THE CALIFORNIA VEGETATION TREATMENT PROGRAM ENVIRONMENTAL CHECKLIST

Project-specific Analysis/Addendum to the Program Environmental Impact Report

INTRODUCTION

The Angwin-Deer Park Wildfire Resilience Project (proposed project) entails the implementation of vegetation treatments on up to 5,190.9 acres of land in Napa County (Figure 1). The proposed treatment types (i.e., fuel breaks, wildland urban interface fuel reduction, ecological restoration) and the treatment activities (i.e., manual treatments, mechanical treatments, prescribed burning, herbicide application, prescribed herbivory) are consistent with those evaluated in the CalVTP PEIR. Maintenance treatments would involve the same vegetation treatment types and activities used in the initial treatments.

PROJECT OVERVIEW AND DOCUMENT PURPOSE

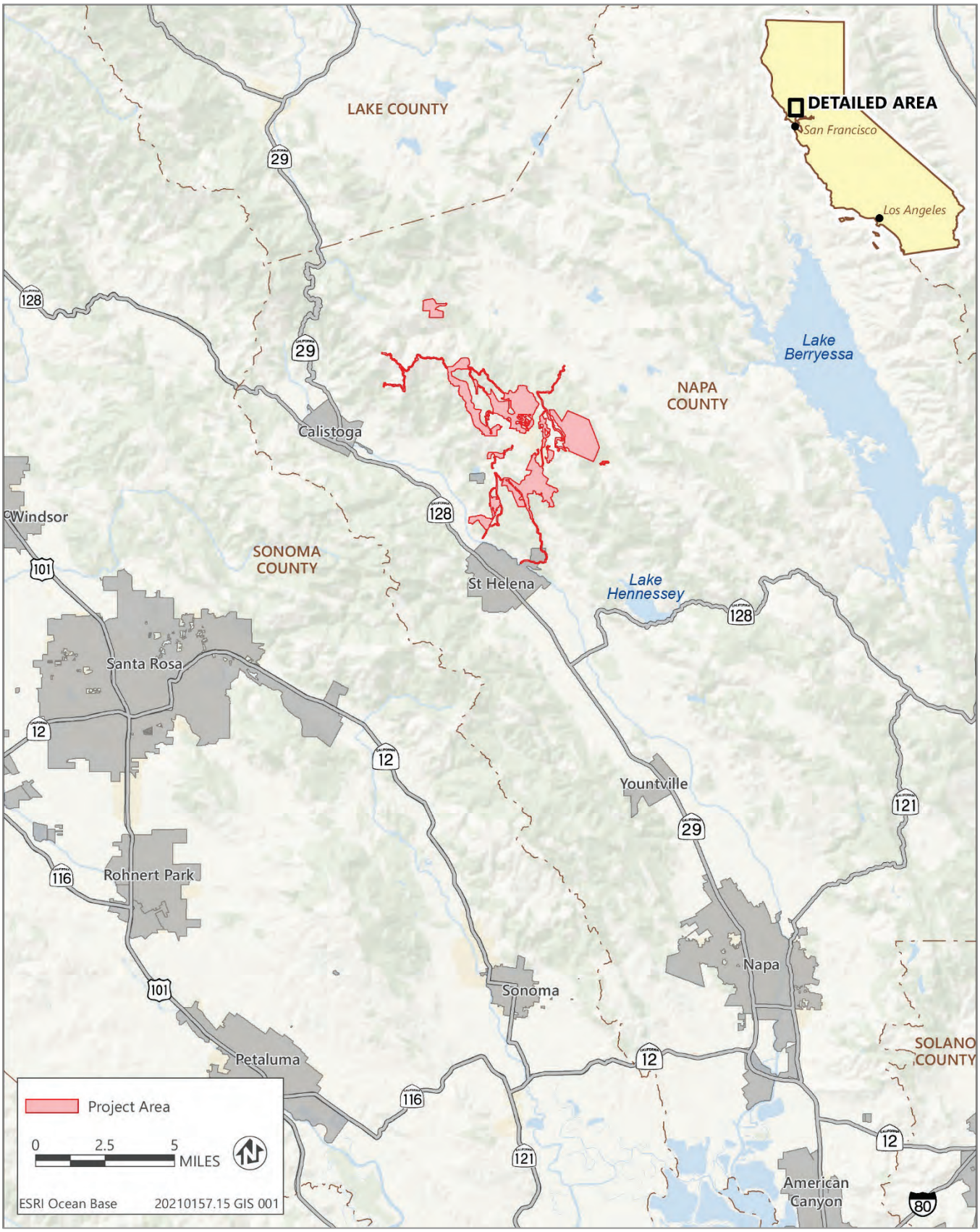
The California Board of Forestry and Fire Protection (Board) certified the Program Environmental Impact Report (Program EIR) for the California Vegetation Treatment Program (CalVTP) in December 2019. The Program EIR evaluates the potential environmental effects of implementing vegetation treatments throughout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

To help achieve the State's goals to increase the pace and scale of vegetation treatment for wildfire resilience, the Board is supporting the preparation of Project-Specific Analysis (PSA) documents to create a library of example projects that help guide State and local agencies in preparing their own PSAs under the CalVTP Program EIR, as well as to achieve CEQA compliance for the proposed project. The Board selected Napa County's Angwin-Deer Park Wildfire Resilience Project to be one of these example PSAs.

Roles

This document is being prepared to provide CEQA compliance for the implementation of vegetation treatments that require a discretionary action by a state or local agency.

The California Department of Forestry and Fire Prevention (CAL FIRE) is the lead agency under CEQA. CAL FIRE has provided grant funding to implement a portion of the initial treatments. This PSA/Addendum may be relied upon for CEQA compliance in the future by other agencies, acting in a lead or responsible agency role, with a discretionary approval pertaining to the activities and area covered herein, including for public funding through other sources or future grants. In this PSA/Addendum, The Napa Communities Firewise Foundation (NCFF), Land Trust of Napa County (LTNC), and Pacific Union College (PUC) are referred to as "implementing entities" reflecting their role(s) as lead implementer of treatments, land owner, and/or land manager.



Source: Data Received from NCFF in 2023.

Figure 1 Vicinity of the Angwin-Deer Park Wildfire Resilience Project

As defined in the CalVTP PEIR, the 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. The PEIR contemplated that the primary discretionary approval of the public agency project proponent would be implementing the treatments, as well as associated standard project requirements (SPRs) and mitigation measures. However, for this proposed project, CAL FIRE's discretionary approval is to provide forest health grant (FHG) funding; the implementing entities will be implementing treatments and associated SPRs and mitigation measures. Therefore, as used in this PSA/Addendum, unless otherwise noted, NCFF, LTNC, and PUC are collectively referred to as the project proponent.

Purpose of This PSA/Addendum

This document serves as a PSA to evaluate whether the proposed treatments would be within the scope of the CalVTP Program EIR. As stated above, the treatment types and treatment activities are consistent with the CalVTP. If a proposed vegetation treatment project is covered by the evaluation of environmental effects in the Program EIR, it may be approved using a finding that the project is within the scope of the Program EIR for its CEQA compliance, consistent with CEQA Guidelines Section 15168(c)(2).

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

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

This document serves as both a PSA and an addendum to the CalVTP Program EIR for review and analysis under CEQA for the proposed vegetation treatments within and outside the CalVTP treatable landscape. The project-specific mitigation monitoring and reporting program (MMRP), which identifies the CalVTP standard project requirements (SPRs) and mitigation measures applicable to the proposed project, is incorporated into the below analyses. The SPRs identified in the MMRP have been incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation, and are available in Attachment A.

MITIGATION MONITORING AND REPORTING PROGRAM

This PSA/Addendum also serves as a mitigation monitoring and reporting program (MMRP) in accordance with CEQA and the State CEQA Guidelines (Public Resources Code Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097). A MMRP is required for approval of the proposed project because this PSA/Addendum identifies potential significant adverse impacts and all feasible mitigation measures have been adopted. SPRs, which are environmental protection features included as part of the project description, have been incorporated to avoid or minimize adverse effects. Where potentially significant impacts remain after application of SPRs, mitigation measures have been identified to further reduce and/or compensate for those impacts. The numbering of SPRs and mitigation measures follows the numbering used in the PEIR. SPRs and mitigation measures that are referenced in more than one resource section below are not duplicated in Attachment A. Instructions for

project-specific implementation of certain SPRs and Mitigation Measures has been added to tailor the specific impact avoidance and minimization actions relevant to the proposed treatments, agency standard practices, and the conditions and resources present within each treatment site. The MMRP requirements covered in this PSA/Addendum are described below.

- SPRs and Mitigation Measures – Brief discussions indicating whether an SPR or mitigation measure is applicable to this project are included under each resource section below.
- Implementing Entity & Timing Relative to Implementation – This identifies the agency responsible for implementing the measure and time frame in which the SPR or mitigation measure will be implemented for each applicable SPR/mitigation measure.
- Verifying/Monitoring Entity – This column identifies the party responsible for verifying and monitoring implementation of the SPR or mitigation measure.

This MMRP will be adopted by CAL FIRE with regard to its discretionary approval of the issuance of FHG funding to implement treatments within a portion of the project area. As this PSA/Addendum is used for CEQA compliance of future discretionary approvals by other state and local agencies related to treatments in the project area, those agencies will adopt separate MMRPs that specify the SPRs and mitigation measures relevant to their approval and within their jurisdiction. In coordination with the lead or responsible agency (CAL FIRE for the purposes of this FHG), NCFF, LTNC, or PUC will document and describe the compliance of the project treatment work with the required SPRs and mitigation measures either by adapting a project-specific MMRP table or preparing a separate post-project implementation report pursuant to the requirements of SPR AD-7.

PROPOSED PROJECT REVISIONS

Project Area Outside the CalVTP Treatable Landscape

Among the other criteria for determining whether a treatment project is within the scope of the CalVTP Program EIR is whether it is within the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the Program EIR). If a proposed project includes substantial SRA treatable landscape but also extends in part outside the SRA, it may still rely on environmental analysis in the Program EIR if the environmental conditions of the outside landscape and reasonably foreseeable environmental impacts of proposed treatments are consistent with the descriptions in the Program EIR. The proposed project is in the SRA but not wholly within the CalVTP treatable landscape. In total, those areas outside the treatable landscape encompass approximately 652.0 acres out of the 5,190.9-acre project area; these areas are dispersed throughout the project area (refer to Chapter 2, “Treatment Description”).

Proposed Revisions to CalVTP SPRs

While the proposed treatment types and treatment activities are consistent with the CalVTP, CAL FIRE and NCFF have determined that certain requirements of CalVTP SPRs are infeasible, are not warranted to maintain the impact significance conclusions in the Program EIR, and, if implemented as presented in the Program EIR, would prevent achievement of treatment objectives. Because SPRs are part of the CalVTP and are incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation, revisions (beyond clarifying edits) would constitute a change to the CalVTP Program EIR’s description of later project activities.

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 Program EIR and described in this PSA/Addendum. Evidence to explain this conclusion is presented under each applicable resource, as described below.

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, NCFF would 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 convey prescribed fire objectives.

Potential impacts resulting from revisions to SPR AQ-6 are discussed below under Section EC-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 Program EIR. 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 Attachment A, which outlines the SPRs and mitigation measures.

TREATMENT DESCRIPTION

Over sixty percent of Napa County has burned in wildfires since 2017 (CAL FIRE 2019). Howell Mountain is a regional biodiversity hotspot, uniting the drier oak forests and grasslands to the east with the moister Douglas fir and redwood forests to the west. Countywide, Napa contains 18.5 percent of California’s plant species in only 0.5 percent of the land area.

The Angwin-Deer Park Wildfire Resilience Project includes treatments to restore long-term forest health, fire and climate resiliency, and community wildfire preparedness in the greater Angwin and Deer Park areas. The community of Angwin is on the northeast side of the Napa Valley and is considered the highest wildland-urban interface (WUI) threatened community in Napa County to not have experienced recent fire. The Tubbs fire (2017), Atlas fire (2017), Hennessey fire (2020), and Glass fire (2020) burned adjacent to but just outside of the community of Angwin in recent years, and a few small historic fires are recorded in the region in the 1950’s, but much of Angwin has no record of fire going back seventy or more years (CAL FIRE 2019). Fuel has accumulated in the forests in Angwin, and local firefighters consider the area among the highest wildfire threat to public safety (Wilson, pers. comm., 2022). With approximately 3,800 residents, Angwin is also the most densely populated community in the WUI of Napa County. It has one primary road for emergency ingress and egress–Howell Mountain Road–a narrow, windy road from Napa Valley to Pope Valley. This area is home to both the Pacific Union College and the Adventist Saint Helena hospital. Nearby Deer Park is downhill from Angwin, at the edge of the Napa Valley. The project area ranges from gently to steeply sloping topography with an elevation range of 200–2,894 feet from Deer Park at the foot of Glass Mountain and up to “Three Peaks” in the Dunn Wildlake Preserve. The project area includes areas along the outskirts of Angwin, and Deer Park, the latter of which burned in the 2020 Glass and Hennessey fires.

The proposed project consists of non-commercial wildfire risk reduction and forest health improvement vegetation treatments undertaken by multiple implementing entities: The Napa Communities Firewise Foundation (NCFF), Pacific Union College (PUC), and Land Trust of Napa County (LTNC). Treatment types that would be implemented in the project area are WUI fuel reduction, fuel breaks, and ecological restoration (Table 2-1).

Table 2-1 Proposed CalVTP Treatment Areas, Implementing Entity, Timing, and Activity

Treatment Type and Treatment Area Name	Implementing Entity[1]	Timing of Initial Treatment	Treatment Activity[2]	Acres
Ecological Restoration Treatment Type				
Aetna Springs Preserve Forest Health	LTNC	2024-2029	All	178.0
Audubon Cheyney Preserve Forest Health	LTNC	2024-2029	Manual, mechanical, herbicide, prescribed burning	47.9
Friesen Lakes Watershed Forest Health	NCFF	2023-2027	All	303.4
Glass Mountain & Hospital Forest Health	NCFF	2023-2027	All	112.3
Glendale Ranch/Linda Falls Preserve Forest Health	LTNC	2024-2029	All	380.3
Pacific Union College Forest Health	PUC	2022-2026	Manual, mechanical, herbicide, prescribed burning	1,108.2
Summit Lake to Ink Grade Forest Health	NCFF	2023-2027	All	606.5
Wildlake Preserve Forest Health	LTNC	2023-2026	Manual, mechanical, herbicide	564.4
			Total acres ecological restoration treatment	**3,301.1**
Fuel Break Treatment Type				
Aetna Springs Preserve Roadside	LTNC	2024-2029	All	39.7
Deer Park & Howell Mountain Roadside Expanded	NCFF	2023-2029	All	262.6
Friesen Drive (to Lookout Point) Roadside Expanded	NCFF	2023-2027	All	39.1
Hospital Defensible Space and Evacuation	NCFF	2023-2027	All	66.8
Hospital Water Supply Roadside Expanded	NCFF	2023-2027	All	41.2
Okin Preserve Roadside/Evacuation Route	LTNC	2024-2029	Manual, mechanical	13.5
Old Howell Mountain Road Fuel Break	NCFF	2023-2027	All	114.6
Summit Lake Drive Roadside Expanded	NCFF	2023-2027	All	92.5
Wildlake Preserve Roadside Expanded	LTNC	2023-2026	Manual, mechanical, and herbicide	394.0
			Total acres fuel break treatment	**1,063.8**
WUI Fuel Reduction Treatment Type				
Angwin PUC WUI	PUC	2023-2026	All	237.9
Hospital WUI	NCFF	2023-2027	All	81.3
Old Howell Mountain to Linda Falls Trailhead WUI	NCFF	2023-2027	All	506.8
			Total acres WUI fuel reduction treatment	**826.0**
			Overall total acres:	**5,190.9**

[1] Land Trust of Napa County (LTNC), Pacific Union College (PUC) and Napa Community Firewise Foundation (NCFF)

[2] Treatment areas which will utilize "all" treatment activities may use all treatment activities described under Proposed Treatments – Treatment Activities, which include manual vegetation treatment, mechanical vegetation treatment, prescribed burning (both broadcast and pile burning), herbicide, prescribed herbivory, and biomass processing technologies. All sites where treatments occur will also involve biomass disposal.

Source: Data provided by The Napa Communities Firewise Foundation 2022.

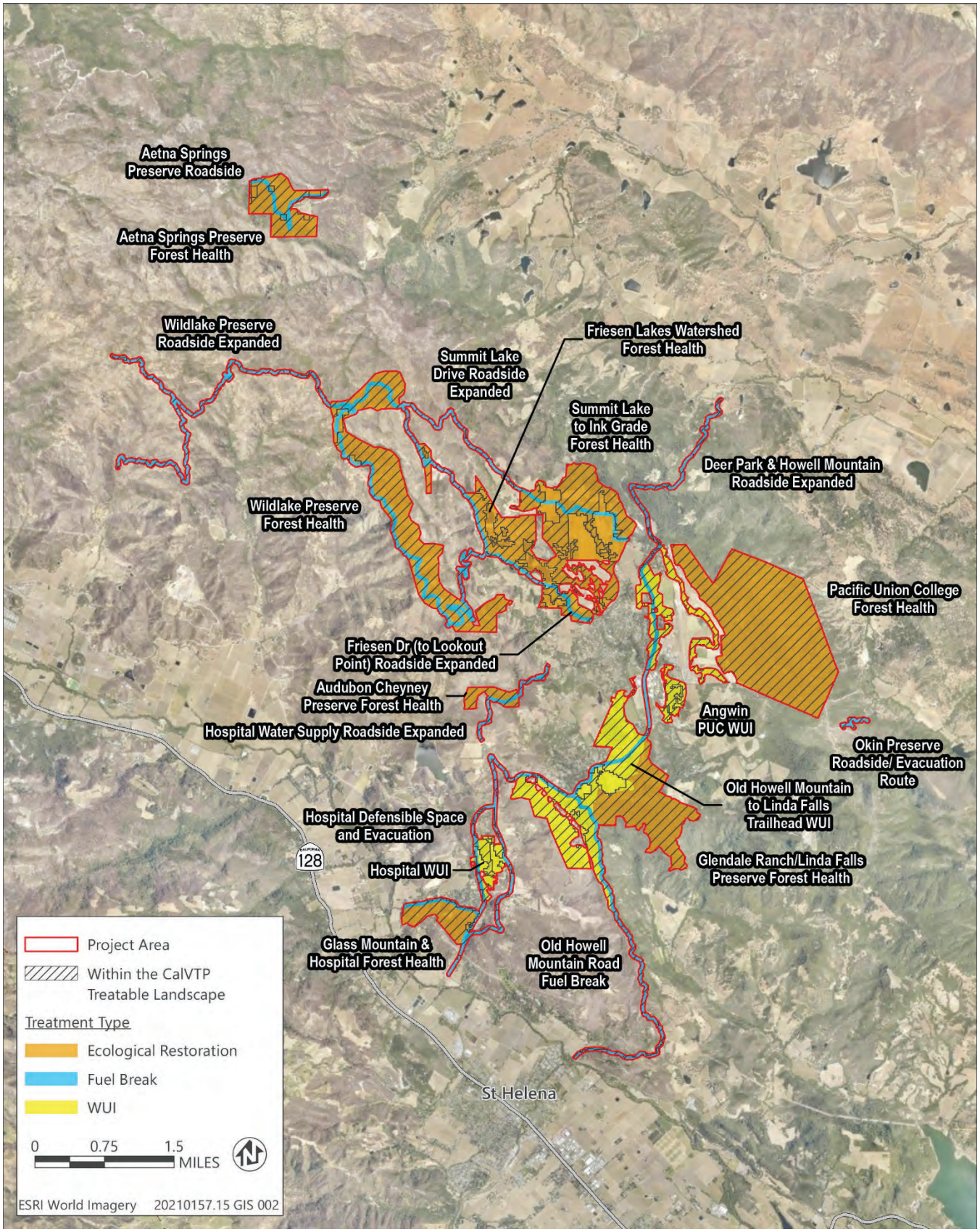
PROPOSED TREATMENTS

The proposed project comprises three treatment types: WUI fuel reduction, fuel breaks, and ecological restoration (Figure 2). The treatment activities proposed to implement each of these treatment types are manual, mechanical, prescribed burning (pile and broadcast), prescribed herbivory (grazing), and targeted ground application of herbicides. Proposed treatment types and treatment activities vary across each of the twenty treatment areas (Table 2-1, Figure 3). The treatment types and treatment activities are described below.

