	LTS	Impact UTIL-1, p. 3.16-9	Yes	NA	NA	LTS	No	Yes
Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	SU	Impact UTIL-2, pp. 3.16-10 – 3.16-12	Yes	UTIL-1	NA	SU	No	Yes
Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	LTS	Impact UTIL-2, p. 3.16-12	Yes	UTIL-1	NA	LTS	No	Yes

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

New Public Services, Utilities and Service System Impacts: Would the treatment result in other impacts to public services, utilities and service systems that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT UTIL-1

Initial and maintenance treatments would include prescribed burning, which would require an on-site water supply (water 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 PEIR. This impact is within the scope of the activities and impacts addressed in the PEIR 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 PEIR. 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 PEIR. 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 PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT UTIL-2

Initial and maintenance treatments would generate biomass within the treatment areas. Biomass generated by mechanical and manual treatments would be disposed of with pile burning or mulching or lopping and scattering, or hauling biomass offsite in areas where material cannot safely be burned. Invasive plant and noxious weed biomass would also be treated onsite (e.g., prescribed burning), when possible, to eliminate seed and propagules; however, invasive plants and noxious weeds will not be chipped and spread, scattered, or mulched onsite. If invasive plant biomass cannot be treated onsite, there is the potential for a small amount to be disposed of offsite at an appropriate waste collection facility. This impact was identified as potentially significant and unavoidable in the PEIR because biomass hauled off-site could exceed the capacity of existing infrastructure for handling biomass. For the proposed treatment project, only 10 percent of the biomass would be hauled off-site. While the amount of biomass generated would not exceed the capacity of existing local infrastructure in Siskiyou County, because the project would generate biomass needing offsite disposal, it would contribute to the environmental significance conclusion in the PEIR; therefore, for purposes of CEQA compliance, this PSA/Addendum notes the impact as potentially significant and unavoidable. SPR UTIL-1 would be applicable to the proposed treatments for biomass that would be hauled off-site. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, conditions related to biomass in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above.

IMPACT UTIL-3

As discussed above, initial and maintenance treatments would generate biomass. Biomass generated by mechanical and manual treatments would be disposed of with pile burning or mulching or lopping and scattering, or hauling biomass offsite in areas where material cannot safely be burned. Invasive plant and noxious weed biomass would also be treated onsite, when possible. If invasive plant biomass cannot be treated onsite, there is the potential for up to 10 percent to be disposed of offsite at an appropriate waste collection facility. If offsite disposal is needed, Shasta Valley RCD would comply with all federal, state, and local management and reduction goals, statutes, and regulations related to solid waste. Compliance with reduction goals, statutes, and regulations related to solid waste was examined in the PEIR. This impact is within the scope of the activities and impacts addressed in the PEIR because the type and amount of biomass that may need to be hauled off-site are consistent with those analyzed in the PEIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the biomass conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above. SPR UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

NEW IMPACTS ON PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

4.16 WILDFIRE

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

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

New Wildfire Impacts: Would the treatment result in other impacts related to wildfire that are not evaluated in the CalVTP PEIR?	☐ Yes	☒ No	If yes, complete row(s) below and discussion
	Potentially Significant	**Less Than Significant with Mitigation Incorporated**	**Less than Significant**
	☐	☐	☐

Discussion

IMPACT WIL-1

Proposed vegetation treatment activities are mechanical, manual, herbicide application, and prescribed burn treatments. 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 PEIR, 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 broadcast burn, fire containment lines would be established by clearing vegetation surrounding the designated burn area to help prevent the accidental escape of fire. Water containers and safety equipment would be staged on site as necessary.

The potential increase in exposure to wildfire during implementation of treatments was examined in the PEIR. Increased wildfire risk associated with the use of heavy equipment in vegetated areas and with prescribed burns is within the scope of the PEIR 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 PEIR. 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 PEIR. However, within the boundary of the project area, the wildfire risk is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. SPRs

applicable to this impact are AD-3, AQ-3, HAZ-2, HAZ-3, and HAZ-4. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

IMPACT WIL-2

Vegetation treatment types would include mechanical and manual vegetation treatment, herbicide application, and prescribed burning, which could exacerbate fire risk as described in Impact WIL-1 above. The potential for post-fire landslides and flooding was evaluated in the PEIR. The potential exposure of people or structures to post-fire landslides and flooding are within the scope of the activities and impacts covered in the PEIR because the equipment types and duration of treatments, and methods of prescribed burn implementation are consistent with those analyzed in the PEIR.

As described above under Section 1.1.3, "Purpose of the PSA/Addendum," Shasta Valley RCD proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by Shasta Valley RCD would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, Shasta Valley RCD would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3.

For these reasons, proposed revisions to SPR AQ-3 would not result in an increased risk of post-fire landslides and flooding, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect related to post-fire landslide and flooding risk than what was covered in the PEIR.

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 PEIR. However, within the boundary of the project area, the wildfire risk of the project area is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. SPRs applicable to this impact are AQ-3, GEO-3 through GEO-5, and GEO-8. Although most mechanical treatments would occur from existing roads or skid trails or on flat to moderate slopes, SPR GEO-8 would apply if a treatment area contains steep slopes. Furthermore, because the treatments reduce wildfire risk, they would also decrease post wildfire landslide and flooding risk in areas that could otherwise burn in a high-severity wildfire without treatment. As explained above, impacts related to wildfire risk resulting from the proposed project, including proposed revisions to the project description, compared to the PEIR program description, would not constitute new or substantially more severe significant impact than what was covered in the PEIR.

NEW IMPACTS ON WILDFIRE

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

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