Treatment Types

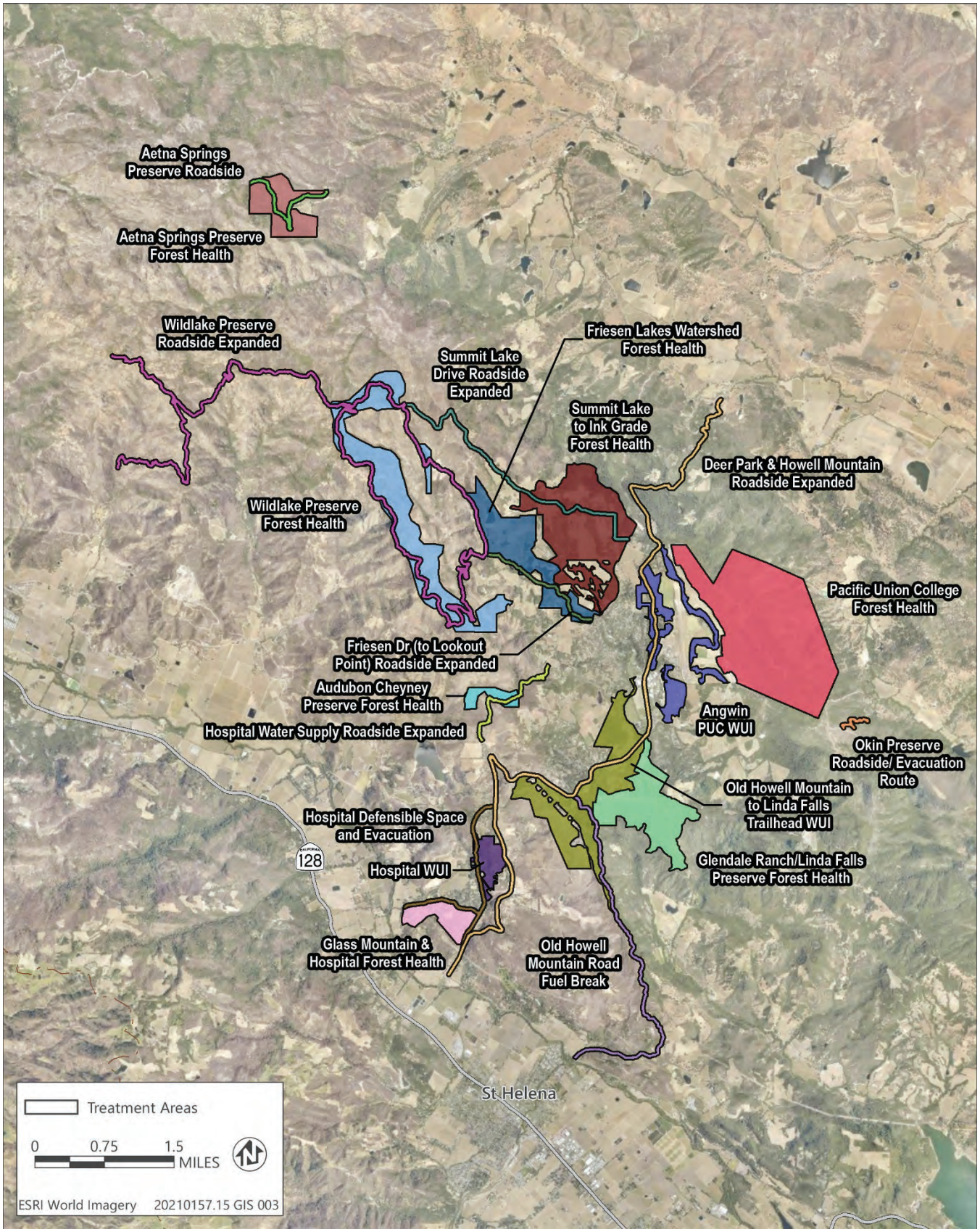
WILDLAND-URBAN INTERFACE FUEL REDUCTION

In the Wildland-Urban Interface (WUI), wildlands and communities are adjacent to each other; buildings and vegetation are in close proximity. A wildland fire in the WUI poses high risk of spreading to a structure, and human-related ignition in the WUI could conversely ignite wildland vegetation. The priority of wildland fire suppression in the WUI is to protect life and property. WUI fuel treatments strive to remove fuel to protect communities and human assets in developed areas from wildland fires as well as to protect the wildlands from fires originating in developed areas. WUI fuel treatments are also used to improve emergency access and evacuation routes and enhance habitat conditions. The WUI fuel reduction treatments include creation and maintenance of defensible space around structures, removal of dead and dying trees, and roadside clearance for evacuation support and first response.



Source: Data Received from NCFF in 2023.

Figure 2 Proposed Treatment Areas Identified by Treatment Type



Source: Data Received from NCFF in 2023.

Figure 3 Proposed Treatment Areas

FUEL BREAKS

Fuel breaks are strategically located, usually linear, strips where vegetation has been thinned or removed to slow the spread of a fire or reduce the likelihood of fire transitioning from the ground to the tree crown or canopy, and as a defensive position for firefighting. While a fuel break alone would not stop a wildland fire, strategically placed fuel breaks reduce the likelihood of crown fire transition. In this project, only shaded fuel breaks would be implemented. Shaded fuel breaks are created by pruning the lower branches of trees and removing the understory shrubs and small trees. Select tree removal may occur in a shaded fuel break where young conifers are encroaching into native oak or hardwood forests. In treatment areas that contain only hardwoods, the canopy would not be opened; a closed canopy is the desired condition so that growth of understory shrubs is stunted by the continuing shade. This closed canopy would also reduce rain velocity (raindrop impact) and resulting surface soil erosion. In locations with Douglas fir and Ponderosa pine, canopies may be thinned. Thinning would emphasize removal of smaller diameter trees, especially smaller conifers. Hardwoods would be the preference for trees to be retained over Douglas fir, without regard to diameter of the hardwood. In other words, smaller hardwoods would be retained in heterogeneous forest to provide structural and species diversity. Larger (greater than 12 inches in diameter) ponderosa pines, other conifers (e.g., redwood and Douglas fir), native oaks, and other native tree species would be retained. In native hardwood forest where conifers are encroaching, select conifers exceeding 12 inches in diameter may be removed at the recommendation of a Registered Professional Forester (RPF). In hardwood forest and oak woodlands, healthy, live, native trees up to 12 inches diameter at breast height (DBH) may be felled, and trees greater than 12 inches DBH may be limbed up (i.e., have their lower branches removed) to 8–10 feet in height. In conifer forests and in areas where Douglas fir is encroaching on hardwood and oak woodlands, tall conifers may be limbed up to 12-15 feet in height. The completed treatment would leave an open-canopied area without ladder fuels where native and/or mature trees would be spaced 20–25 feet apart. When the RPF determines it would improve the wildfire resilience of ridgetop shaded fuel breaks, replanting of native species may be implemented to encourage favorable native forbs and oak species to be established in favor of invasive plants and conifers. The Angwin-Deer Park Wildfire Resilience Project fuel breaks are all designed to treat up to 110 feet from the centerline, which is typically measured from the center of existing roads, trails, and bulldozer lines (a.k.a. “dozer lines”).

Fuel breaks are intended to limit ember production and distribution, to help prevent fire spread from one location to another, and to support roadside evacuation efforts and wildfire suppression. Roadside evacuation support treatments are fuel breaks along evacuation routes. All dead and dying or otherwise hazardous trees prone to torching or those that could fall, and block access are typically removed. However, other factors are considered before trees are removed, such as the spread of invasive species, habitat restoration, and erosion prevention. Small trees and shrubs that could enable torching would also be removed.

ECOLOGICAL RESTORATION

Ecological restoration involves treating an area to restore ecosystem services, processes, and functions that have been degraded, damaged, or destroyed. Many ecosystems and species have evolved to depend upon periodic fire to help maintain ecological balance and function. However, human activities have altered natural fire regimes; increased human ignitions lead to excessively high fire frequencies, and fire suppression and exclusion lead to higher fuel loads resulting in higher intensity fires. Ecological restoration seeks to reduce hazardous fire conditions and return an area to a more natural fire return interval, which would experience less extreme fire conditions. Treatments would seek to increase fire and climate resiliency, and to return the landscape closer to pre-European settlement conditions while adapting for climate change. Through these treatments, habitat quality can be improved, including controlling and eliminating nonnative, invasive plants and excess fire-fuel buildup from historic fire-exclusion practices.

Specific restoration objectives include: removing dead and dying standing trees and other dead and dying material created by the 2020 Glass and Hennessey Fires, and/or other conditions such as drought; reintroduction of native species through tree planting, reducing extremely dense cover of invasive species that have adapted to readily occupy sites following wildfire; thinning post-disturbance sprouting plant species, and controlling sprouts on selected sprouting species, including bay, tanbark oak, chamise, coyote brush, toyon, and oaks; removing encroaching conifer species to re-establish a mixed evergreen or hardwood vegetation types, and/or ridgetop meadows; increasing Ponderosa pine resiliency to bark beetle infestations; increasing the average tree diameter of stands by removing smaller trees and shrubs, increasing the average height to the bottom of live crowns; assisting the recovery of an ecosystem affected by intense wildfire and creating a mosaic of vegetation types.

Treatment Activities

Treatment activities proposed in each treatment area include manual treatments, mechanical treatments, prescribed burning (pile and broadcast), prescribed herbivory (grazing), and targeted ground application of herbicides. These activities are often used in combination to achieve the treatment goals. Additionally, some specialized biomass processing technologies may occur around-the-clock during periods when weather and air quality conditions allow. In each treatment area, treatment activities would be selected that are most likely to accomplish the desired objectives for each specific site, protect natural resources, and meet the overall goals of long-term fire and climate resiliency.

Table 2-2 Proposed CalVTP Treatment Activity and Equipment

Treatment Activity	Equipment Used for Treatments
Manual Vegetation Treatment (cutting, clearing, piling, planting)	Hand tools, chainsaws, pole saws, loppers, hand saws, brush cutters, shovels, Pulaski hoes, McLeod fire tools, weed wrenches, weed whips, machetes, pruning shears, ATV
Mechanical Vegetation Treatment (cutting, mastication, chipping)	Mowers, chipper (track or non-track), track masticator, tractor/skidder, feller-buncher, masticators, excavator. Boom-mounted equipment on tracks or tires with capabilities such as a Sennebogen Tree Care Handler, ATV.
Prescribed Burning – *Pile burning*	Fire apparatus (e.g., engines, 4x4 pickup trucks), water truck, UTV, ATV, chainsaws, ignition devices, drip torch, hand tools
Prescribed Burning – *Broadcast Burning*	Fire apparatus, water truck, UTV, ATV, chainsaws, ignition devices, drip torch, hand tools
Specialized Biomass Processing Technologies	Air curtain burner and forwarders, carbonators, gasifiers, log loaders, or log trucks
Herbicide Application (stump application, targeted spray)	Backpack sprayers, UTV or ATV with sprayer/reservoir tank, personal protective equipment (PPE)
Prescribed Herbivory	Livestock, fencing, herding animals, related vehicles

Note: Equipment used is a representative example of the types of equipment which may be used. Not all equipment is required for all cases.

ATV = All-terrain vehicle; UTV = Utility task vehicle.

Source: Information provided by NCFF in 2022.

Across all treatment types, the following retention standards would apply:

- Understory trees and other vegetation (i.e., shrubs) under 12” DBH for conifer stands and 9” DBH for hardwood stands could be removed to reduce vertical and horizontal fuel continuity of standing vegetation.
- Dense stands of healthy, living, small (6-12” DBH) conifers and hardwoods shall have a residual horizontal canopy spacing of ~20-25 feet, with larger, healthy individual trees being retained. In areas where conifer forest is encroaching on hardwood forest, oak woodland, or grassland, this standard would not apply to conifer removal.
- Dead and dying trees exceeding 12” DBH may be removed, in compliance with snag retention standards.

- In areas where all trees are less than 9” DBH, crews would be given specific instructions to retain the largest dominant/codominant trees onsite per a site-specific spacing pattern, so treatment does not create large holes or openings in the forest.
- In chaparral/shrub types with ecological restoration treatments, fuel continuity would be broken up, leaving scattered clumps of existing vegetation as a mosaic. Shrubs would be more heavily reduced in fuel break and WUI treatments.

MANUAL VEGETATION TREATMENT

Manual treatment involves the use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous and woody species. Activities could include thinning trees; cutting undesired competing shrub species; manually pulling, grubbing, or digging out root systems of undesired plants to prevent sprouting and regrowth; placing mulch, such as wood chips from pruning operations, around desired vegetation to limit competitive growth and minimize erosion, and planting of native trees for reforestation of burned areas. This treatment allows for selective removal of targeted species.

Manual treatments are typically used in developed, sensitive, steep, or otherwise hard to access areas and for small-scale treatment areas. Ground disturbance associated with manual treatments is typically less than mechanical treatment within an equivalent area. To implement manual treatments, crews of approximately four to twenty-five crew members would use hand-operated power tools (refer to Table 2-2). Manual treatments can involve workers using tools to fell a tree in a direction that facilitates processing or minimizes disturbance to sensitive areas. Typically, treatments would require several days to several months to complete, depending on the treatment size, steepness of terrain, and type and density of vegetation. Manual treatment methods are occasionally used in tandem with mechanical treatment methods, such as the integration of chippers to process cut materials into mulch. Manual treatment activities may also include the planting of native trees to support reforestation of burned areas or to encourage native species to colonize a disturbed area in favor of invasive or high-fire-risk plant species. Reforestation would involve selection of planting locations, acquisition of native trees suitable to the local habitat, and placement of young saplings with adequate spacing for healthy growth. Supplemental water and soil preparation may also be involved with reforestation efforts as needed.

Trees would be removed, thinned, and pruned; woody shrubs would be cut and cleared. In select forested areas, the focus would be on thinning/cutting dense standing dead and dying wood, especially trees up to 12 inches DBH, while retaining two to five snags per acre, with a preference for retaining the largest snags that exhibit the form and decay characteristics favored by northern spotted owl and other wildlife. Trees exceeding 12 inches DBH which are dead, nonnative, or considered safety hazards by an RPF or another qualified professional may also be removed. In addition, where conifers are encroaching on native hardwood, oak woodland, or grassland, select conifers exceeding 12 inches in diameter may be removed at the recommendation of an RPF. The post-treatment condition would reflect 15- to 30-foot tree spacing (distance between tree canopies) and up to 65 trees left per acre. Retained trees would represent a diversity of native species and size-class distribution.

Vegetation removed during manual treatments is usually chipped and spread or lopped and scattered directly back onto treated areas to help reduce erosion potential, or piled for later burning. As stated, mechanical vegetation treatment equipment may be used in support of manual treatment to mulch vegetation.

On steeper slopes, within Watercourse and Lake Protection Zones, where permits allow, and on other less accessible and/or ecologically sensitive areas, hand crews would use manual treatments to thin-from-below to protect larger trees and ecologically significant ecosystem types and stands. This prescription would depend upon the density of the stand, ranging from selective thinning around trees identified for retention, to a standard thin-from-below prescription, to heavier thinning by removing trees from the densest areas. Manual treatment may be preferred over mechanical treatment on steeper slopes (greater than thirty percent) where mechanical equipment cannot safely enter or there is greater

risk of erosion. Cut material would be piled and later burned to protect residual trees, especially the largest and healthiest individuals.

Manual vegetation removal treatment typically lasts at least one day and may occur for up to several months on larger projects. Manual vegetation treatments are planned to be used in all the treatment areas.

MECHANICAL VEGETATION TREATMENT

Mechanical treatment involves the use of heavy motorized equipment, such as tractors, masticators, or specially designed vehicles with attached implements designed to cut, tear, uproot, crush/compact, or chop target vegetation. Mechanical treatment methods that may be used include mowing, masticating (mulching), grubbing, and chipping, among others. Mowing using a tractor reduces fuel height of vegetation and performed at the appropriate time can reduce the amount of manual work needed to treat an area. Skid steers or compact skid steer loaders are commonly used in mechanical treatment and are fitted with one of three attachments: a masticating head, a grapple head, or a brush rake. The brush rake is used to clear shrubs and form piles or clear around debris piles prior to burning them. The grapple attachment can pick up cut trees and move them for burning or chipping. The masticating attachment is used to cut and chip smaller trees and branches. In steep terrain and heavy fuel areas, excavators may be more suitable than skid steer masticators. An excavator with an attached masticator/mulcher can turn large shrubs and trees into small chunks that can be left on site. Current best practices limit mechanical equipment to slopes less than thirty percent grade. Some rubber-tired equipment, such as a Sennebogen or other boom-mounted equipment on tracks or tires may also be used. The boom-mounted cutting head of this machine would “grasp” larger tree limbs, cut them, and transport them to a landing without disturbing the ground directly underneath the tree, which can be optimal for removing vegetation in sensitive or hard-to-reach areas.

Mowing tools, including rotary mowers or straight-edged cutter bar mowers, or flails, are used to cut herbaceous and woody vegetation above the ground. Mowing results in shorter, more compacted fuels, which reduces potential flame length and fire spread rates. Timing of mowing has an impact on the type of vegetation promoted: mowing after annual grasses have dried enhances growing conditions for perennial native grasses, provided mowing does not occur during seed production. Mowing at the appropriate time to a certain height (approximately 4 inches) minimizes weed and shrub encroachment and reduces the amount of manual work needed to maintain the site. Mowing of weeds is typically required annually.

Mechanical treatment is effective at removing dense stands of vegetation and is typically used in shrub and forested fuel types. Mechanical treatments are appropriate where a high level of control over vegetation removal is needed, such as near residential areas, in sensitive habitats, and along roadways or other high-traffic areas.

Typically, mechanical treatments would not require hauling of cut material from the property. Cut material is chipped, or lopped and scattered, directly back onto treated areas to help reduce erosion potential. As needed, up to three logs per acre would be anchored and utilized onsite for erosion mitigation, as well as for wildlife habitat. Vegetation removed during mechanical treatments (i.e., biomass) is handled in the same methods as described above under Manual Methods.

The average number of workers onsite for mechanical vegetation removal is 2-5 people, and usually lasts from a week or more to several months. Mechanical treatment activities may occur in all treatment areas.

PRESCRIBED BURNING

Prescribed burning is the intentional use of fire under specified conditions related to fuels, weather, location, and other variables. Two types of prescribed burning would be used under the proposed project: pile burning and broadcast burning.

Prescribed burning is intended to return the ecological benefits of fire to the landscape and/or process, dispose of or otherwise eliminate biomass. Pile burning and broadcast burning treatments produce lower intensity surface fires that are intended to control vegetation by enhancing the growth, reproduction, or vigor of certain species, in addition to managing fuel loads, and/or maintaining a targeted vegetation community. Surface fires are prescribed to burn along the surface without significant movement into understory or overstory vegetation with low flame lengths.

Prescribed burning may occur throughout the year as conditions are suitable and pursuant to environmental constraints; however, it is often conducted during late spring when the ground is still wet, or during the fall or winter when precipitation is imminent, and when plants have completed their yearly growth cycle and their moisture content has declined. Burn timing depends on site conditions, treatment, and desired ecological and/or cultural outcomes. Burning may also occur in late winter when leaf litter is dry but annual grasses are moist and green, and/or in the summer when grasses are dry.

Factors that are considered when designing and implementing a prescribed burn include risk to structures and property, land use, environmental impacts, smoke impacts, weather conditions, soil stability, slope and aspect, soil type, vegetation type and density, fuel moisture content, time of year, fire return interval, and the efficacy of alternative activity methods.

All treatment areas would include prescribed fire treatments except for Wildlake Preserve Forest Health, Wildlake Preserve Roadside Expanded, and Okin Preserve Roadside/Evacuation Route.

All burning would occur in accordance with regulations regarding the use of prescribed burning and pursuant to an approved burn plan.

Pile Burning

Pile burning would entail using equipment (e.g., skid steer, tractor, excavator) or hand crews to pile, then burn, biomass from manual and mechanical treatment. Typically, equipment with a brush rake may be used to reduce soil displacement and create “clean” piles. Additional equipment used for a pile burn includes fire engines, work crews, bulldozers, masticators, onsite water truck for fire suppression, and ignition devices such as drip torches. Pile burning would occur in cleared areas or in areas with little to no live overstory, including areas that have experienced previous wildfire. Pile burning treatment would usually occur in areas where initial mechanical and manual treatments have previously reduced understory height and density and where dead, down, and cut fuels are piled. Burn piles would not occupy more than 15 percent of the total treatment area, as required by SPR GEO-6.

Pile burns typically last at least one day and may occur throughout the safe burning period of the year. The average number of workers onsite for pile burning is 4-20.. Pile burning would not occur in areas that support rare plants. Pile burning may be used to consume piles produced by previous fuel reduction efforts.

Broadcast Burning

Broadcast burning would be used to promote forest and ecosystem health and replicate a more natural fire-return interval. Pretreatment of vegetation using manual and mechanical activities, herbicide application, or prescribed herbivory, would usually occur as initial treatment in areas proposed for broadcast burning to reduce understory height and density and encourage a safe burn. Broadcast burning may also be introduced as an initial treatment in areas where pre-treatment conditions are identified as safe for burning. Broadcast burning treatments would promote a more natural, pre-colonial, and wildfire-resilient native landscape. Broadcast burning is often most suitable for larger areas, since the preparation required is similar regardless of the size of the area to be burned.

Broadcast burns typically last at least one day and may occur for up to one week. Equipment used for a broadcast burning includes fire engines, work crews, bulldozers, masticators, onsite water truck for fire suppression, and ignition devices such as drip torches. The average number of workers onsite for a broadcast burn is 5-50. Broadcast burning would be designed to create a low-intensity ground fire. Broadcast burning may require the construction of fuel breaks using manual or mechanical treatments if roads, trails, and/or natural fuel breaks are not already in place; use of existing roads and, rocky areas

of existing trails, and/or waterways is preferred. Broadcast burning may be used where other activities are not feasible because of rocky soils, steep slopes, or irregular terrain.

In some cases, a hybrid method may be implemented, of pile and broadcast burning, where pile burning is initiated, and fire is allowed to creep between burning piles, called pile-cast or pile-creep burning. This variation of prescribed burning usually requires control lines around the entire treatment area, and/or local conditions that would ensure the fire would not escape prescription, similar to broadcast burning.

HERBICIDE

The occasional application of herbicides to treat invasive plant species would be implemented to promote native plant biodiversity, to limit resprouting, and/or to extend maintenance intervals. Consistent with the definitions applied in the CalVTP, invasive species are those plant species identified as invasive by the California Invasive Plant Council or defined as noxious weeds under California law by the California Department of Food and Agriculture. Manual and mechanical treatment, and/or prescribed burning would be followed by spot application (e.g., backpack sprayer, paintbrushes) of herbicides to invasive plants in year one and in successive years to treat re-growth.

Herbicides are chemicals that damage or kill plants and are categorized as selective or non-selective. The most selective techniques for applying herbicides are manual spot applications using daubers, backpack sprayers, and/or hand-pump sprayers. Broadcast spraying is not selective because it involves spraying an entire area rather than specific plants and can have excessive negative environmental impacts. Applicators are required to wear personal protective equipment and have appropriate licensing and/or training.

Selective herbicides kill only a specific type of plant, such as broad-leafed plants, which allows the herbicide to be used to control weeds while maintaining grass species. Other herbicides, such as glyphosate (Roundup®), are non-selective and kill any type of plant. Herbicides would only be applied to vegetation using cut stump or basal-bark application techniques, which are described below.

- Cut-Stump Application: To maximize the efficacy of treatment the tree or shrub must be cut leaving a stump not more than four inches in height above soil surface and the cut surface of the stump must be treated with an herbicide within minutes of the cut. The herbicide is applied to the outer portion of the cut surface, including the cambium of the tree. The herbicide is then translocated to the roots and disrupts the transportation of nutrients and water, causing the plant to die.
- Basal-Bark Application: This treatment consists of spraying at very low pressure a solution of the herbicide mixed with esterified vegetable oil to the lower 12 to 15 inches of the resprout. This application method permits the operator to selectively treat resprouts without injury to adjacent vegetation and is particularly effective on resprouts less than six inches in diameter.
- Herbicides that may be applied are:
    - Borax (tetraborate decahydrate);
    - Clopyralid (monoethanolamine salt);
    - Glyphosate (isopropylamine salt, potassium salt, dimethylamine salt & diammonium salt);
    - Hexazinone;
    - Imazapyr (isopropylamine salt);
    - Sulfometuron Methyl;
    - Triclopyr (butoxyethyl ester & triethylamine salt, a.k.a. “Garlon”);
    - Nonylphenol 9 Ethoxylates (NP9E);
    - Cleantraxx (penoxsulam & oxyfluorfen);

- Velpar (hexazinone); and
- Indaziflam.

Several herbicides which may be used (e.g., glyphosate, hexazinone, imazapyr, and triclopyr), are subject to the California Red-Legged Frog Injunction (Center for Biological Diversity v. US EPA [2006] Case No. 02-1580-JSW), and therefore, specific application requirements apply for treatments within the area covered by the injunction. Within the project area, the injunction area covers the northernmost 0.9-mile length of the Deer Park and Howell Mountain Roadside Expanded treatment area. Inclusion of this portion of the project in the injunction area is based on a historic occurrence of California red-legged frog which is possibly extirpated, and California red-legged frog is not expected to occur in the project area. Regardless, the herbicide injunction applies to this portion of the project area and the project will comply with the injunction. Herbicide application must comply with all US Environmental Protection Agency (EPA) label directions, as well as California Environmental Protection Agency and Department of Pesticide Regulation (DPR) label standards. At a minimum, implementing entities would comply with all laws and regulations governing the use of herbicides. Herbicide application treatments typically last at least one day and may occur for up to one week. Equipment used for herbicide application include a backpack or truck-mounted hose rig sprayer and pedestrian crews and PPE. The average number of workers on-site for herbicide application is 2-10.

All treatment areas include the possibility of select herbicide application to control invasive plant species, except Okin Preserve Roadside/Evacuation Route.

PRESCRIBED HERBIVORY (GRAZING)

Prescribed herbivory, also known as “managed livestock grazing,” is the use of domestic livestock to accomplish specific and measurable vegetation management objectives. Objectives include removing biomass (fine or flashy fuel loads), reducing populations of specific plant species, slowing the reestablishment of shrubs on burned or mechanically thinned sites, preventing shrub encroachment into grasslands, and improving plant community structure for wildlife habitat values. Grazing is used both as an initial treatment to reduce the volume of hazardous fuels, and as a maintenance technique. Goats, sheep, and cattle are most commonly used for this purpose because they are relatively common and easy to manage (NRCS 2003). Grazing or browsing by these animals is best used for green herbaceous plants that produce fine fuels as well as for smaller diameter woody species that produce highly flammable fuels.

Livestock are best selected according to site conditions and the types of vegetation that need to be managed. Goats are typically best suited to woody vegetation and in steep terrain; sheep eat both forbs and grasses and can be used in a variety of environments; and cattle are better suited to herbaceous plants, especially grasses, and in larger areas. Successful herbivory treatments can also enhance habitat for certain wildlife. For example, shrub species increase their vegetative output for winter browsing by deer and other wildlife. Managed grazing is most effective when employing the proper combination of animals, stocking rates, timing, and rest. The frequency of moving the livestock is based on numerous site-specific factors, including slope, density and type of vegetation, stocking rate, type of livestock, and precipitation/moisture content of vegetation. Grazing is not recommended for healthy forest ecosystems where invasive species could be introduced by the animals.

Prescribed herbivory treatments typically last at least one week and may occur for up to four weeks in a given area. Equipment used for prescribed herbivory includes a trailer to haul livestock, a herder, mineral blocks, supplemental food, livestock guarding animals, temporary fencing, and temporary water for livestock. The average number of workers on-site for prescribed herbivory is 1-4.

All treatment areas would include the possibility of prescribed herbivory with the exception of Pacific Union College Forest Health, Wildlake Preserve Forest Health, Wildlake Preserve Roadside Expanded, Audubon Preserve Forest Health, and Okin Preserve Roadside/Evacuation Route.

Biomass Processing

Wherever possible, biomass would be mulched during the process of mastication, or would be consumed by prescribed burning. Where mastication is the preferred treatment activity, masticated fuels would be mixed into the soil to leave mulch behind in treated areas. Where mastication or prescribed burning is not feasible, chipped or lopped and scattered debris may be left onsite, removed to a biomass facility, or burned in an air curtain burner, carbonators, gasifier, or piles.

In some remote locations, biomass would be lopped and scattered or chipped directly back onto the treated areas, which can help reduce erosion potential. The volume of cut material left onsite would be kept low enough to prevent excessive fuel buildup and not interfere with access for monitoring or establishment of desirable revegetation. Chipped and masticated biomass left on site would not exceed 2-6 inches in depth (preferably mulched into the soil), and invasive plants, plant parts, and propagules would be appropriately contained and disposed of offsite at a waste collection facility. Flat landings are often established to sort, store, and chip cut trees into mulch and spread or remove the material. Opportunities for the use of large logs for habitat restoration, soil stability, and/or barriers for vehicular traffic would be used when possible, as it both provides long-term carbon storage and blocks unauthorized use. Logs would be anchored and used for on-site erosion control, and as wildlife habitat.

All treatment areas would have an element of biomass disposal, unless prescribed burning or grazing are used to treat residual fuels.

SPECIALIZED BIOMASS PROCESSING TECHNOLOGIES

In place of pile burning in some areas, specialized biomass processing technologies could be used to process biomass; incidental environmental benefits include carbon sequestration via production of soil amendments, reduction in the production of smoke particles (particulate matter [PM]), and reduction in greenhouse gas emissions released into the atmosphere. Air curtain burners, carbonators, and gasifiers are types of technologies that would be used for biomass processing, as feasible and available, pursuant to Mitigation Measure GHG-2 from the CalVTP PEIR, which requires incorporation of feasible methods or technologies to reduce greenhouse gas emissions. These technologies reduce emissions below what would be produced by pile burning equivalent amounts of biomass.

Equipment needed for these technologies are typically in self-contained facilities that could be placed on- or off-site, depending on their size and location. They would range in size from a small kiln to a small building. These technologies convert biomass into various products, including carbon ash and biochar. Ash and biochar may be scattered onto the soil once cooled or taken off-site for use elsewhere. Biochar would be used as an amendment to soil, where it can store carbon for long periods of time.

Specialized biomass processing technologies may be staged on existing roads, landings, other disturbed areas, or at a central biomass processing area. Some technologies are small and mobile and would be moved to treatment areas and other technologies are larger and would be staged in one place for a longer period. Biomass from nearby treatment areas may be transported to a central location. All equipment would be used in locations that meet the qualifications for their safe use.

CENTRAL BIOMASS PROCESSING AREAS

Biomass processing activities would occur exclusively in areas within the mapped project area which are previously disturbed sites and are already paved or graveled. There would be no grading required. Biomass may be processed at the Clover flat landfill off of the Silverado Trail, at the flat entry road to Aetna Springs, the Hunting Camp Trailhead at Wildlake, the Angwin Airport, or at other existing paved and graveled areas. Activities that may occur on the processing sites include storage for biomass, space for trucks, storage for ash and biochar, as well as the processing of biomass. The processing procedures would include loading the biomass into the processor with an excavator, burning/processing it, and emptying out the ash and biochar. After emptying the ash and biochar, the materials would either be used

on nearby LTNC, PUC, or private properties or distributed to local partners for use (e.g., for agriculture, grazing, and horticulture). Distribution to local partners would be limited to regional locations. Because ash has much less use in the region than biochar, it would most likely travel less distance. The biochar and ash would not be landfilled.

Log trucks would be used as the main transport to initially haul the biomass. The biochar product could be hauled-off with any vehicle, as it can be hauled the same as any soil product, by the pound or by the ton. Prior to implementation of biomass processing technologies, a central biomass processing area would be designated within 0 to 12 miles of the associated treatment activities.

DIRECT COMBUSTION – AIR CURTAIN BURNERS

Air curtain burning uses direct combustion to process biomass. Combustion is an exothermic (heat-producing) reaction between oxygen and the hydrocarbon in biomass. The biomass is converted into heat, water, carbon ash, and carbon dioxide. They are operated by depositing biomass in the firebox, an open top metal container, within which the biomass is set alight. The air curtain filter (i.e., fast-moving curtain of air) is drawn over the firebox while a blower that circulates the air and smoke within the firebox, subjecting it to repeated cycles of burning in the flames. The blower creates a high temperature vortex inside the chamber to accelerate biomass combustion, more completely combust the material, and keep most pollutants from escaping the firebox into the atmosphere. The air curtain at the top of the firebox acts as a filter to reduce any PM emissions from the resulting exhaust. The biochar produced by the air curtain burner would be distributed to landscape yards within the project area. Sites for air curtain burners would include flatter areas that are already disturbed and/or devoid of vegetation, such as logging landing sites, and that have good access to the vegetation to be processed.

Air curtain burners would be used in locations that meet the qualifications for their safe use. An example of a small air curtain burner that may be used is the BurnBoss T24. This is a small unit that can be towed with a standard heavy-duty pickup truck. The overall size is less than 20 feet in length, 8 feet in width, and 6 feet in height. A small US EPA Tier 4 diesel engine powers the air curtain fan. The BurnBoss T24 consumes 5-10 cubic yards of biomass per hour and up to a third of a gallon of diesel fuel per hour. Larger air curtain burners may be used as well. The size of the air curtain burner is directly related to the rate at which biomass can be processed (i.e., larger options can process 11-13 tons/hour and smaller versions can process approximately ½-1 ton/hour). Air curtain burners would typically be located in large, clear openings, with a minimum 100 feet of clearance of all vegetation surrounding the burners (e.g., skid trails, roads, landings) on bare mineral soil or pavement to avoid fire risk. Air curtain burners may also be operated from on open, grassy sites with low vegetation when operated outside of CAL FIRE-declared fire season. Placement would be located such that emergency vehicles or a fire engine would have unobstructed access in case of an emergency.

PYROLYSIS/CARBONIZATION

Pyrolysis (or carbonization) can be performed in a variety of ways, from simple oxygen-depriving designs, such as an Oregon kiln, which can process up to several cubic yards at a time, to modular and portable carbonation units, to more complex large-scale pyrolysis chamber systems in a fixed location that can process up to hundreds of tons of biomass per day (these would not be used as a component of the proposed project). Pyrolysis involves the conversion of biomass into hydrocarbon liquids, gases, or solids (or all three) in the total absence of oxygen at temperatures ranging from (400–900 degrees C). Pyrolysis of vegetative material yields “biochar,” which can be used as a carbon-rich soil amendment either off-site or on-site to support restoration replanting efforts. Only smaller scale, portable carbonators would be used as part of the proposed project. An example of a carbonator that may be used is the Tigercat 6050 Carbonator. This portable facility is approximately 40 feet in length, 12 feet in width, and 12 feet in height. Several Tigercat 6050 Carbonators may be used at one central location near several treatment areas.

GASIFIER

Gasification is defined as a high-temperature conversion of carbonaceous materials (biomass) into a combustible gas mixture under reducing conditions. Through gasification, biomass can be converted into gaseous fuels intermediate (producer gas and syngas) that can be used for heating, industrial processes, electricity generation, and liquid fuel production. The catalyst required for gasification typically consists of air, oxygen, steam, or a mixture of those three. The key benefits of using biomass as an energy source includes the fact that the components, when released, do not constitute a net carbon contribution back into the atmosphere as well as the reduction on the dependence of non-renewable or imported fuel sources.

In the future, NCFF, LTNC, PUC, or their contractors could obtain a gasifier to process woody biomass. Suitable processing locations near existing electrical infrastructure would allow electricity generated to be directed into the electrical grid similar to a solar array. The electricity generated could be stored in batteries for future use. Current advancements in electrifying equipment used for fuels management activities could result in the power generated charging the equipment performing the work associated with the project.

Proposed Treatments by Implementing Entity

The proposed project includes the following treatment areas by Implementing Entity:

PACIFIC UNION COLLEGE

Pacific Union College (PUC) is the lead implementing entity for the following treatment areas:

- *Angwin PUC WUI*
- *Pacific Union College Forest Health*

Angwin PUC WUI

Treatment Type: *WUI*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

The Angwin PUC WUI treatment area is located on PUC lands intermixed within the community of Angwin, on top of Howell Mountain as well as along Howell Mountain Road. It includes a 68-acre strip of forest that is directly east of the PUC airport, critical infrastructure at the interface of the wildland PUC Demonstration Forest, and the suburban area of Angwin.

Pacific Union College Forest Health

Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide*

The 1,108-acre PUC Demonstration & Experimental Forest in Angwin provides significant habitat, recreation, and watershed generation for nearby Lake Hennessey and Lake Berryessa. PUC's trails receive well over 1,000 visitors a year as Napa's premier forest recreation site. The importance of PUC's forests to the region has been supported by two Forest Legacy-funded conservation easements to ensure long-term watershed protection and effective rainwater capture, along with other public and private funding to restore forest health and fire resiliency to this forest, including a CAL FIRE Forest Health grant through NCFF to treat approximately 700 acres of the forest by March of 2026.

The Pacific Union College Forest Health ecological restoration treatment area consists of 1,108 acres of forested lands of the PUC Demonstration Forest, which are significantly overgrown and overly dense due to 90 years without the restorative effects of natural, healthy fire. According to Peter Lecourt, PUC

Forest Manager, the current conditions in the forest are hazardous. Overabundant competition for water is leading to drought stress in conifers, which are beginning to succumb to bark beetle infestation, especially in Ponderosa pine. The overly dense forest is also lacking a proper heterogenous mosaic that can optimally support an array of wildlife. Current conditions are ripe for a stand-replacing wildfire, which could result in the loss of several important ecological functions, including water retention. To alleviate this situation and to restore a natural, healthy forest, treatment activities such as understory thinning via hand crews and mastication, prescribed fire, selective replanting, and vegetation removal would be employed throughout the property.

PUC has a Non-industrial Timber Management Plan (NTMP 96-NTMP-015NAP) for timber harvesting. This PSA would provide CEQA coverage to facilitate publicly funded understory fuel maintenance of treated acres, and to complement the NTMP for long-term fire and climate resiliency at the PUC Demonstration Forest.

THE NAPA COMMUNITIES FIREWISE FOUNDATION

The Napa Communities Firewise Foundation (NCFF) is the implementing entity for the following treatment areas:

- *Hospital WUI*
- *Hospital Defensible Space and Evacuation*
- *Hospital Water Supply Roadside Expanded*
- *Glass Mountain & Hospital Forest Health*
- *Deer Park & Howell Mountain Roadside Expanded*
- *Old Howell Mountain to Linda Falls Trailhead WUI*
- *Old Howell Mountain Road Fuel Break*
- *Friesen Lakes Watershed Forest Health*
- *Friesen Drive (to Lookout Point) Roadside Expanded*
- *Summit Lake to Ink Grade Forest Health*
- *Summit Lake Drive Roadside Expanded*

NCFF is coordinating funding and implementation of several hazardous fuel mitigation treatments around the greater Angwin and Deer Park area. These currently include the four treatment areas associated with St. Helena Adventist Hospital (Glass Mountain & Hospital Forest Health, Hospital Defensible Space and Evacuation, Hospital Water Supply Roadside Expanded, and Hospital WUI), four treatment areas associated with the Friesen Lakes region (Friesen Lakes Watershed Forest Health, Friesen Drive (to Lookout Point) Roadside Expanded, Summit Lake to Ink Grade Forest Health, and Summit Lake Drive Roadside Expanded), and two treatment areas associated with Old Howell Mountain Road (Old Howell Mountain Road Fuel Break and Old Howell Mountain to Linda Falls Trailhead WUI). Finally, one treatment crosses much of the planning area, treating roadside fuels along Deer Park and Howell Mountain Road, from Silverado Trail to Pope Valley. The Glass Mountain & Hospital Forest Health treatment areas was submitted for a potential Congressionally Designated Spending (CDS), Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation Grant Program (PDM) on behalf of Congressman Thompson. The Hospital WUI, Hospital Water Supply, and PUC WUI projects were submitted to Senators Feinstein and Padilla for US Forest Service (USFS) funding. Notice of funding is expected sometime in 2024 upon approval of the federal budget. The Deer Park & Howell Mountain Roadside Expanded treatment area is included in a County of Napa FEMA Building Resilient Infrastructure and Communities (BRIC) sub-application. That funding agreement is expected in 2024 and would include 4 years of implementation. Beyond these anticipated funding sources, treatment implementation and maintenance would occur over the long term as funding and resources allow.

Hospital WUI
Treatment Type: *WUI*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Hospital WUI treatments are aimed at creating defensible space for the entirety of the treatment area. WUI fuel reduction would be located near structures. This project was submitted for funding in the 2023 CDS USFS reference above, for implementation between 2024-2027.

Hospital Defensible Space and Evacuation
Treatment Type: *Fuel Break*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Hospital Defensible Space and Evacuation treatments are aimed at creating defensible space for the entirety of the hospital treatment area. Fuel breaks would be installed on the periphery of the WUI treatment area. A roadside shaded Fuel Break would be created and maintained along Sanitarium Road. The intersection of Silverado trail and Glass Mountain Road is a critical confluence to protect to allow for emergency and public traffic flow on Silverado Trail and Glass Mountain Roads.

Hospital Water Supply Roadside Expanded
Treatment Type: *Fuel Break*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Hospital Water Supply Roadside Expanded would create a 220’ fuel break (110’ on each side) along an unnamed road for fire access and infrastructure protection for the St. Helena Hospital’s horizontal wells, water treatment infrastructure, and water lines. This fuel break passes through the Audubon Cheney ecological restoration treatment area managed by LTNC. This treatment area was submitted for CDS USFS funding.

Glass Mountain & Hospital Forest Health
Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Glass Mountain & Hospital Forest Health treatment area is aimed at reducing wildland fire hazard and restoring watersheds and forest health so that future fires do not burn with an intensity that could imperil water supply due to sedimentation and other fire-related impacts. This area consists of grass and oak woodlands on southwest slopes, and moderate to heavy conifer forest with heavy understory on northern and eastern slopes. The 2020 Glass Fire, which originated near here on North Fork Crystal Springs Road, and carries its name, burned heavily through this area and as a result the majority of vegetation is either dead or dying. This treatment area was submitted to CDS PDM funding.

Deer Park & Howell Mountain Roadside Expanded
Treatment Type: *Fuel Break*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

This project is a shaded fuel break running through the primary arteries of the community of Angwin, from Silverado Trail to Pope Valley. In 2020, two wildfires (Hennessey and Glass Fire) partially burned up to this corridor. In 2021, NCFF and CAL FIRE cleared vegetation along a 100-foot corridor through this project (measured at 50-feet from the centerline). This fuel break would expand the existing cleared area to a distance of 110’ from the centerline to improve evacuation route safety and firefighter access

along this corridor. This project was approved for County of Napa FEMA BRIC funding and is expected to begin in 2024-2025.

Old Howell Mountain to Linda Falls Trailhead WUI

Treatment Type: *WUI*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

This project would moderate future wildfire severity, reduce tree mortality, and prevent crown fires by reducing ladder fuels and increasing the health and growth of retained trees. It would also help to protect the vulnerable community of Angwin from a slope- or wind-driven fire originating from the south. This treatment area connects the LTNC Linda Falls project with Howell Mountain Road and Old Howell Mountain Road as well as other adjacent neighborhoods including Crestmont and Cade/Dunn/Brookside.

Old Howell Mountain Road Fuel Break

Treatment Type: *Fuel Break*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Old Howell Mountain Road is that portion of Howell Mountain Road between “Four Corners,” where it intersects with Deer Park Road, travelling south until it intersects with Silverado Trail Road. Approximately four miles of this road are no longer passable; repairing and treating this road is a priority project for CAL FIRE. A shaded fuel break would be created and maintained along Old Howell Mountain Road.

Friesen Lakes Region: Friesen Lakes Watershed Forest Health and Summit Lake to Ink Grade Forest Health

Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

The Friesen Lakes Watershed Forest Health treatment area consists of the Friesen Lakes and surrounding agricultural and oak/woodland areas. The project consists of ecological restoration for drinking watershed protection in the Friesen Lakes area. The adjacent Summit Lake to Ink Grade Forest Health treatment area is directly east of the Friesen Lakes Watershed Forest Health treatment area. The goal for both is to modify vegetation to reduce hazardous fuel, decrease fire intensity, and assist ground-based firefighting. Treatments are aimed at restoring watersheds so that future fires do not burn with an intensity that could imperil water supply due to sedimentation and other fire-related impacts. Combined these areas provide drinking water for Angwin, Deer Park, and St. Helena; many through private water companies. Ecological restoration would occur, especially in locations where the forest was severely burned in the 2020 Glass Fire, as well as other sensitive areas. Both projects are being submitted in October 2023 for federal Community Wildfire Defense Grant funding.

Friesen Drive (to Lookout Point) Roadside Expanded and Summit Lake Drive Roadside Expanded

Treatment Type: *Fuel Break*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Fuel Breaks would be created and maintained along Friesen Drive and Summit Lake Drive, bordering the ecological treatment areas adjacent to the Friesen Lakes Watershed Forest Health and Summit Lake to Ink Grade Forest Health treatment areas. The Summit Lake Drive Roadside Expanded

treatment area includes retreating a former fuel break at the northern end that connects Summit Lake Drive to Friesen Lakes Drive. Both roadside projects are being submitted in October 2023 for federal Community Wildfire Defense Grant funding.

LAND TRUST OF NAPA COUNTY

Land Trust of Napa County (LTNC) is the implementing entity for the following treatment areas:

- Aetna Springs Preserve Forest Health
- Aetna Springs Preserve Roadside
- Audubon Cheyney Preserve Forest Health
- Glendale Ranch/Linda Falls Preserve
- Okin Preserve Roadside/Evacuation Route
- Wildlake Preserve Forest Health
- Wildlake Preserve Roadside Expanded

LTNC protected natural areas owned or managed by LTNC around Angwin and Deer Park and included in this VTP are: Dunn-Wildlake Preserve, Duff Preserve, Aetna Springs Preserve, Linda Falls Preserve, Okin Preserve, and Audubon Cheney Preserve. LTNC is actively pursuing funding for all of these treatment areas, with none yet secured. Treatments were recently completed at portions of Aetna Springs and Linda Falls with NRCS and Coastal Conservancy funding.

Aetna Springs Preserve Roadside

Treatment Type: *Fuel Break (Shaded)*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

Activities in the Aetna Springs Preserve would consist of the shaded fuel break adjacent to Aetna Springs Road. Select herbicides may be used to control exotic invasive species both in meadows and forest understory, as well along roadsides. Target species include yellow star thistle *(Centaurea solstitialis),* hairy vetch *(Vicia villosa),* and stinkwort *(Dittrichia graveolens).*

Okin Preserve Roadside/Evacuation Route

Treatment Type: *Fuel Break (Shaded)*

Treatment Activities: *Manual, mechanical*

Activities in Okin Preserve would reduce hazardous fuels along an existing, maintained and strategically located road system that has been designated an alternate evacuate route for residents of the community of Angwin. The goal is to provide safer ingress/egress for residents and emergency services through this property during a wildfire event.

Wildlake Preserve Roadside Expanded

Treatment Type: *Fuel Break (Shaded)*

Treatment Activities: *Manual, mechanical, and herbicide*

Within the Dunn-Wildlake Preserve and the Duff Preserve, treatments are broken down into two treatment areas: Wildlake Preserve Roadside Expanded and Wildlake Preserve Forest Health. Treatment goals would enhance an existing, maintained, and strategically located road system within the wildland-urban interface near Angwin and Calistoga. It includes treating hazardous fuels along extensive ridgetop roads, to provide safer ingress/egress for firefighters and enhance existing roadside fuel breaks. This road system was heavily used for fire suppression during the 2020 LNU Lightning

Complex Fire (which included the Hennessey Fire) and 2020 Glass Fire (e.g., retardant drops, dozer line installation, general access to adjacent areas), the latter of which ultimately burned through the entire treatment area. Herbicide may also be used to control exotic invasive plant species in forest understory and along roadsides, including yellow star thistle (*Centaurea solstitialis*), eggleaf spurge (*Euphorbia oblongata*), French broom (*Genista monspessulana*) and Himalayan blackberry (*Rubus armeniacus*).

LTNC Ecological Restoration

Manual treatments, mechanical treatments, and prescribed burning treatments would be consistent with Treatment Activities, described above. Treatments would also include construction of wildlife habitat piles in openings. Vegetation removed through mastication would include small diameter trees and shrubs, primarily resprouting California bay laurel.

Three of four LTNC ecological restoration projects are focused on post-fire restoration: Wildlake Preserve Forest Health, Aetna Springs Preserve Forest Health, and Audubon Cheyney Preserve Forest Health. Treatments in these post-fire areas are designed to restore Douglas fir-dominated forest stands, Ponderosa pine-dominated forest stands, and mixed oak forest stands. These three preserves were heavily impacted by the 2020 Glass Fire. Throughout previously burned areas, removal of living plant material would be primarily focused on the thinning of dense re-sprouts from mid-story hardwoods including California bay laurel, madrone, bigleaf maple, and oak species. Removal of fire-killed trees would be selective and focused on smaller diameter material, allowing ample snag retention. In stands that had a substantial/dominant Ponderosa pine component pre-fire, treatments would include reforestation with Ponderosa pine. These areas are experiencing a major bark beetle outbreak, and many Ponderosa pine that survived the fire have since died from bark beetle infestation. Ponderosa pine forest is a rare habitat element in Napa County and is largely confined to the Howell Mountain area.

Finally, for these post-fire restoration projects, herbicide application may be used to control post-fire invasion of exotic invasive species both in meadows and forest understory, as well along roadsides. Target species include yellow star thistle *(Centaurea solstitialis),* hairy vetch *(Vicia villosa),* stinkwort *(Dittrichia graveolens),* and French broom *(Genista monspessulana*), English ivy *(Hedera helix),* greater periwinkle *(Vinca major),* and Himalayan blackberry *(Rubus armeniacus).*

Wildlake Preserve Forest Health

Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, and herbicide*

In addition to the above-described restoration treatments, select herbicides may also be used to control exotic invasive plant species in forest understory and along roadsides, including yellow star thistle (*Centaurea solstitialis*), eggleaf spurge (*Euphorbia oblongata*), French broom (*Genista monspessulana*) and Himalayan blackberry (*Rubus* armeniacus).

Aetna Springs Preserve Forest Health

Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

In addition to the above-described restoration treatments, select herbicides may also be used to control exotic invasive species both in meadows and forest understory, as well along roadsides. Target species include yellow star thistle *(Centaurea solstitialis),* hairy vetch *(Vicia villosa),* and stinkwort *(Dittrichia graveolens).*

Audubon-Cheyney Preserve Forest Health

Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide*

In addition to the above-described restoration treatments, select herbicides may also be used to control California bay laurel resprouts, and to control exotic invasive plant species including English ivy *(Hedera helix),* French broom *(Genista monspessulana),* greater periwinkle *(Vinca major),* and Himalayan blackberry *(Rubus armeniacus).*

Glendale Ranch/Linda Falls Preserve Forest Health

Treatment Type: *Ecological Restoration*

Treatment Activities: *Manual, mechanical, prescribed burning (broadcast and pile burning), herbicide, prescribed herbivory*

The goal of this fourth LTNC ecological restoration treatment area is aimed at increasing the resiliency of this unburned forest to future wildfire events and climate change effects and to reduce fuel loads. This is important given this area's close proximity to the residential areas in the community of Angwin.

In addition to the ecological restoration treatments described above, herbicide may be used here to control California bay laurel resprouts, as well as to control exotic invasive plant species including English ivy *(Hedera helix),* French broom *(Genista monspessulana),* greater periwinkle *(Vinca major)* and Himalayan blackberry *(Rubus armeniacus).*

Treatment Maintenance

Maintenance of the treatments would be conducted to control invasive plant growth, to provide safe conditions, or to reduce fuel loads. Maintenance would employ the same suite of treatment activities as initial treatments: prescribed burning, manual labor, mechanical treatments, prescribed herbivory, and/or prescribed herbicides. The interval between initial treatment or most recent treatment and subsequent maintenance would be based on site monitoring for the effectiveness of the initial treatment, available funding, and other factors. Current maintenance cycles are 2 to 3 years, with the intention of extending maintenance return intervals out 5 to 10 years whenever possible.

Maintenance prescriptions would be developed with consideration for the location's vegetation type (as determined by an RPF or Biologist) and its natural fire return interval (i.e., time since last burn is greater than the average fire return interval for the habitat type). These intervals vary by vegetation type. For example, chaparral vegetation types generally require a minimum of 10 years to recover after fire or fire-replicating treatments. Chaparral vegetation types dominated by obligate seeders generally require a minimum of 15 years to recover (Syphard et al. 2019), and common manzanita chaparral requires a minimum of 30 years to recover post fire (Abrahamson 2014). California mixed evergreen forest vegetation types require a minimum of five years to recover after a surface or low severity fire, 10 years minimum after a mixed severity fire, and 100 years minimum following a stand-replacing event (Creasy et al. 2005). California oak woodland vegetation types burn on average every 10 years at low severity and every 120 years for stand replacing fires (Sapsis and Bradley 2005). Blue Oak (*Quercus douglasii*) woodland vegetation type requires a minimum of 2 years to recover following a surface fire (McClaran and Bartolome 1989), whereas California oak-grass woodlands require a minimum of 5 years to recover (Standiford 2002). California low-elevation grasslands have an average fire return interval of 2 to 7 (USFS 2012). These grassland fires are stand replacing events (USFS 2012).

Retreatment activities will generally occur when the treatment area is outside of its natural fire return interval; however, some maintenance activities such as post-fire cleanup, hazardous tree removal, and invasive species removal may occur more frequently than the fire return interval. For example, if a common manzanita stand (which has a fire return interval of a minimum 30 years) has not been burned recently and is treated with mastication or prescribed burning, a period of 30 years would be needed for the stand to recover from those types of treatments (mastication or prescribed burning). This area

would not be completely avoided for the 30-year recovery time; hand treatments such as hand pulling of invasive species or hand thinning could still occur, but major vegetation disturbance activities which prevent the vegetation community from recovering (i.e., mastication or landscape burning) which changes the composition of the vegetation community would not occur.

Treatment activities that do not use fire (e.g., manual treatments, mechanical treatments) are considered “fire surrogates.” In the absence of additional data regarding mechanical and manual treatment activities, fire return interval is used as a proxy for disturbance (e.g., manual treatment may be analogous to a low severity fire, mechanical treatment may be analogous to a mixed severity fire). Pursuant to SPR BIO-5, all treatments in chaparral and coastal sage scrub, and the maintenance treatment interval will be designed to maintain habitat function of the specific chaparral vegetation alliance being treated and to avoid type conversion of chaparral. As a result, retreatment is generally anticipated to occur between 2 and 10 years following initial treatments in common vegetation types that are not sensitive natural communities or sensitive habitats (e.g., wetland, riparian, chaparral). Maintenance treatments would generally be at lower intensity and scale than initial treatments. Prior to implementing maintenance treatments, the natural fire return interval of the habitat(s) to be retreated will be determined. Initial treatments are designed to maximize the maintenance return interval to facilitate lower-cost and lower-effort maintenance in all treatment areas. Long-term maintenance objectives include the return of low-intensity prescribed fire, and maintenance of vegetation at a natural fire return interval.

THE CALIFORNIA VEGETATION TREATMENT PROGRAM ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	**Project Title:**	Angwin-Deer Park Wildfire Resilience Project
2.	**CAL FIRE Project Number:**	**8GG21611**
3.	**CalVTP I.D. Number:**	2022-30
4.	**Project Proponent Name and Address:**	The Napa Communities Firewise Foundation (NCFF) PO Box 440B St. Helena, California, 94574 Project Proponent Mike Wilson, Vegetation Management Program Director, NCFF 707-345-1947
5.	**Contact Person Information and Phone Number:**	Lead Agency Andrea Williams Senior Environmental Compliance Scientist Resource Management, Climate & Energy 715 P St., Sacramento, CA 95814 andrea.williams@fire.ca.gov (916) 202-5744
6.	**Project Location:**	The project is located in the city of Angwin, and in the surrounding areas of unincorporated Napa County, California. The center point is located at GPS 38.580419, -122.454369. The project's northern extent is along Aetna Springs Road; to the east, the project extends through PUC property off Las Posadas Rd, Angwin; to the south, the project extends to the intersection of Howell Mountain Road and Conn Valley Road in unincorporated Napa County, and to the west, the project extends through the edge of Wildlake Preserve in Bell Canyon, near Oak Hill Mine Trailhead.
7.	**Total Area to be Treated (acres):**	Up to **5,190.9** acres

8. **Description of Project:**

Initial treatments would include fuel break, WUI fuel reduction, and ecological restoration treatments involving manual treatments, mechanical treatments, prescribed burning, herbicide application, and prescribed herbivory. See, "Treatment Description" for additional details. Treatment maintenance of the areas treated under the proposed project would generally be done to continually promote and sustain the objectives achieved by the initial treatment(s).

9. Treatment Types

☒ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

10. Treatment Activities

☒ Prescribed Burning (Broadcast), 4,219.1 acres

☒ Prescribed Burning (Pile Burning) 4,219.1acres

☒ Mechanical Treatment, 5,190.9 acres

☒Manual Treatment, 5,190.9 acres

☒Prescribed Herbivory, 3,062.9 acres

☒Herbicide Application, 5,177.4 acres

11. Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

12. Geographic Scope

☐ The treatment site is entirely within the CalVTP treatable landscape

☒ The treatment site is NOT entirely within the CalVTP treatable landscape

13. Surrounding Land Uses and Setting:

The proposed CalVTP treatments would occur on public and private land from Aetna Springs in the north to Old Howell Mountain Road to the south. The treatments are located in the community of Angwin, the nearby Deer Park neighborhood, and the surrounding unincorporated areas of Napa County. Elevation ranges from 202'-2,894'. Portions of the proposed treatment area have burned in the 2017-2020 fire seasons, while others have not burned for many years. The surrounding land use is characterized by agricultural development (vineyards), open space, and private residences. Land ownership varies from urban-sized parcels to several-hundred-acre holdings. The Pacific Union College Forest is actively managed for timber. Portions of the project area experience significant recreational uses, especially those managed by PUC and LTNC.

14. Other public agencies whose approval is required:

Smoke management plan would be prepared for Bay Area Air Quality Management District, when required.

Burn permits from Bay Area Air Quality Management District, when required.

Burn permits from CAL FIRE, when required.

The proposed project is not within the Coastal Zone

15. Native American Consultation. The Board of Forestry and Fire Protection completed consultation pursuant to Public Resources Code Section 21080.3.1 during preparation of the Program EIR; however, CalVTP SPR CUL-2 requires further tribal coordination during PSA preparation. Pursuant to SPR CUL-2, Native American tribal contacts in Napa County were contacted on December 14, 2022. A follow-up request was sent on September 26, 2023 when approximately 550 acres were added to the project area. Suscol Intertribal Council was also contacted. They responded on November 7th, 2023 stating that the Council had no findings related to the project. No responses were received from any other Native American tribes.

16. Use of the PSA for Treatment Maintenance

Prior to implementing a maintenance treatment, the implementing entity would 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 would be considered by the implementing entity in light of potentially changed conditions or circumstances. Where the implementing entity or lead agency determines the PSA is no longer sufficiently relevant, the implementing entity or lead agency would 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 implementing entity would update the PSA at the time a maintenance treatment is needed when more than 10 years have passed since the approval of the PSA or the latest PSA update. For example, the implementing entity may conduct a reconnaissance survey to verify conditions are substantially similar to those anticipated in the PSA. Updated information should be documented. See “Treatment Maintenance” above for additional detail.

17. Standard Project Requirements and Mitigation Measures.

☒ All applicable SPRs and Mitigation Measures are feasible and will be implemented

☒ There is NO new information which would render mitigation measures previously considered infeasible or not considered in the CalVTP Program EIR now feasible OR such mitigation measures have been adopted. [Guidelines Sec.15162(a)(3); PRC Sec. 21166(c)]

☐ All applicable SPRs and Mitigation Measures are NOT feasible or will NOT be implemented (provide explanation)

DETERMINATION (To be completed by the CEQA lead agency)

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

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

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

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

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

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

DocuSigned by:
John Melvin
Signature 9360EE66A04422...

1/5/2024
Date

John Melvin, Assistant Deputy Director
Printed Name

Title

CALIFORNIA DEPARTMENT OF
FORESTRY AND FIRE PROTECTION (CAL FIRE)

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for each Impact, Standard Project Requirement (SPR) and Mitigation Measure (MM) identified in the Project-Specific Analysis Checklist (PSA Checklist). The information provides clarity for review and/or provides direction to the field staff that will implement the project utilizing the checklist (persons familiar with the project and preparation of the document may be different through the life span of the document). Answers should consider whether the proposed project would result in new or more substantial environmental effects than described in the CalVTP Program EIR, after incorporation of applicable SPRs and MM required by the CalVTP Program EIR.
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and short-term as well as long-term impacts. Refer to the applicable resource analysis section in the CalVTP Program EIR for each environmental topic.
3. Once the project proponent has evaluated the environmental effect that may occur, then the checklist answers must indicate whether the impact is:

   (Definitions located in Chapter 3 – "Environmental Settings, Impacts, and Mitigation Measures, 3.1.4 – Terminology Used In the Program EIR")

   - **Less Than Significant (LTS)** - An impact either on its own or with incorporation of SPRs, does not exceed the defined thresholds of significance (no mitigation required), or that is potentially significant and can be reduced to less than significant through implementation of feasible mitigation measures.
   - **Less Than Significant *with* Mitigation (LTSM)** - An impact was identified within the Program EIR which was viewed in totality as potentially significant and/or significantly unavoidable and the mitigation measures and SPRs and MMs provided in the Program EIR will be implemented mitigating to a point of less than significance.
   - **Potential Significant (PS)** - An impact treated as if it were a significant impact. "Potentially" is used to convey that not every qualifying treatment will result in impacts to the reasonably maximum degree that they are disclosed in this Program EIR.
   - **Potentially Significant and Unavoidable (PSU)** - An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level. "Potentially" is used to convey that not every qualifying treatment will result in impacts to the reasonably maximum degree that they are disclosed in this Program EIR
   - **Significantly Unavoidable (SU)** - An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level.
   - **Not applicable (N/A)**

   If the impact is equal to or less than the impact identified in the Program EIR, the Program EIR can be utilized without a Negative Declaration, Mitigated Negative Declaration or EIR. If there are one or more entries where the impact is evaluated to be greater than the impact in the Program EIR, additional documentation is required.
4. Where a Negative Declaration, Mitigated Negative Declaration is required, the environmental review would be guided by the directions for use of the Program EIR with later activities in Section 15168. Where an EIR is required, the environmental review would be guided by Sections 15162 and 15163. When preparing any environmental document, the environmental analysis may incorporate by reference the analysis from the CalVTP Program EIR and focus the environmental analysis solely on issues that were not addressed in the CalVTP Program EIR.
5. Project proponents should incorporate into the PSA checklist references to information sources for potential impacts. Include a list of references cited in the PSA and make copies of such references available to the public upon request.

6. Standard Project Requirements (SPR) and Mitigations Measures (MM).

   - **Applicable (Yes/No).** Document whether the SPR or mitigation measure is applicable to the project (Yes or No). The applicability should be substantiated in the Environmental Checklist Discussion.
   - **Implementing Entity**. Most cases this will be CAL FIRE. The implementing entity is the individual or organization responsible for carrying out the requirement. This could include the project proponent's project manager, a technical specialist (e.g., archeologist or biologist), a vegetation management contractor, a partner agency or organization, or other entities that are primarily responsible for carrying out each project requirement.
   - **Verifying/Monitoring Entity**. Most cases this will be CAL FIRE. The verifying/monitoring entity is the individual or organization responsible for ensuring that the requirement is implemented. The verifying/monitoring entity may be different from the implementing entity.

   NOTE: the cited SPRs and MMs are summarized to manage the template's size. Refer to the approved CalVTP language attached for the full list of requirements.

ENVIRONMENTAL CHECKLIST

EC-1 AESTHETICS AND VISUAL RESOURCES

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
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	Impact AES-1, 3.2	LTS	SPR AES-2 SPR AQ-2, 3 SPR REC-1	Yes	LTS	☒

Initial and maintenance treatments would include prescribed burning, mechanical treatment, manual treatment, and targeted ground application of herbicides and prescribed herbivory. The potential for these treatment activities to result in short-term degradation of the visual character of a treatment area was examined in the Program EIR. The nearest eligible state scenic highway to the project area is State Route (SR) 29, which is located approximately 1.5 miles east of the southern boundary of the project area (Caltrans 2022). The proposed treatments would occur on private land, including areas accessible to the public. Publicly accessible viewpoints within and near the project area from which treatments would be visible are located along public trails (e.g., Oat Hill Mine Trailhead) and recreation areas (e.g., Pacific Union College Forest), SR 29, 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 temporarily visible from public viewpoints and an eligible state scenic highway (SR 29). The potential for the project to result in short-term substantial degradation of the visual character of the project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside 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. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	Impact AES-2, 3.2	LTS	SPR AES-1 SPR AES- 3 SPR AD-4 SPR REC-1	Yes	LTS	☒

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 Program EIR. Public viewpoints of the project area include publicly accessible trails and recreation areas, SR 29, 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 substantial adverse change or degrade the currently visual character of the landscape.

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

Impact AES-3: Result in Long-Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Non-Shaded Fuel Break Treatment Type	Impact AES-3, 3.2	SU	MM AES-3	No	N/A	☒

This impact does not apply to the proposed project because no nonshaded fuel breaks are proposed.

Other Impacts to Aesthetics: Would the project result in other impacts to aesthetics that are not evaluated in the CalVTP PEIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/Monitoring Entity
SPR AES-1 Vegetation Thinning and Edge Feathering: This SPR only applies to mechanical and manual treatment activities within all treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

PRIOR – Pre-field work to determine treatment types and boundaries will consider topographical features with the intent to create irregular vegetation densities and treatment area size to mimic natural conditions.

DURING – If there are areas within the mechanical treatment areas that cannot be completed with the use of equipment due to equipment limitations, they will be treated with manual treatment methods.

SPR AES-2 Avoid Staging within Viewsheds: This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Public viewpoints of the project area include publicly accessible trails and recreation areas, SR 29, and other public roadways. 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 substantial adverse change or degrade the currently visual character of the landscape.

SPR AES-3 Provide Vegetation Screening: This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

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.

MM AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

Mitigation Measure AES-3 does not apply to this project, because there are no non-shaded fuel breaks proposed.

EC-2 AGRICULTURE AND FORESTRY RESOURCES

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact AG-1: Result Directly 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	Impact AG-1, 3.3	LTS	N/A	Yes	LTS	☒

Treatments would include WUI fuel reduction, fuel breaks, and ecological restoration through use of manual treatment, mechanical treatment, prescribed burning (pile and broadcast), targeted ground herbicide application, and prescribed herbivory (grazing). WUI fuel reduction treatments would remove dead, dying, hazard, and diseased trees, as determined by qualified RPF or biologist, of any diameter and healthy trees up to 12 DBH to promote a healthier residual stand following treatments. The creation of shaded fuel breaks would involve thinning 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 8-10 feet high, and spaces of 20-25 feet would be created between trees. All shaded fuel breaks would occur within 110 feet of existing roads, trails, and bulldozer lines. Ecological restoration treatment would focus on thinning small diameter trees from overstocked forest units and/or post-fire resprouts to promote the establishment of mature trees and a healthy forest structure and improve wildlife movement and habitat.

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

Other Impacts to Agriculture and Forest Resources: Would the project result in other impacts to agriculture and forest resources that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

EC-3 AIR QUALITY

Napa County is in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Pursuant to SPR AQ-2, the implementing entity would prepare a smoke management plan and submit it to BAAQMD prior to implementing any prescribed burning treatment. In addition, the implementing entity would prepare a burn plan as required by SPR AQ-3, which would include fire behavior modeling. Also, SPR AQ-6 requires the implementation of an Incident Action Plan, which identifies burn dates, burn hours, weather limitations, specific burn prescription, communication plan, medical plan, traffic plan, and other special instructions required by BAAQMD. The Incident Action Plans would be prepared by the implementing entity for all proposed prescribed burning treatments. The Incident Action Plans would also identify the contact personnel with BAAQMD to coordinate on-site briefings, posting notifications, and weather monitoring during burning.

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	Impact AQ-1, 3.4	PSU	SPR AD- 4 SPR AQ-2, 3, 4, 5, 6 MM AQ- 1 SPR AQ-1	Yes	PSU	☒

Use of vehicles, mechanical equipment, broadcast burning, and pile burning, during initial and maintenance treatments would result in emissions of criteria pollutants that could exceed California Ambient Air Quality Standard (CAAQS) or National Ambient Air Quality Standard (NAAQS) thresholds. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the Program EIR. Emissions of criteria air pollutants related to the proposed treatment are within the scope of the Program EIR because the associated equipment and duration of use are consistent with those analyzed in the Program EIR. The use of an air curtain burner, carbonator, or gasifier to process biomass is proposed pursuant to Mitigation Measure GHG-2. Evaluation of criteria air pollutant emissions from air curtain burning conducted by Ascent (2022) indicates that smoke and criteria air pollutant emissions can be substantially reduced, compared to open pile burning. Use of an air curtain burner, carbonator, or gasifier substantially reduces reactive organic gases (ROG) and particular matter (PM) emissions ranging between a 71 and 100 percent reduction. For oxides of nitrogen (NO_X), air curtains and carbonation are estimated to reduce NO_X emissions by at least 73 and 93 percent, respectively. NO_X reductions are only marginally lower for biomass processed through gasification with a 3 percent reduction compared to pile burning (Ascent 2022).

The SPRs applicable to this treatment project are AD-4, and AQ-1 through AQ-4, and AQ-6. The emission reduction techniques proposed in Mitigation Measure AQ-1 would be implemented to the extent feasible. However, because the treatments would be implemented by non-profit organizations with limited funding, procuring or paying additional amounts for contractors that use equipment meeting the latest efficiency standards, including meeting the US Environmental Protection Agency's (EPA) Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology may be cost prohibitive. Carpooling would be encouraged by the implementing entity, but because crews may not all be employed with the same company and due to the project's location in a rural area it may not be feasible for most workers.

Based on available information about emissions from specialized biomass processing technologies, these technologies offer the opportunity to substantially reduce local exposure to PM from smoke, a potentially beneficial difference compared to pile burning, and toxic air contaminants compared to open pile burning, and in some scenarios also reduced greenhouse gas emissions. Impact AQ-1 must still be recognized as potentially significant and unavoidable because of uncertainties in the extent of their use.

As described under “Purpose of the PSA/Addendum,” CAL FIRE 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 to ensure personnel and public safety. 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. The revisions proposed would not result in any change to emissions during burns in comparison to the SPR as presented in the PEIR. Therefore, 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 Program EIR.

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

Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	Impact AQ-2, 3.4	LTS	SPR HAZ- 1 SPR NOI- 4 SPR NOI- 5 SPR AQ-1	Yes	LTS	☒

Use of mechanical equipment during initial and maintenance treatments could expose people, such as hikers and recreationists using publicly accessible trails (e.g., Oat Hill Mine Trailhead) and recreation areas (e.g., Pacific Union College Forest) to diesel particulate matter emissions. However, treatment activities would not take place near the same people for an extended period such that prolonged exposure would occur. The potential to expose people to diesel particulate matter emissions was examined in the Program EIR. Diesel particulate matter emissions from the proposed treatments are within the scope of the Program EIR because the exposure potential is the same as analyzed in the 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 Program EIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors (i.e., exposure potential) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. SPRs applicable to this treatment are HAZ-1, NOI-4, and NOI-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	Impact AQ-3, 3.4	LTS	SPR AQ- 1, 4, 5	Yes	LTS	☒

Use of vehicles, mechanical equipment, and prescribed burning during treatments would involve ground-disturbing activities. The potential to expose people to naturally occurring asbestos (NOA)-containing fugitive dust emissions was examined in the Program EIR. Portions of the project area are underlain by serpentine soils (see Section EC-6, “Geology, Soils, Paleontology, and Mineral Resources”). The Okin Preserve Roadside/Evacuation Route treatment area contains serpentine soils. Serpentine soils are also mapped along the northern boundary of the Aetna Springs Preserve Forest Health and Aetna Springs Preserve Roadside treatment areas (NRCS 2019). These types of soils could potentially contain thin veins of asbestos fibers that can become airborne when disturbed. In accordance with SPR AQ-5, no ground-disturbing activities would occur in these areas unless an Asbestos Dust Control Plan (pursuant to 17 CCR Section 93105) is prepared and implemented. Potential NOA exposure from the proposed treatments is within the scope of the activities and impacts addressed in the Program EIR because the types of ground-disturbing activities and the exposure potential is consistent with the impacts analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	Impact AQ-4, 3.4	PSU	SPR AD- 4 SPR AQ- 1, 2, 6	Yes		☒

Prescribed burning that could expose people to toxic air contaminants during initial and maintenance treatments was examined in the Program EIR and found to be potentially significant and unavoidable after the application of all feasible mitigation measures because unpredictable changes in weather can occur during prescribed burns resulting in short-term exposure of people to concentrations of toxic air contaminants and associated levels of acute health risk with a Hazard Index greater than 1.0. The use of biomass processing technologies (air curtain burners, gasifiers, and carbonators) is proposed, pursuant to Mitigation Measure GHG-2, to reduce smoke emissions and associated toxic air contaminants in comparison to pile burning. Toxic air contaminants resulting from the combustion of biomass are generally organic in nature and are, therefore, a subset of ROG emissions. Based on evaluation conducted by Ascent (2022), use of biomass processing technologies would reduce ROG emissions by at least 96 percent when compared to pile burning of equivalent areas. Therefore, the exposure of persons to toxic air contaminants (TACs) and related health risks would likely be substantially lower with the use of biomass processing technologies as compared with pile burning.

As described under “Purpose of the PSA/Addendum,” CAL FIRE 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 to ensure personnel and public safety. 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. The revisions proposed would not result in any change to emissions of toxic air contaminants during burns in comparison to the SPR as presented in the PEIR. Therefore, 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 Program EIR.

The duration and parameters of the prescribed burns are within the scope of the activities addressed in the Program EIR, and impacts would be reduced with the use of biomass processing technologies. Within the BAAQMD, air quality conditions are consistent with those analyzed in the Program EIR for Napa County. Therefore, the potential for exposure to toxic air contaminants is also within the scope the Program EIR. SPRs applicable to these treatment activities are AD-4, AQ-1, AQ-2, AQ-3, and AQ-6. All feasible measures to prevent and minimize smoke emissions, as well as exposure to smoke, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the air quality conditions present and air basins in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	Impact AQ-5, 3.4	LTS	SPR HAZ- 1 SPR NOI- 4, 5 SPR AQ-1	Yes	LTS	☒

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

Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	Impact AQ-6, 3.4	PSU	SPR AD- 4 SPR AQ- 1, 2, 6	Yes		☒

Prescribed burning during initial and maintenance treatments could expose people to objectionable odors. The potential to expose people to objectionable odors from prescribed burning was examined in the Program EIR. and found to be potentially significant and unavoidable after the application of all feasible mitigation measures because short-term exposure to odorous smoke emissions from unpredictable weather changes could occur. The use of biomass processing technologies proposed pursuant to Mitigation Measure GHG-2 would reduce smoke emissions and associated odors in comparison to pile burning. When compared to pile burning the proposed biomass technologies would substantially reduce smoke through filtering (i.e., air curtains) or eliminate smoke and associated odors altogether (i.e., gasifiers, pyrolysis).

As described under “Purpose of the PSA/Addendum,” CAL FIRE 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 to ensure personnel and public safety. 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. The revisions proposed would not result in any change to odor emissions during burns in comparison to the SPR as presented in the PEIR. Therefore, 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 Program EIR.

The duration and parameters of the prescribed burning treatments are within the scope of the activities addressed in the Program EIR, and impacts would be reduced with the use of proposed biomass processing technologies. Therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the Program EIR. SPRs that are applicable to this treatment project are AD-4, AQ-2, AQ-3, and AQ-6. All feasible measures to prevent and minimize smoke odors, as well as exposure to smoke odors, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the 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. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts to Air Quality: Would the project result in other impacts to air quality that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR AQ-1 Comply with Air Quality Regulations: This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

All pile and broadcast burns are required to comply with applicable air quality regulations for the air district with jurisdiction in the project area. A Smoke Management Plan will be submitted to BAAQMD prior to burning and a burn permit from the BAAQMD will be obtained.

SPR AQ-2 Submit Smoke Management Plan: This SPR applies only to prescribed burning treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

The project proponent will prepare a Smoke Management Plan to be submitted to the BAAQMD prior to treatments.

SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. This SPR applies only to prescribed burning treatment activities and all treatment types**.**	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

A burn plan will be prepared by the project proponent prior to prescribed burning activities.

SPR AQ-4 Minimize Dust: This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

To minimize dust during treatment activities, the project proponent will implement the measures listed under SPR AQ-4 in Attachment A.

SPR AQ-5 Avoid Naturally Occurring Asbestos: This SPR applies to all treatment activities and treatment types.		NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

No ground-disturbing activities would occur in areas mapped with serpentine soils unless an Asbestos Dust Control Plan (pursuant to 17 CCR Section 93105) is prepared and implemented. Naturally occurring asbestos within the project area shall be avoided.

SPR AQ-6: Prescribed Burn Safety Procedures: Prescribed burns will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP).	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

A burn boss will prepare an Incident Action Plan which identifies burn dates; burn hours; weather limitations; specific burn prescription; communication plan; medical plan; traffic plan; and other special instructions. The Incident Action Plan will also identify personnel to coordinate with the local air district for onsite briefings, posting notifications, and weather monitoring during burning.

MM AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

The components of Mitigation Measure AQ-1 that have been determined by NCFF, LTNC, and PUC to be feasible and would be implemented to reduce emissions include use of gasoline-powered equipment rather than diesel-powered equipment whenever possible and encouraging carpooling to the project area. Equipment meeting Tier 4 emission standards and the use of renewable diesel fuel would be implemented to the extent feasible.

EC-4 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources	Impact CUL-1, 3.5	LTS	SPR CUL-1, 7, 8 SPR AD- 3	Yes	LTS	☒

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

Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources	Impact CUL-2, 3.5	SU	SPR CUL-2, 3, 4, 5, 8 MM CUL- 2 SPR AD- 3	Yes	SU	☒

Vegetation treatment would include prescribed burning and mechanical treatments using heavy equipment that could churn up the surface of the ground during treatment as vegetation is removed; these activities may result in damage to known or previously unknown archaeological resources. The NWIC records search revealed 21 previously recorded archaeological sites, consisting of precontact sites (lithic scatters, bedrock milling features, habitation sites, and obsidian workshops) and historic-era archaeological sites (foundations and structure pads, water conveyance systems, roads, walls and fences, ranch and orchard components, and trash scatters). None of these sites have been evaluated for eligibility for listing in the CRHR. Therefore, it is not known whether the sites are considered resources under CEQA. A survey would be conducted before treatment pursuant to SPR CUL-4 to identify any previously unrecorded archeological resources and identified resources would be avoided according to the provisions of SPR CUL-5.

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

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

Impact CUL-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource	Impact CUL-3, 3.5	LTS	SPR CUL-1, 2, 3, 4, 5, 6, 8 SPR AD-3	Yes	LTS	☒

Native American contacts in Napa County were contacted on December 14, 2022, and included Daniel Gomez, Chairman, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community; Clifford Mota, Tribal Preservation Liaison, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community; Charlie Wright, Chairperson, Cortina Rancheria – Kletsel Dehe Band of Wintun Indians; Donald Duncan, Chairperson, Guidiville Indian Rancheria; Sally Peterson, Tribal Historic Preservation Officer, Middletown Rancheria; Jose Simon, Chairperson, Middletown Rancheria of Pomo Indians; Scott Gabaldon, Chairperson, Mishewal-Wappo Tribe of Alexander Valley; Monica Arellano, Vice Chairwoman, Muwekma Ohlone Indian Tribe of the SF Bay Area; Leona Willams, Chairperson, Pinoleville Pomo Nation; Erica Carson, Tribal Historic Preservation Officer, Pinoleville Pomo Nation; Yvonne Perkins, Tribal Historic Preservation Officer, Yocha Dehe Wintun Nation; Anthony Roberts, Chairperson, Yocha Dehe Wintun Nation; and Laverne Bill, Director of Cultural Resources, Yocha Dehe Wintun Nation. No responses were received from any Native American tribes as of February 28, 2023. On November 7, 2023, the same tribes were renotified of the project. Per CAL FIRE's tribal notification list for Napa County, Charlie Toledo, Executive Director, of the Suscol Intertribal Council, was also notified. Suscol Intertribal Council responded on November 7th, 2023 stating that the council had no findings related to the project and providing their support. The Middletown Rancheria contacted NCFF on December 11, and NCFF agreed to coordinate closely with Middletown Rancheria during project implementation. Communication was ongoing during preparation of this PSA/Addendum. The Yocha Dehe Wintun Nation also responded and stated that the proposed project was not within the aboriginal territories of the Yocha Dehe Wintun Nation, and therefore declined to comment on the project. No responses were received from any other Native American tribes as of December 21, 2023.

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

Impact CUL-4: Disturb Human Remains	Impact CUL-4, 3.5	LTS	SPR AD- 3	Yes	LTS	☒

Vegetation treatment activities would include mechanical treatments using heavy equipment; these treatments may use skid steers, excavators, and dozers, which could uncover human remains. The NWIC records search did not reveal any burials or sites containing human remains. The potential for treatment activities to uncover human remains was examined in the Program EIR. This impact is within the scope of the Program EIR, because the treatment activities and intensity of ground disturbance are consistent with those analyzed in the Program EIR. Additionally, consistent with the Program EIR, the project would comply with California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097 in the event of a discovery. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the potential for uncovering human remains during implementation of the treatment project is essentially the same within and outside the treatable landscape and treatment activities; therefore, the impact related to disturbance of human remains is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts to Archeological, Historical, and Tribal Cultural Resources: Would the project result in other impacts to archeological, historical, or tribal cultural resources that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR CUL-1 Conduct Record Search: For treatments led by CAL FIRE, an archaeological and historical resource record search will be conducted per the "Archaeological Review Procedures for CAL FIRE Projects" (current edition dated 2010). This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

Consistent with SPR CUL-1, a records search of the approximately 5,190.9-acre project area and a 0.25-mile buffer surrounding the project area was conducted at the Northwest Information Center (NWIC) on November 30, 2022 (NWIC File No.: 22-0731) and on October 23, 2023 (NWIC File No.: 23-0418). The records search revealed 21 previously recorded precontact archaeological sites, eight historic-era archaeological sites, two multicomponent archaeological sites containing both historic and prehistoric elements, and three historic features. One of the historic features, a bridge, is listed on the California Register of Historical Resources (CRHR). Five of the precontact sites are isolates; isolates are defined as one or two artifacts occurring by themselves and not associated with an archaeological site. Because they have no historical context, isolates are not eligible for listing in the CRHR and are therefore not considered resources under CEQA.

SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List, which may be obtained from the CAL FIRE website, as appropriate. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On December 14, 2022, letters or emails inviting the tribes to consult were sent to the thirteen tribal representatives indicated by NAHC. No responses were received from any Native American tribes as of February 28, 2023. A December 6, 2022 search of NAHC's sacred lands database returned positive results. On November 7, 2023, the same tribes were renotified of the project. Per CAL FIRE's tribal contact list, the Suscol Intertribal Council was also notified. Suscol Intertribal Council responded on November 7th, 2023 stating that the council had no findings related to the project. The Middletown Rancheria contacted NCFF on December 11, and NCFF agreed to coordinate closely with Middletown Rancheria during project implementation. Communication was ongoing during preparation of this PSA/Addendum. The Yocha Dehe Wintun Nation also responded and stated that the proposed project was not within the aboriginal territories of the Yocha Dehe Wintun Nation, and therefore declined to comment on the project. No other responses were received from any Native American tribes as of December 21, 2023.

SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. This SPR applies to all treatment activities and treatment types	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

Pre-field research included review of site records from the California Historical Resources Information System (CHRIS) and reference materials.

SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically trained resource professional or qualified archaeologist to conduct a site-specific survey of the treatment area. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

Pursuant to SPR CUL-4, an archaeological survey for the project area will be conducted by an archaeologically trained resource professional or qualified archaeologist prior to the start of treatments.

SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Culturally affiliated tribes will be notified if any cultural resources are identified that cannot be avoided.

SPR CUL-6 Treatment of Tribal Cultural Resources: If a tribal cultural resource is identified within a treatment area, and cannot be avoided, the project proponent in consultation the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Tribal cultural resources will be avoided. No cultural resource concerns were raised by any tribes.

SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Built environment historical resources, if present within the project area, will be avoided during project implementation.

SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

NCFF, LTNC, and/or PUC will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological or tribal cultural resources prior to the start of treatments.

MM CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified professional archaeologist or CAL FIRE archeological trained Registered Professional Forester will assess the significance of the find.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Should project activities reveal cultural or archaeological resources, CAL FIRE’s standard post-review discovery procedures will be implemented, which require work to cease within 100 feet of the discovery and the Unit Archaeologist and Unit Forester to be contacted. Work will not resume until direction is provided by the Archaeologist.

EC-5 BIOLOGICAL RESOURCES

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	Impact BIO-1, 3.6	LTSM	SPR BIO-1, 2, 7, 9 SPR AQ-3, 4, SPR GEO-1, 3, 4, 5, 7 SPR HYD-5 MM BIO-1a, 1b, 1c SPR AD- 1	Yes	LTSM	☒

Treatment activities (i.e., manual treatments, mechanical treatments, prescribed burning, herbicide, prescribed herbivory) could result in adverse effects on special-status plant species (see Attachment B for additional detail). The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR. This impact on special-status plants is within the scope of the Program EIR, because, within the boundary of the project area, habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special-status plants is also the same, as described above. Biological resource SPRs that apply to project impacts under Impact BIO-1 are SPRs AQ-3, AQ-4, BIO-1, BIO-2, BIO-7, and BIO-9. Biological resource mitigation measures that apply to project impacts under Impact BIO-1 are Mitigation Measure BIO-1a and Mitigation Measure BIO-1b. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	Impact BIO-2, 3.6	LTSM/ PSU (all wildlife species except bumble bees) LTSM (bumble bees) PSU	SPR BIO-1, 2, 3, 4, 5, 8, 10, 11 SPR HYD-1, 3, 4, 5 SPR HAZ-5, 6 MM BIO-2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 3b, 3c, 4 SPR AD- 1	Yes	LTSM	☒

Treatment activities (i.e., manual treatments, mechanical treatments, prescribed burning, herbicide, prescribed herbivory) could result in adverse effects on special-status wildlife species (see Attachment B for additional detail). The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the Program EIR.

The 2019 Program EIR 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 and significant impacts could not be ruled out. In the 2019 Program EIR, Mitigation Measure BIO-2g was proposed as a feasible set of actions to reduce potentially significant impacts on special-status bumble bees. At the time, techniques for detecting overwintering and nesting bumble bees and determining the occurrence and severity of impacts were limited. The statewide scope of potential effects analyzed, and for purposes of good faith and full disclosure under CEQA, this impact was designated in the Program EIR as potentially significant and unavoidable. However, addressing a potential effect at a project-specific level may result in a different significance conclusion if supported by evidence. In 2023, CDFW developed survey and avoidance techniques based on best available research to avoid impacts to this species; these have been integrated into the project-specific implementation of SPR BIO-1, SPR BIO-10, and Mitigation Measure BIO-2g. With these additions, implementation of Mitigation Measure BIO-2g and applicable SPRs will avoid potential mortality, injury, and other disturbances to habitat function and to individual Crotch's bumble bee if the species is present during treatment activities. Therefore, this PSA concludes that the potential for adverse impacts on habitat function for Crotch's bumble bee is less-than-significant with mitigation. These potential effects would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

California red-legged frog is not expected to occur in the project area because no modern occurrences of this species are documented in the vicinity of the project area and occurrences previously documented closest to the project are identified in the CNDDB as "extirpated" and "possibly extirpated" from the Napa River near Calistoga and Pope Valley (CNDDB 2022). There is no evidence of recent occupancy by red-legged frog in the project area,; however, this species is included in the project discussion in Attachment B because the northern 0.9 mile of the Deer Park and Howell Mountain Roadside Expanded treatment area overlaps mapped "non-critical habitat" sections of the California Red-Legged Frog Injunction (Center for Biological Diversity v. US EPA, 2006, Case No. 02-1580-JSW) areas. Inclusion of this portion of the project in the injunction area is based on a historic occurrence of California red-legged frog which is considered possibly extirpated (CNDDB 2022). Although the species is not expected to occur in the project area, this injunction applies to these portions of the project.

This proposed project's impact on special-status wildlife is within the scope of the Program EIR, because the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented

in the Program EIR. However, within the boundary of the project area, the existing environmental conditions and general habitat characteristics present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special-status wildlife is also the same, as described above. Biological resource SPRs that apply to project impacts under Impact BIO-2 are SPR BIO-1, SPR BIO-2, SPR BIO-4, SPR BIO-5, SPR BIO-9, SPR BIO-10, SPR BIO-11, SPR GEO-1, SPR HYD-3, 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-2e, and Mitigation Measure BIO-2g. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function	Impact BIO-3, 3.6	LTSM	SPR BIO-1, 2, 3, 4, 5, 6, 8, 9 SPR HYD-4, 5 MM BIO-3a, 3b, 3c SPR AD- 1	Yes	LTSM	☒

Treatment activities (i.e., manual treatments, mechanical treatments, prescribed burning, herbicide use, and prescribed herbivory) could result in adverse effects on sensitive habitats, including riparian habitat and designated sensitive natural communities (see Attachment B for additional detail). The potential for treatment activities to result in adverse effects on sensitive habitats, as described above, was examined in the Program EIR. This impact on sensitive habitats is within the scope of the Program EIR, because, within the project area boundary, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape; therefore, the potential impact on sensitive habitats is also the same. Pursuant to SPR HYD-4, the extent of treatment activities would be limited within riparian habitat: work would be limited within the WLPZ, at least 75 percent surface cover would be retained, and no mechanical treatment would be allowed (Attachment A). Additionally, SPR BIO-4 requires that treatments in riparian habitats retain at least 75 percent of the overstory and 50 percent of native understory vegetation and limits removal of riparian vegetation to the removal of uncharacteristic or undesired fuel loads. Mitigation Measure BIO-3a will be applied to the project and requires that the project is designed to avoid loss of sensitive natural communities and oak woodlands, which would avoid potential impacts to habitat function in sensitive natural communities and riparian areas. Biological resource SPRs that apply to project impacts under Impact BIO-3 are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-9, and HYD-4. Mitigation measure BIO-3a also applies to project impacts under Impact BIO-3.With implementation of these SPRs and the mitigation measure, the project would avoid substantial effects on riparian habitats or sensitive natural communities through direct loss or degradation or through loss of habitat function. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	Impact BIO-4, 3.6	LTSM	SPR BIO-1 SPR HYD-1, 3, 4, MM BIO-4 SPR AD-1	Yes	LTSM	☒

Treatment activities (i.e., manual treatments, mechanical treatments, prescribed burning, herbicide use, and prescribed herbivory) could result in adverse effects on state or federally protected wetlands (see Attachment B for additional detail. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments because the same treatment activities are proposed. The potential for treatment activities to result in adverse effects on state or federally protected wetlands was examined in the Program EIR. During the reconnaissance-level survey conducted pursuant to SPR BIO-1, multiple types of aquatic habitat were observed, including perennial riverine, intermittent riverine, lake, freshwater pond, freshwater forested-shrub wetland, freshwater emergent wetland, and springs. Wetlands have been documented at Aetna Springs Preserve Forest Health treatment area (Ruygt 2019), and Napa County vegetation mapping shows 4.3 acres of freshwater emergent wetland mapped in the Friesen Lakes Watershed Forest Health treatment area. Additional aquatic resources which may be wetlands are mapped at Deer Park & Howell Mountain Roadside Expanded, Friesen Dr (to Lookout Point) Roadside Expanded, Friesen Lakes Watershed Forest Health, Hospital Defensible Space and Evacuation, Summit Lake Drive Roadside Expanded, Summit Lake to Ink Grade Forest Health, Wildlake Preserve Forest Health, and Wildlake Preserve Roadside Expanded treatment areas (Thorne et al. 2019). Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps. Unmapped aquatic resources were observed during the SPR BIO-1 reconnaissance survey including the flowing spring observed in the Pacific Union College Forest Health treatment area.

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

Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	Impact BIO-5, 3.6	LTSM	SPR BIO-1, 4, 5, 10, 11 SPR HYD-1, 4 MM BIO-5 SPR AD-1	Yes	LTSM	☒

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

Based on review and survey of project-specific biological resources (SPR BIO-1), the majority of the project area falls within the Blue Ridge-Marin Coast critical habitat linkage (CLN 2022). The Blue Ridge-Marin Coast critical habitat linkage excludes the developed portions of Angwin but encircles the town and includes the surrounding open spaces which include the treatment areas in Wildlake Preserve, Audubon Cheney Preserve, Okin Preserve, Linda Falls and Glendale Ranch, the area surrounding the Hospital, and Aetna Preserve (CLN 2022). None of the project area falls within mapped essential connectivity areas (BIOS 2014). Natural landscape blocks in and around the project area are associated with undeveloped patches of open space such as Las Posadas State Forest, Cedar Roughs Wilderness area, Robert Louis Stevenson State Parks, and lands managed by Land Trust of Napa County. Southeast of the proposed project, extensive agricultural development along the Napa Valley, as well as SR-128 and SR-29 likely prevent wildlife movement of terrestrial wildlife from Sugarloaf Ridge State Park and other Sonoma County open spaces. Within Angwin and Deer Park, baseline wildlife movement is fairly unconstrained by barriers. Angwin and the surrounding communities are characterized by a patchwork of agricultural and residential development, with a mosaic of open space and wildland scattered among the development, and with few busy roads. Additionally, riparian areas are present throughout the Angwin region, and these are likely used as wildlife movement corridors.

WUI fuel reduction treatments would occur near existing roads and private residences. The size and traffic level of the roads and level of development within recreational and residential areas varies; however, these areas generally are subject to ongoing disturbances (e.g., visiting recreationists, vehicle traffic, human activity) and some level of wildlife habitat fragmentation due to historic urban, residential, and agricultural development of the region. Fuel break treatment areas follow existing roads, trails, and fuel breaks. Several fuel break areas which are named with the suffix “expanded” are located along previously established fuel breaks which already undergo regular treatment, and proposed treatment will expand the shaded fuel break from 50 to 110 feet from the centerline, often treating areas beyond roadside rights-of-way. In these areas, fuel break treatment activities will not introduce any new disturbance to wildlife movement corridors. Additionally, all proposed fuel break treatments are shaded fuel breaks, and therefore would retain sufficient forest canopy to provide some cover for wildlife movement. Ecological restoration treatments are designed to improve forest health, to support landscape recovery of previously burned areas, and to improve fire resilience and habitat function. Hence, by design these treatments will help improve landscape heterogeneity and connectivity for wildlife. Wildlife may move through all treatment areas and use habitats for cover or as nursery sites.

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, these treatments that would likely improve their function as a wildlife movement corridor. Additionally, 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) as determined by a qualified RPF or biologist. As required by SPR BIO-10, a qualified RPF or biologist would conduct surveys for nursery sites within habitat suitable for nurseries, and 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, with some exceptions for dead, dying, hazard trees) larger than 12 inches DBH would be retained and pursuant to SPRs BIO-3, BIO-4, and BIO-5, treatments in sensitive natural communities, riparian habitat, and chaparral habitat respectively, would be designed to maintain habitat function of these communities. SPR BIO-11 would require all temporary fencing associated with prescribed herbivory treatments to be wildlife-friendly, such that the chance of wildlife entanglement would be minimized. Additionally, implementation of proposed treatments would not result in any conversion of land cover or create permanent new barriers to wildlife movements across 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 Program EIR. This impact is within the scope of the Program EIR, because the treatment activities and extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, as described above, the potential impact on wildlife movement corridors is also the same. Biological resource SPRs that apply to project impacts under Impact BIO-5 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-5, SPR BIO-10, SPR BIO-11, and SPR HYD-4. The biological resources mitigation measure that applies to project impacts under Impact BIO-5 is Mitigation Measure BIO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	Impact BIO-6, 3.6	LTS	SPR BIO-1, 2, 3, 4, 5, 12 SPR AD-1	Yes	LTS	☒

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, herbicide application, and prescribed herbivory, 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, chain saws, 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 Program EIR. The potential for adverse effects on common wildlife, including nesting birds, is within the scope of the Program EIR, because, within the project area boundary, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and extent of expected disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape, as described above, the potential impact on common wildlife, including nesting birds is also the same. Biological resource SPRs that apply to project impacts under Impact BIO-6 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-5, and SPR BIO-12. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	Impact BIO-7, 3.6	No Impact	SPR AD-1, 3	Yes	No Impact	☒

The potential for treatment activities to result in conflicts with local policies or ordinances was examined in the Program EIR. Applicable local ordinances include policies outlined in the Napa County General Plan, Napa County Watershed and Oak Woodland Protection Ordinance No. 2018-01, and the Napa County Defensible Space Guidelines.

The proposed project will support the natural resources goals and policies outlined in the Napa County general plan (Napa County 2008), including the maintenance and enhancement of biodiversity (CON-2), protection of special-status species and their habitats (CON-3 and CON-4), protect habitat connectivity for wildlife movement (CON-5), and preserve and restore forests for their economic, environmental, recreational, and open space values (CON-6), among others. Policy CON-17 states that activities in the county will preserve and protect native grasslands, serpentine grasslands and chaparral, and other sensitive biotic communities and sensitive habitats. This will be achieved through the SPRs and mitigation measures identified in Impact BIO-3, which will ensure that treatment in native grasslands are designed to restore or improve habitat. Policy CON-23 requires that projects follow the Invasive Weed Ordinance to prevent the spread of nonnative invasive species (Napa County 2008); this project will address invasive species spread as described in Impact BIO-1, through implementation of SPRs BIO-6 and BIO-9.

Oak woodland habitat is protected in the Napa County general plan per Policy CON-24, and this protection has been expanded following the Napa County Water Quality and Tree Protection Ordinance No. 2018-01. The Napa County Watershed and Oak Woodland Protection Ordinance requires retention of 70 percent of canopy cover for oak woodlands, riparian oak woodlands, and conifer forests (Napa County 2019). However, this ordinance specifically exempts landowners who are creating or maintaining defensible space or fire management practices that are consistent with the adopted Napa County Defensible Space Guidelines (Napa County 2019; Napa County 2021). The Defensible Space Guidelines were designed in consultation with CAL FIRE and generally discourage removing vegetation associated with wet areas or water, removing all trees and shrubs, or creating areas with bare soils (Napa County 2021). Treatment objectives would be consistent with these guidelines; for example, pursuant to SPR BIO-3, an RPF or biologist will perform a protocol-level botanical survey and map sensitive natural communities including sensitive oak woodlands for avoidance prior to project implementation, and pursuant to Mitigation Measure BIO-3a, the project will be designed to avoid loss of sensitive natural communities and oak woodlands. Thus, there would be no conflict with local ordinances because of implementation of treatment activities.

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

Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	Impact BIO-8, 3.6	No Impact	SPR AD-1	No	N/A	☒

This impact does not apply to the proposed project because the project area is not within the plan area of any adopted habitat conservation plan or natural community conservation plan. Therefore, this impact does not apply to the proposed project. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the 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, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts to Biological Resources: Would the project result in other impacts to biological resources that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR BIO-1: Review and Survey Project-Specific Biological Resources.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC
1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided.**	Yes		
2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided**. This SPR applies to all treatment activities and treatment types.	Yes		

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 treatment areas. See Attachment A, "SPRs and MMs," for information on the qualifications of personnel that can implement SPRs and mitigation measures. Habitat and vegetation types in the treatment areas were identified using the Napa County vegetation data, which was created in 2004 and updated in 2016 (Thorne et al. 2004; Thorne et al. 2019), to identify the habitat types present in the project area. The total acreage of each habitat type is presented by treatment type in Appendix B, Table B-1. The Napa County vegetation data was also reviewed to identify areas of potentially sensitive or unusual habitat. The Napa County data was consistent with other vegetation data sets available in the region, including CAL FIRE's Fire and Resource Assessment Program (FRAP) vegetation data layer (FVEG), and Conservation Lands Network (CLN) version 2.0 vegetation mapping data. The vegetation types were verified or corrected in the field during reconnaissance surveys.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of surveys conducted, and habitat present within the treatment areas as assessed during reconnaissance surveys, a complete list of all species with potential to occur in the vicinity of the proposed project was assembled (Attachment B). A total of 85 special-status plants and 39 special-status wildlife species were assessed. Of these, a total of 55 special-status plants (Appendix B Table B-2) and 24 of the special-status wildlife (Appendix B Table B-3) from the complete list of species were determined to have potential to occur in the treatment areas. These species are discussed in detail in Attachment B.

Based on the results of the data review and reconnaissance-level survey, NCFF, LTNC, and PUC determined that for wetlands and some special-status species, adverse effects can be clearly avoided with implementation of physical or seasonal restrictions on work activities, as outlined in SPR BIO-1 (Attachment A). However, for some special-status plants, sensitive natural communities, sensitive habitats, and other certain special-status wildlife species, suitable habitat is present and adverse effects cannot be clearly avoided with only the implementation of physical or seasonal restrictions on work activities. For these biological resources, where suitable habitat is present and adverse effects cannot be clearly avoided, further review and surveys will be conducted and additional mitigation measures may apply.

SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Biological resource training for workers will be conducted prior to and during implementation of treatments.

SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

SPR BIO-1 determined that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided. A qualified RPF or biologist will conduct a survey following the CDFW "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*" prior to the start of treatment activities (CDFW 2018). Sensitive natural communities and other sensitive habitats, including oak woodlands and riparian habitat, within the project area will be mapped by a qualified biologist, RPF, or botanist during this survey.

SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Class I, Class II and Class III watercourses that contain riparian habitat have the potential to occur in the project area. WLPZs and ELZs will be established adjacent to all Class II and Class III streams within the project area. Treatments in riparian habitats will retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation and will largely be limited to removal of uncharacteristic fuel loads (e.g., dead or dying vegetation, invasive plants). Additionally, prior to any treatments in riparian habitat, the implementing entity will notify CDFW pursuant to California Fish and Game Code 1602, when required.

SPR BIO-5: Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub. The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. These SPR requirements apply to all treatment activities and all treatment types. Additional measures will be applied to ecological restoration treatment types	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

The project area contains sensitive habitats including McNab cypress woodland, Douglas fir-ponderosa pine forest (old-growth), Redwood forest, Oregon white oak woodland, tanoak alliance, mixed serpentine chaparral, Hoary, common, and Stanford manzanita chaparral, valley oak woodland and forest, serpentine bunchgrass grassland, and riparian habitats. In addition, the project area has the potential for other sensitive habitats including California bay forests and woodlands, Eastwood manzanita chaparral, and others (see attachment B for additional detail). Treatments implemented in coastal scrub and chaparral will be designed to avoid type conversion of coastal scrub and chaparral vegetation and to maintain function of these habitats. This will include designing treatments based on current FRI departure and condition class of the coastal scrub and chaparral vegetation onsite, maintaining a minimum percent cover of mature native shrubs, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. Treatments in all sensitive habitats in the project area will be designed to maintain the membership rules of the affected vegetation alliance, maintain ecological function, and improve wildfire resilience.

SPR BIO-6: Prevent Spread of Plant Pathogens. When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement best management practices to prevent the spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle). This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

There are no known plant pathogens in the project area. It is likely that personnel and equipment assigned to work on the project will be from the local area and the likelihood of pathogens entering from other areas will be low. However, because crews and associated equipment (e.g., chainsaws, hand tools) and vehicles could have been used in outside of the project vicinity either fighting wildfires or implementing other fuel treatment projects, the implementing entity will implement Best Management Practices (BMPs) listed under SPR BIO-6 in Attachment A.

SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

It has been determined that habitat potentially suitable for special-status plants may be present in the project area for 55 special-status plant species (see Impact BIO-1). Protocol-level surveys for the special-status plant species identified in Attachment B will be conducted in habitat suitable for special-status plants prior to treatments commencing if treatments are unable to be conducted during the time of year that would be conducive to avoiding impacts based on the phenology of the species. Surveys for treatment areas on the Pacific Union College property were conducted in May and June 2023 (Wyrick-Brownsworth 2023).

SPR BIO-8: Identify and Minimize Impacts in Coastal Zone ESHAs. This SPR applies to all treatment activities and only the ecosystem restoration treatment type.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

The project area is outside of the Coastal Zone; therefore, this SPR does not apply.

SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

During the October 17, 18, and 19, 2022 reconnaissance surveys, invasive plant species such as yellow star thistle (*Centaurea solstitialis*), eggleaf spurge (*Euphorbia oblongata*), French broom (*Genista monspessulana*) and Himalayan blackberry (*Rubus armeniacus*) and numerous nonnative grasses were noted within the project area. The implementing entity will implement BMPs listed under SPR BIO-9 in Attachment A to prevent the spread of invasive plants, noxious weeds, and invasive wildlife.

SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Surveys will be required prior to treatment activities in habitat suitable for the following special-status wildlife species identified with the potential to occur in the project area (Attachment B, Table B-3): California giant salamander, California red-legged frog, foothill yellow-legged frog, western pond turtle, American peregrine falcon, bald eagle, golden eagle, northern spotted owl, purple martin, tricolored blackbird, white-tailed kite, yellow warbler, yellow-breasted chat, monarch, American badger, pallid bat, ringtail, Townsend's big-eared bat, and western red bat. If the implementing entity assumes that the species is present within the project area and feasible mitigation is implemented based on that assumption, surveys are not required for California giant salamander, California red-legged frog, foothill yellow-legged frog, western pond turtle, American peregrine falcon, bald eagle, golden eagle, northern spotted owl, purple martin, tricolored blackbird, white-tailed kite, yellow warbler, yellow-breasted chat, monarch, pallid bat, ringtail, Townsend's big-eared bat, and western red bat. 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). Where approved survey protocols are not available, survey protocols will be developed based on the best and most recent scientific recommendations.

SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). This SPR applies only to prescribed herbivory and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Wildlife-friendly fencing will be utilized at all treatment areas with prescribed herbivory (all treatment areas except for Audubon Cheyney Preserve Forest Health, Pacific Union College Forest Health, Wildlake Preserve Forest Health, Old Howell Mountain Road Fuel Break. See table 2-1 for detail).

SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP Program EIR. The active nesting season or peak nesting season will be defined by the qualified RPF or biologist. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

For treatments implemented during the nesting bird season (February 1–August 31), a survey for common nesting birds will be conducted within the project area prior to treatment activities. A survey for common nesting birds will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies no more than three weeks prior to treatment. If an active nest is observed, the implementing entity will implement avoidance strategies prior to and during treatment. If active nests of common birds or raptors are observed during focused surveys, disturbance to the nests will be avoided by, modifying treatments to avoid disturbance to the nests, deferring treatment until the nests are no longer active as determined by an RPF or qualified biologist, or

establishing an appropriate buffer around the nests. Buffers may be reduced by a qualified biologist or RPF based on rationale such as species sensitivity, vegetative cover, nest height, and topography that will attenuate noise and visual disturbance. In addition, trees with visible raptor nests will be retained, whether or not the nest is occupied.

MM BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Measures to avoid loss of individuals and maintain habitat function of occupied habitat for Loch Lomond button-celery, Boggs Lake hedge-hyssop, Contra Costa goldfields, Few-flowered navarretia, and Keck's checkerbloom will be implemented (Appendix B; Table B-2). Impacts to listed special-status plants will be avoided by physically avoiding the location of special-status plants using avoidance buffers, designing projects to maintain the function of special-status plant habitat, and prohibiting fire ignition within the special-status plant buffer.

MM BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement measures to avoid loss of individuals and maintain habitat function of occupied habitat.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Measures to avoid loss of individuals and maintain habitat function of occupied habitat for Franciscan onion, Napa false indigo, bent-flowered fiddleneck, Konocti manzanita, Rincon Ridge manzanita, Jepson's milk-vetch, big-scale balsamroot, narrow-anthered brodiaea, small-flowered calycadenia, northern meadow sedge, pink creamsacs, Rincon ridge ceanothus, Calistoga ceanothus, holly-leaved ceanothus, Sonoma ceanothus, pappose tarplant, dwarf soaproot, serpentine cryptantha, dwarf dowingia, Greene's narrow-leaved daisy, adobe-lily, Toren's grimmia, Hall's harmonia, congested-headed hayfield tarplant, two-carpellate western flax, drymaria-like western flax, Sharsmith's western flax, Santa Lucia dwarf rush, Colusa layia, Legenere, Jepson's leptosiphon, Napa lomatium, Cobb Mountain lupine, marsh microseris, Baker's naverretia, Small pincushion naverretia, Porter's navarretia, Marin County navarretia, Sonoma beardtongue, Sanford's arrowhead, Napa checkerbloom, Marsh checkerbloom, Socrates Mine jewelflower, green jewelflower, Three Peaks jewelflower, early jewelflower, early jewelflower, slender-leaved pondweed, Napa bluecurls, saline clover, and oval-leaved virburnum will be implemented (Appendix B; Table B-2). Impacts to non-listed special-status plants will be avoided by physically avoiding the location of special-status plants using avoidance buffers, designing projects to maintain the function of special-status plant habitat, and prohibiting fire ignition within the special-status plant buffer.

MM BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. If the special-status plant taxa are listed under ESA or CESA, the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This mitigation measure does not apply to the project. The implementing entities will implement Mitigation Measure BIO-1b to avoid impacts to species; therefore, no compensatory mitigation will be required.

MM BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities)	Yes	NCFF, LTNC, and PUC	NCFF, LTNC, and PUC

The measures listed in Attachment A will be implemented to avoid impacts to and maintain habitat function (e.g., suitable vegetation cover, nesting trees, host plants) for California red-legged frog, foothill yellow-legged frog, American peregrine falcon, bald eagle, golden eagle, northern spotted owl, tricolored blackbird, white-tailed kite, and ringtail. NCFF consulted with CDFW and USFWS starting on April 3, 2023 in conformance with the requirements of MM BIO-2a. Ryan Olah responded on May 5, 2023 stating that the Service reviewed the proposed project details and had no additional comments on the proposed project or conservation measures. Robynn Swan responded on April 17th, 2023 stating that CDFW concurs the proposal to minimize impacts and maintain habitat function. The project area was expanded in September 2023, and a follow-up consultation occurred with USFWS and CDFW. USFWS was contacted on October 19, 2023 and responded on November 3, 2023 stating that the Service had no additional comments on the updated project area. A follow-up consultation with CDFW was initiated on October 27, 2023 and Katanja Waldner responded on November 8, 2023 with requests for several updates. Katanja's updates included an extended limited operating period to protect ringtail and an extended limited operating period for nesting raptors and white-tailed kite. These requested changes were incorporated into the analysis and the SPRs and mitigation measures (Attachment A).

MM BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required.	Yes	NCFF, LTNC, and PUC	NCFF, LTNC, and PUC

The measures listed in Attachment A will be implemented to avoid impacts to and maintain habitat function (e.g., suitable vegetation cover, nesting trees, host plants) for California giant salamander, foothill yellow-legged frog, western pond turtle, purple martin, yellow warbler, yellow-breasted chat, monarch, American badger, pallid bat, Townsend's big-eared bat, and western red bat.

MM BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities) If the provisions of Mitigation Measure BIO-2a, BIO-2b, BIO-2d, BIO-2e, BIO-2f, or BIO-2g cannot be implemented and the project proponent determines that additional mitigation is necessary to reduce significant impacts, the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit), if these requirements are equally or more effective than the mitigation identified above.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This mitigation measure does not apply to the project. As required, Mitigation Measures BIO-2a, BIO-2b, BIO-2e, and BIO-2g will be implemented to reduce impacts to species.

MM BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This mitigation measure does not apply to the project because the project area is outside of the range of valley elderberry longhorn beetle.

MM BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities) The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Measures listed in Attachment A will be implemented to avoid impacts to and maintain habitat function for monarch butterfly. MM BIO-2e applies because habitat suitable for monarch foraging and breeding may potentially be present in the project area. MM BIO-2e states that prescribed burning treatments in habitat suitable for monarch butterfly foraging (as identified by a qualified biologist or RPF) will be conducted from October 31 through March 15, if feasible, and that treatment will be designed to occur in a way that ensures the entirety of the habitat is not burned or removed in a single year (Appendix A).

MM BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities)	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This mitigation measure does not apply because no special-status beetles, flies, grasshoppers, or snails have the potential to occur within the project area.

MM BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities) The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.	Yes	NCFF, LTNC, and PUC	NCFF, LTNC, and PUC

Measures listed in Attachment A will be implemented to avoid impacts and maintain habitat function for Crotch's bumble bee. MM BIO-2g applies because habitat suitable for Crotch's bumble bee foraging, nesting, and overwintering may potentially be present in the project area. MM BIO-2g includes several measures to reduce the likelihood of potential mortality, injury, or disturbance to special-status bumble bees and to maintain habitat function, for projects within the range of the species and where suitable habitat is present. These measures include limiting prescribed burning and herbicide application during the bumble bee flight and nesting season (March through September), as feasible, where project objectives would still be met; and conducting treatments in a patchy pattern to retain floral resources and provide refuge for bumble bees, as feasible (Appendix A).

MM BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory)	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This mitigation measure does not apply to the project because the project area is outside of the range of special-status ungulates.

MM BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3: The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

The project area potentially contains 30 sensitive natural communities as defined by Napa County's mapping (Thorne et al. 2019) and the Manual of California Vegetation (Attachment B; Table B-4). Mitigation measure BIO-3a applies to sensitive natural communities, oak woodland habitat types, and habitats identified as County of Napa sensitive biotic communities or biotic communities of limited distribution. Under Mitigation Measure BIO-3a, a qualified RPF or biologist will determine the natural fire regime, condition class, and FRI for each sensitive natural community and oak woodland type. Treatment activities in sensitive natural communities and oak woodlands will be designed to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function.

MM BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands. If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects.	No	NCFF, LTNC, and PUC	NCFF, LTNC, and PUC

This mitigation measure does not apply to the project. The implementing entities will implement Mitigation Measure BIO-3a to avoid impacts to sensitive natural communities and oak woodlands; therefore, no compensatory mitigation will be required.

MM BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This mitigation measure does not apply to the project because WLPZs and ELZs will be established adjacent to all Class I, Class II, and Class III streams within the project area, and protections applied in all WLPZs and ELZs will avoid the loss or degradation of riparian habitat functions. Therefore, compensatory mitigation is not required.

MM BIO-4: Avoid State and Federally Protected Wetlands	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of wetland features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, seeps, and other wetlands; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-status wildlife (e.g., dwarf downingia, foothill yellow-legged frog, California giant salamander, and western pond turtle; see Impact BIO-1 and Impact BIO-2). Additionally, project-specific measures regarding burn pile setbacks from water resources will be implemented throughout the project area based on recommendations received from the City of Napa for treatment areas in the Linda Falls Preserve.

MM BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

If wildlife nursery habitat is identified during SPR BIO-10 surveys, treatment activities could result in disturbance of nursery behavior causing loss of young or result in direct removal of nursery habitat and this mitigation measure will apply. A qualified RPF or biologist will establish buffers around active nursery sites during the maternity season for species such as deer, bats, herons, and other species which breed in nursery sites. Buffers will be established of the appropriate size prior to implementation of treatment activities. The appropriate size and shape of the buffer will be based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors.

Refer to Attachment B, for guidance on the project-specific review and survey procedures for biological resources.

EC-6 GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

The Napa Valley subregion's surficial geologic deposits consist of widespread, locally deep alluvium in the Napa Valley and generally discontinuous deposits on the flanking ridge systems of colluvium, soil creep, and landslides. Soil types (agricultural) and their characteristics in the Napa Valley subregion are controlled in part by location (i.e., valley or hillside). The principal soil series in the Napa Valley is Bale-Cole-Yolo. Soils of this series have formed on the near level to gently sloping deep alluvium of the Napa Valley. The soils are well drained to somewhat poorly drained loams, silt loams, and clay loams on flood plains, alluvial fans, and terraces. The soil series within the project area are numerous and variable in their physical properties and hazard potential (WICC of Napa County 2005).

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	Impact Geo-1, 3.7	LTS	SPR GEO-1, 2, 3, 4, 5, 6, 7, 8, SPR HYD-3 SPR AQ-3, 4 SPR HYD-4 SPR AD-3	Yes	LTS	☒

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

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-4, HYD-3, and HYD-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact GEO-2: Increase Risk of Landslide	Impact Geo-2, 3.7	LTS	SPR GEO-3, 4, 7, 8, SPR AQ-3 SPR AD-3	Yes	LTS	☒

Treatment activities would include prescribed burning, mechanical treatment, manual treatment, targeted use of herbicides and prescribed herbivory. No areas with known landslide activity are identified within the project area (USGS 2022). The potential for treatment activities to increase landslide risk was examined in the Program EIR. This impact is within the scope of the Program EIR because the extent of

vegetation removal, intensity of prescribed burning, and characteristics of the geographical terrain are consistent with those analyzed in the Program EIR.

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 AQ-3, GEO-1, GEO-3, GEO-4, GEO-7, and GEO-8. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts to Geology, Soils, Paleontology, And Mineral Resources: Would the project result in other impacts to geology, soils, paleontology, and mineral resources that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The lead agency and implementing entities have considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.7.1, "Environmental Setting," and Section 3.7.2, "Regulatory Setting," in Volume II of the Final Program EIR). Within the boundary of the project area, the existing environmental and regulatory conditions pertinent to geology and soils that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to geology, soils, paleontology, or mineral resources would occur that is not covered in the Program EIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Mechanical activities, prescribed herbivory, and herbicide treatment will be suspended depending on forecasted precipitation to minimize the risk of soil compaction and disturbance.

SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. This SPR applies only to mechanical treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

The implementing entity will avoid driving heavy equipment and other high ground pressure vehicles on saturated soils to minimize the risk of soil compaction and disturbance.

SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. This SPR only applies to mechanical and prescribed herbivory treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During-Post	NCFF, LTNC, and PUC

The implementing entity will stabilize soils following proposed mechanical treatments and prescribed burns that result in exposure of bare soil over 50 percent or more of the project area. This project includes chipping materials and scattering the chips within the treated areas, which will reduce the amount of exposed bare soil following treatments.

SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. This SPR applies only to mechanical and prescribed burning treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

After the first storm event where 1.5 inches of rain or more falls within a 24-hour period, the project area will be inspected to determine if erosion control measures functioned properly. If any area is identified where erosion could result in substantial discharge, the area will be stabilized within 48 hours of the rainfall event.

SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Stormwater runoff will be drained via water breaks to minimize the risk of erosion occurring within the project area or on road infrastructure following treatments that may compact or disturb soils.

SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Pile burning activities will be implemented and supervised by the implementing entity. Burn piles will not exceed 20 feet in length, width, or diameter, unless implemented in accordance with the exceptions described in the PEIR (CalVTP Final PEIR Volume II Section 2.7.6, 47).

SPR GEO-7 Minimize Erosion, Slope Restrictions for Heavy Equipment and Tractor Roads. This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

The use of heavy equipment (i.e., bulldozers, masticators, and chippers) will not occur on slopes over 35 percent except during control line construction for broadcast burning where bull dozers may operate on slopes up to 50 percent.

SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

The use of heavy equipment (i.e., bulldozers, masticators, and chippers) for mechanical treatment activities will not occur on slopes over 50 percent. For other treatment activities, an RPF or licensed geologist will evaluate project areas with slopes greater than 50 percent for any unstable areas and unstable soils. If these areas are unavoidable, additional measures would be implemented to ensure that substantial erosion or loss of topsoil would not occur.

EC-7 GREENHOUSE GAS EMISSIONS

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GHG-1: Conflict with applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs	Impact GHG-1, 3.8	LTS	SPR GHG- 1 SPR AD- 3	Yes	LTS	☒

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in greenhouse gas (GHG) emissions. Consistency of treatments under the CalVTP with applicable plans, policies, and regulations aimed at reducing GHG emissions was examined in the Program EIR. Consistent with the Program EIR, although GHG emissions would occur from equipment and vehicles used to implement treatments, the purpose of the proposed project is to reduce wildfire risk, which could reduce GHG emissions and increase carbon sequestration over the long term. This impact is within the scope of the Program EIR because the proposed activities, as well as the associated equipment, duration of use, and resultant GHG emissions, are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the same plans, policies, and regulations adopted to reduce GHG emissions apply in the areas outside the treatable landscape, as well as areas within the treatable landscape; therefore, the GHG impact is also the same, as described above. SPR GHG-1 is not applicable to the proposed project because this project is not a registered offset project under the Board's Assembly Bill 1504 Carbon Inventory Process. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact GHG-2: Generate Greenhouse Gas Emissions through Treatment Activities	Impact GHG-2, 3.8	PSU	SPR AQ- 3 MM GHG- 2 SPR AD- 3	Yes	PSU	☒

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in GHG emissions. The potential for treatments under the CalVTP to generate GHG emissions was examined in the Program EIR and found to be potentially significant and unavoidable after the application of all feasible mitigation measures because of the infeasibility of implementing specific emission reduction techniques and the uncertainties associated with all the parameters and objectives of prescribed burning. Mitigation Measure GHG-2 requires implementing entities to implement feasible methods to reduce the GHG emissions from prescribed burning, including pile burning. Accordingly, the use of biomass processing technologies (air curtain burners, carbonators, and gasifiers) is proposed. The essential function of these technologies is to reduce smoke, and resultant GHG emissions compared to pile burning by consuming biomass quickly and efficiently. According to a 2020 study of biomass, air curtain burners emit 54 percent less CO2 emissions compared to pile burning (Puettman et. al. 2020). The specific GHG emissions of pyrolysis and gasification depend on multiple factors but are lower than pile burning in all cases (Ascent 2022). Additionally, the production of biochar and subsequent application as a soil amendment provides long-term carbon sequestration benefits that are not available from pile burning.

This impact is within the scope of the Program EIR because the proposed activities, as well as the associated equipment and duration of use, and the intent of the treatments to reduce wildfire risk and GHG emissions related to wildfire are consistent with those analyzed in the Program EIR. Mitigation Measure GHG-2 would be implemented by using specialized biomass processing technologies (i.e., air curtain burners, carbonation, and gasification) when feasible to reduce GHG emissions (i.e., CO_2) associated with prescribed burning (pile burning). Although use of biomass processing technologies would substantially reduce GHG emissions, emissions generated by the treatments would still contribute to the annual emissions generated by the CalVTP, and this impact would remain potentially significant and unavoidable, consistent with, and for the same reasons described in, the Program EIR. SPR AQ-3 is also applicable to this treatment and will contain the description of feasible GHG reduction techniques implemented per Mitigation Measure GHG-2.

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

Other Impacts to related to Greenhouse Gases: Would the project result in other impacts related to greenhouse gases that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity. This SPR applies to all treatment activities and all treatment types.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

SPR GHG-1 is not applicable to the proposed project; the implementing entity 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.

MM GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

A Burn Plan pursuant to SPR AQ-3 will be prepared by NCFF prior to pile and broadcast burn treatments. Use of an air curtain burner is proposed, pursuant to MM GHG-2, to reduce GHG emissions from pile burning. Use of an air curtain burner would substantially reduce smoke and associated GHG emissions (i.e., CO2) compared to pile burning, as explained above.

EC-8 ENERGY RESOURCES

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact ENG-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy	Impact ENG-1, 3.9	LTS	N/A	Yes	LTS	☒

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

Other Impacts to Energy Resources: Would the project result in other impacts to energy resources that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

EC-9 HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	Impact HAZ-1, 3.10	LTS	SPR HYD-4 SPR HAZ- 1 SPR AD- 3	Yes	LTS	☒

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

Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	Impact HAZ-2, 3.10	LTS	SPR HAZ-5, 6, 7, 8, 9 SPR AD- 3	Yes	LTS	☒

Initial and maintenance treatments would include herbicide application to target plant species using cut-stump and basal-bark application methods. No aerial spraying of herbicides would occur. The potential for treatment activities to cause a significant health hazard from use of herbicides was examined in the Program EIR. This impact is within the scope of the Program EIR because the herbicides (i.e., those listed in Section 2.1.2 of this PSA) and application methods that would be used are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, 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 hazardous materials impact is also the same, as described above. SPRs HAZ-5 through HAZ-9 are applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

This impact does not apply to the Okin Preserve Roadside/Evacuation Route because no herbicides would be used at this treatment area.

Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	Impact HAZ-3, 3.10	LTSM	MM HAZ- 3 SPR AD- 3	Yes	LTSM	☒

Initial and maintenance treatments would include soil disturbance and prescribed burning, which could expose workers, the public, or the environment to hazardous materials if a contaminated site is present within the project area. The potential for workers participating in

treatment activities to encounter contamination that could expose them, the public, or the environment to hazardous materials was examined in the Program EIR. This impact was identified as potentially significant in the Program EIR because hazardous materials sites could be present within treatment sites throughout the large geographic extent of the treatable landscape, and the feasibility of implementing mitigation for exposure of people or the environment to hazards resulting from soil disturbance or burning in a hazardous materials site was uncertain.

As directed by Mitigation Measure HAZ-3, database searches for hazardous materials sites within the project area have been conducted. No hazardous materials sites were identified within 0.25 mile of any of the treatment areas (DTSC 2022; CalEPA 2022; SWRCB 2022). Therefore, after implementation of Mitigation Measure HAZ-3, which did not identify any sites, this impact would be less than significant.

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

Other Impacts to Hazardous Materials, Public Health and Safety: Would the project result in other impacts to hazardous materials, public health and safety that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR HAZ-1 Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer’s specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Mechanical and manual treatment crews and pile burn crews will maintain all equipment in compliance with SPR HAZ-1 to minimize the risk of impacts resulting from leaks.

SPR HAZ-2 Require Spark Arrestors: This SPR applies only to manual treatment activities and all treatment types	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

All mechanized hand tools will have federal- or state-approved spark arrestors.

SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Manual treatment crews will carry one fire extinguisher per chainsaw and vehicles will be equipped with one long-handled shovel and one axe or Pulaski.

SPR HAZ-4 Prohibit Smoking in Vegetated Areas. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Crews will not be permitted to smoke in vegetated areas prior to or during treatment activities.

SPR HAZ-5 Spill Prevention and Response Plan: The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to provide protection to onsite workers, the public, and the environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

A spill prevention and response plan would be prepared before beginning herbicide treatments activities.

SPR HAZ-6 Comply with Herbicide Application Regulations. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

The implementing entity will coordinate with the Napa County Agricultural Commissioner and obtain and required licenses and permits before implementing herbicide treatment activities.

SPR HAZ-7 Triple Rinse Herbicide Containers. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During-Post	NCFF, LTNC, and PUC

All herbicides and adjuvant containers will be triple rinsed with clean water at an approved site and rinsate will be disposed of in a batching tank (3 CCR Section 6684).

SPR HAZ-8 Minimize Herbicide Drift to Public Areas. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

The implementing entity will follow application guidelines on herbicide labels regarding weather parameters, spray nozzles will be configured to produce the largest appropriate droplet size, low nozzle pressures will be utilized, and spray nozzles will be kept within 24 inches of vegetation during spraying to avoid herbicide drift.

SPR HAZ-9 Notification of Herbicide Use in the Vicinity of Public Areas. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

Herbicide treatment notifications will be required within or adjacent to public and residential areas within 500 feet. Signs shall be posted at a specified location that shows the pertinent herbicide information prior to the start of the treatment, and notification shall remain posted at least 72 hours after ending the treatment application.

MM HAZ-3: Identify and Avoid Known Hazardous Waste Sites Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

As discussed above, 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 any of the treatment areas (DTSC 2022; CalEPA 2022; SWRCB 2022). Therefore, after implementation of Mitigation Measure HAZ-3, which did not identify any sites, this impact would be less than significant.

EC-10 HYDROLOGY AND WATER QUALITY

The proposed project is located within the Napa River watershed, which extends approximately 45 miles northwest of San Pablo Bay to the hills north of Calistoga. Hydrologic features in the project vicinity include tributaries of the Napa River, such as Bell Creek, Cañon Creek, Conn Creek, Maxwell Creek, Burton Creek, Uncle John Creek, and Linda Falls. All tributaries of the Napa River are known to either currently support salmonids or have historical accounts of salmonid presence. Watercourses that flow through project area are Bell Creek, Cañon Creek, and Conn Creek, which are all Class I waters (e.g., fish always or seasonally present onsite and/or includes habitat to sustain fish migration and spawning) (Napa RCD 2005). The Napa River, the largest river in the Napa County, drains the watershed and empties into San Pablo Bay to the south. The lowest reaches of the Napa River and tributaries in the lower Napa Valley are tidally influenced due to the proximity to San Pablo Bay. Along the Napa River, the tidal influence is observed northward into the city of Napa (WICC of Napa County 2005).

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 utilizing the CalVTP Program EIR to follow the requirements of their Vegetation Treatment General Order, which would meet the requirements of SPR HYD-1. Users of the CalVTP PSA process are automatically enrolled in the General Order and are required to implement all applicable SPRs and mitigation measures from the Program EIR. In addition, the General Order requires implementing entities to comply with any applicable Basin Plan prohibitions.

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
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	Impact HYD-1, 3.11	LTS	SPR HYD-4 SPR AQ-3 SPR BIO-4, 5 SPR GEO-4, 6 MM BIO-3b SPR AD-3	Yes	LTS	☒

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

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the

same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also the same, as described above. SPRs applicable to this impact are HYD-4, BIO-4, BIO-5, GEO-4, and GEO-6. As explained above, impacts on water quality resulting from the proposed project would not constitute new or substantially more severe significant impact than what was covered in the Program EIR.

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	Impact HYD-2, 3.11	LTS	SPR HYD-1, 4, 5 SPR BIO-1 SPR GEO-1, 2, 3, 4, 5, 7, 8 SPR HAZ-1, 5 SPR AD-3	Yes	LTS	☒

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

Impact HYD-3: 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	Impact HYD-3, 3.11	LTS	SPR HYD-3 SPR AD-3	Yes	LTS	☒

Initial and maintenance treatment would include prescribed herbivory at all sites except for Audubon Cheyney, PUC Forest Health, Wildlake Preserve Forest Health, Okin, and Wildlake Roadside. Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas would be identified and excluded from prescribed herbivory using temporary fencing or active herding; a buffer of approximately 50 feet would be maintained between sensitive and actively grazed areas as required by SPR HYD-3. Additionally, WLPZs ranging from 50 to 150 feet would be implemented for any watercourses that are within treatment areas pursuant to SPR HYD-4. The potential for prescribed herbivory to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of grazing animals (e.g., sheep or goats) and the grazing intensity to manage and remove vegetation are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed herbivory treatments is also the same, as described above. SPRs applicable to this treatment are HYD-3, and SPR AD-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

This impact does not apply to the Audubon Cheyney, PUC Forest Health, Wildlake Preserve Forest Health, Okin, and Wildlake Roadside areas because prescribed herbivory would not be used in these treatment areas.

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	Impact HYD-4, 3.11	LTS	SPR HYD-5 SPR BIO-4 SPR HAZ-5, 7 SPR AD-3	Yes	LTS	☒

Initial and maintenance treatments would include the use of herbicides to manage resprouting native tree species (e.g., tanbark oak) within the project 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 Program EIR. This impact is within the scope of the Program EIR because the use of herbicides to remove vegetation and associated impacts to water quality are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from use of herbicides is also the same, as described above. SPRs applicable to this impact are HYD-5, BIO-4, HAZ-5, and HAZ-7. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

This impact does not apply to the Okin Preserve Roadside/Evacuation Route because no herbicides would be used at this treatment area.

Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	Impact HYD-5, 3.11	LTS	SPR HYD-1, 2,3, 4, 6 SPR GEO-5 SPR AD-3	Yes	LTS	☒

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

Other Impacts to Hydrology and Water Quality: Would the project result in other impacts to hydrology and water quality that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The lead agency and implementing entities have considered the site-specific characteristics of the proposed treatment project and determined they are

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR HYD-1 Comply with Water Quality Regulations: Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

The State Water Resources Control Board is requiring all projects utilizing 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 compliance with any applicable Basin Plan prohibitions.

SPR HYD-2 Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

No new roads will be constructed under the proposed project.

SPR HYD-3 Water Quality Protections for Prescribed Herbivory: This SPR applies to prescribed herbivory treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

During prescribed herbivory treatments, the implementing entity will identify and exclude environmentally sensitive areas (i.e. waterbodies, wetlands, or riparian areas) with a buffer of approximately 50 feet from prescribed herbivory areas using temporary fencing or active herding. Water will be provided for grazing animals in the form of on-site stock ponds or a portable water source located outside of environmentally sensitive areas, and treatment prescriptions will be designed to protect soil stability.

SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) as defined in 14 CCR Section 916.5 of the California Forest Practice Rules on either side of watercourses. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

WLPZs will be established for watercourses within the project area based on the widths and protective measures established for each water and slope class defined in Table I of 14 California Code of Regulations Section 916.5 (CalVTP Final PEIR Section 3.7-24). Streams which may qualify as Class I, II, III, and IV are present in the project area. A WLPZ of 50 to 150 feet adjacent to all Class I (e.g., Bell Creek) and Class II streams would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV streams within the project area for prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicide application (Attachment A, SPR HYD-4). Establishment of WLPZs would result in avoidance of stream and pond habitat for prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, and herbicide application. In addition, Equipment Limitation Zones (ELZs) of at least 25 feet will be established around all Class III ephemeral streams within the project area.

SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: This SPR applies to herbicide treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Herbicides will be mixed in an area devoid of vegetation or outside of areas that can contaminate waterways. All herbicide application will comply with all EPA label directions and adhere to operational restrictions in place to minimize drift. Herbicide will not be applied in established WLPZs. Herbicide will be directly applied to freshly cut stumps so the herbicide will not be sprayed adjacent to species that may be special status.

There would be no riparian or aquatic application of herbicide. No terrestrial or aquatic herbicides will be applied within WLPZs of Class I and II watercourses.

SPR HYD-6 Protect Existing Drainage Systems: This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

All stormwater drainage infrastructure will be flagged prior to treatment activities to prevent disturbance or modification. If stormwater drainage infrastructure is inadvertently disturbed or modified, the implementing entity will repair any damage and restore pre-project drainage conditions.

EC-11 LAND USE AND PLANNING, POPULATION AND HOUSING

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	Impact LU-1, 3.12	LTS	SPR AD-3, 9	Yes	LTS	☒

Vegetation treatment activities would occur within Napa County. NCFF, PUC, and LTNC are the three implementing entities that would implement the vegetation treatments in the project area. The potential for vegetation treatment activities to cause a significant impact due to a conflict with a land use plan, policy, or regulation was examined in the Program EIR. SPR AD-3 requires the NCFF, PUC, and LTNC to comply with applicable Napa County plans, policies, and ordinances, such as those pertaining to noise, biological resources, and water resources. As discussed in Section EC-5, Biological Resources, treatment activities would be implemented consistent with the Napa County General Plan, Napa Country Watershed and Oak Woodland Protection Ordinance No. 2018-01, and the Napa County Defensible Space Guidelines. Additionally, as discussed in Section EC-12, Noise, treatment activities using noise-generating equipment would take place during daytime hours, consistent with the Napa County's Noise Ordinance. This impact is within the scope of the Program EIR because proposed treatment types and activities are consistent with those examined in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the Program EIR. However, land uses in the project area are essentially the same within the treatable landscape; therefore, the land use impact is also the same, as described above. No conflict would occur because the implementing entities would adhere to SPR AD-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

Impact LU-2: Induce Substantial Unplanned Population Growth	Impact LU-2, 3.12	LTS	N/A	Yes	LTS	☒

The potential for initial treatments and maintenance treatments to result in substantial population growth as a result of increases in demand for employees was examined in the Program EIR. Implementation of initial treatments would require between two and 20 crew members depending on the treatment, along with their associated vehicles to travel to and from the treatment areas. Crew sizes would be consistent with those analyzed in the Program EIR. Impacts associated with short-term increases in the demand for workers during implementation of the treatment project are within the scope of the Program EIR because the number of workers required for implementation of the treatments is consistent with the crew sizes analyzed in the Program EIR for the types of treatments proposed. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the population and housing impact is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

Other Impacts related to Land Use and Planning, Population and Housing: Would the project result in other impacts related to land use and planning, and population and housing that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

EC-12 NOISE

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	Impact NOI-1, 3.13	LTS	SPR NOI-1, 2, 3, 4, 5, 6 SPR AD- 3	Yes	LTS	☒

Initial and maintenance treatments would require the use of heavy, noise-generating equipment. The use of this equipment during manual treatments, mechanical treatments, and prescribed burning occurring adjacent to sensitive land uses could temporarily expose those receptors to noise levels that exceed local standards. Prescribed herbivory and herbicide application would not require the use of noise-intensive equipment; noise generated by these treatment types would be negligible. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the Program EIR. This impact is within the scope of the Program EIR because the number and types of equipment proposed, and equipment use being temporary, and sporadic, are consistent with the assumptions analyzed in the Program EIR. The proposed treatments would not require the use of helicopters, which was the loudest type of equipment, and therefore the most severe noise impact, evaluated in the Program EIR.

Napa County's Noise Ordinance (Code of Ordinances, Section 3.16.080) contains provisions that limit noise sources associated with construction (which applies to vegetation treatment) to certain hours. Specifically, Section 3.16.080 regulates noise generated by operation of any tools or equipment between the hours of 7:00 p.m. and 7:00 a.m. (Napa County 2022).

As discussed in the Program EIR, noise levels generated by individual equipment range from 75 to 87.9 decibels (dB) at 50 feet from the noise source (75 to 85 dB at 50 feet from the noise source for projects without the use of helicopters). The loudest types of equipment proposed for this project are chainsaws. Though multiple pieces of equipment would be operated simultaneously to implement a treatment, they would typically be spread out (i.e., usually more than 100 feet apart) rather than operating next to each other. This is particularly true of larger, heavy-duty off-road equipment such as masticators and chippers. Noise-generating equipment would be used intermittently between 7:00 a.m. and 7:00 p.m. during treatments on weekdays and weekends. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all treatment activities using noise-generating equipment would be limited to 7:00 a.m. to 7:00 p.m., which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. In addition, treatments would only occur outside of the 100-foot defensible space requirement described in PRC 4291 and therefore, would not occur within 100 feet of sensitive receptors. The equipment noise levels discussed above are at 50 feet from the noise source. Therefore, there would be additional attenuation for distance, vegetation, and building materials that would result in interior noise levels being lower than the 75 to 85 dB levels estimated for equipment. Treatments would also be dispersed throughout the 5,190.9-acre project area, distributed across 20 distinct treatment areas, 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 (e.g., residential land uses, schools, places of worship) that are within 1,500 feet of a treatment area, SPR NOI-6 would also apply. 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 Program EIR. However, within the boundary of the project area, the exposure potential to any sensitive receptors present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the noise impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities	Impact NOI-2, 3.13	LTS	SPR NOI-1	Yes	LTS	☒

Initial and maintenance treatments would involve large trucks hauling heavy equipment to the project area. These haul truck trips would be dispersed on area roadways providing access to the project area including, but not limited to SR 128, SR 29, Deer Park Road, Sanitarium Road, Howell Mountain Road, and Summit Lake Drive. 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 Level. The potential for a substantial short-term increase in Single-Event Noise Level was examined in the Program EIR. This impact is within the scope of the Program EIR because the number and types of equipment proposed are consistent with those analyzed in the Program EIR. The haul trips associated with the treatment would occur during daytime hours, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the noise impact is also the same, as described above. SPR NOI-1 is applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts Related to Noise: Would the project result in other impacts related to noise that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Noise-generating vegetation treatment activities will be limited to the hours of 7:00 am to 7:00 pm, consistent with Napa County's Noise Ordinance.

SPR NOI-2 Equipment Maintenance: All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.

SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

The implementing entity will ensure that engine shrouds are closed during equipment operation.

SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

Equipment will be staged within the property boundaries and not immediately adjacent to any sensitive receptors.

SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

The implementing entity will ensure that equipment will be shut down when not in use and idling of equipment and haul trucks will be limited to 5 minutes.

SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. This SPR applies only to mechanical treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

Proposed treatment activities using heavy equipment will occur within 1,500 feet of residential noise-sensitive receptors. Several rural residences are present within 1,500 feet of treatment activities. No schools, hospitals, or places of worship are present within 1,500 feet of the project area. All noise-sensitive receptors will be notified prior to treatments.

EC-13 RECREATION

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	Impact REC-1, 3.14	LTS	SPR REC-1	Yes	LTS	☒

Some treatment areas on land owned or managed by LTNC[1] are open to the public for hiking and biking; however, a permit must be obtained from LTNC to enter. The PUC-managed treatment areas include popular hiking trails in the PUC forest. Initial and maintenance treatments could result in temporary closure of or limited access to the publicly accessible trails within these preserves if treatment activities are occurring in the vicinity of the trails. The potential for vegetation treatment activities to disrupt recreation activities was examined in the Program EIR. The potential for the proposed treatment project to impact recreation is within the scope of the Program EIR because the treatment activities and intensity are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the availability of recreation resources within the project area is essentially the same within and outside the treatable landscape; therefore, the impact to recreation is also the same, as described above. The SPR applicable to this treatment is REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

This impact does not apply to the following treatment areas because they are not open to the public for recreational use: Aetna Springs Preserve Roadside, Deer Park & Howell Mountain Roadside Expanded, Friesen Dr (to Lookout Point) Roadside Expanded, Friesen Lakes Watershed Forest Health, Glass Mountain & Hospital Forest Health, Hospital Defensible Space and Evacuation, Hospital Water Supply Roadside Expanded, Hospital WUI, Summit Lake Drive Roadside Expanded, Summit Lake to Ink Grade Forest Health, and Angwin PUC WUI.

Other Impacts to Recreation: Would the project result in other impacts to recreation that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

The proposed project is consistent with the treatment types and activities considered in the CalVTP Program EIR. The lead agency and implementing entities have considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.14.1, “Environmental Setting,” and Section 3.14.2, “Regulatory Setting,” in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed treatment areas constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions pertinent to recreation that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment

[1] Aetna Springs Preserve Forest Health, Audubon Cheyney Preserve Forest Health, Glendale Ranch/Linda Falls Preserve Forest Health, Okin Preserve Roadside/Evacuation Route, Wildlake Preserve Forest Health, Wildlake Preserve Forest Health, Old Howell Mountain Road Fuel Break, Old Howell Mountain to Linda Falls Trailhead WUI, and Pacific Union College Forest Health

project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to recreation would occur.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR REC-1 Notify Recreational Users of Temporary Closures. If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure approximately 2 weeks prior to the commencement of the treatment activities. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

If temporary closure of a recreation area or facility is required, the implementing entity will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities.

EC-14 TRANSPORTATION

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
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	Impact TRAN-1, 3.15	LTS	SPR TRAN-1 SPR AD-3	Yes	LTS	☒

Initial and maintenance treatments would temporarily increase vehicular traffic along roadways throughout the project area, including SR 128, SR 29, Deer Park Road, Sanitarium Road, Howell Mountain Road, Summit Lake Drive, and various other public and private roadways. The potential for a temporary increase in traffic to conflict with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures was examined in the Program EIR. The proposed treatments would be short term, and temporary increases in traffic related to treatments are within the scope of the Program EIR because the treatment duration and limited number of vehicles (i.e., heavy equipment transport, crew vehicles for crew members) associated with the proposed treatments are consistent with those analyzed in the Program EIR. In addition, the proposed treatments would not all occur concurrently, and increases in vehicle trips associated with the treatments would be dispersed on multiple roadways. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing transportation conditions (e.g., roadways and road use) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above. The SPRs applicable to this treatment are AD-3 and TRAN-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact TRAN-2: Substantially increase hazards due to a design feature or incompatible uses	Impact TRAN-2, 3.15	LTS	SPR TRAN-1 SPR HYD-2 SPR AD-3	Yes	LTS	☒

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

Impact TRAN-3: Result in a net increase in VMT for the proposed CalVTP	Impact TRAN-3, 3.15	PSU	MM AQ- 1	Yes	PSU	☒

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 and haul vegetative debris to processing facilities. This impact was identified as potentially significant and unavoidable in the Program EIR because implementation of the CalVTP would result in a net increase in VMT. Treatment activities under the proposed project would typically require between 4 and 25 crew members. The potential for an increase in VMT on affected roadways during implementation of the treatment project was examined in the Program EIR. A temporary increase in VMT is within the scope of the activities and impacts addressed in the Program EIR because the number and duration of increased vehicle trips, the size and number of crews, and treatment activities are consistent with that analyzed in the Program EIR. The increase in vehicle trips would be temporary and dispersed over multiple roadways. While carpooling would be encouraged under Mitigation Measure AQ-1, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. The proposed project would contribute to the cumulative increase in VMT attributable to implementation of the CalVTP. For these reasons, and as explained in the Program EIR, this impact would remain significant and unavoidable. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the transportation-related conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above. No SPRs are applicable to this project. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts to Transportation: Would the project result in other impacts to transportation that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR TRAN-1 Implement Traffic Control during Treatments: Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

The proposed project would not result in a permanent increase in traffic beyond existing conditions for the local area. During treatment activities, vehicles would access the project area from SR 128, SR 29, Deer Park Road, Sanitarium Road, Howell Mountain Road, Summit Lake Drive, and various other public and private roadways. The implementing entity will coordinate with the California Department of Transportation, County of Napa, or other applicable agencies with jurisdiction to determine if traffic control is needed at any affected roadway segment within or surrounding the project area. At a minimum, signs will be placed along all affected roadways to advise motorists of slow vehicles entering and exiting these roadways. Additionally, signs will be placed along affected roadways to advise of smoke conditions during prescribed burning operations.

EC-15 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	Impact UTL-1, 3.16	LTS	SPR AD- 3	Yes	LTS	☒

Initial and maintenance treatments would include WUI fuel reduction, fuel breaks, and ecological restoration through use of manual treatment, mechanical treatment, prescribed burning, targeted ground application of herbicides, and prescribed herbivory. Prescribed burning would require an on-site water supply that would be used if the burn goes out of prescription. If needed, water would be supplied from water trucks. The potential increased demand for water was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the size of the area proposed for prescribed burning treatments, amount of water required for prescribed burning, and water source type are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the water supply impact is also the same, as described above. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	Impact UTL-2, 3.16	PSU	SPR UTIL-1 SPR AD- 3	Yes	PSU	☒

Initial and maintenance treatments would generate biomass as a result of vegetation removal within the treatment areas. Biomass generated by mechanical and manual treatments would be disposed of by several means. Chipped or lopped and scattered debris may be left onsite, removed to a biomass facility, burned in piles, or otherwise processed using advanced biomass processing technologies. This impact was identified as potentially significant and unavoidable in the Program EIR because biomass hauled offsite in some parts of the treatable landscape could exceed the capacity of existing infrastructure for handling biomass. For the proposed treatment project, some plant biomass would be hauled off-site to an appropriate waste collection facility. While the amount of biomass generated is not expected to exceed the capacity of existing local infrastructure in Napa County, because the project would generate biomass needing off-site disposal, it would contribute to the environmental significance conclusion in the Program EIR; therefore, the 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 if biomass is 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 Program EIR. However, within the boundary of the project area, conditions related to biomass in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above.

Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	Impact UTL-3, 3.16	LTS	SPR UTIL-1 SPR AD-3	Yes	LTS	☒

As discussed above, initial and maintenance treatments would generate biomass as a result of vegetation removal within the treatment areas. Biomass generated by mechanical and manual treatments would be disposed of by several means. Chipped or lopped and scattered debris may be left onsite, removed to a biomass facility, or burned in piles, or otherwise processed using advanced biomass processing technologies. 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. The implementing entity would comply with all federal, state, and local management and reduction goals, statutes, and regulations related to solid waste. Compliance with reduction goals, statutes, and regulations related to solid waste was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the types and amount of biomass that may need to be hauled off-site are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the biomass conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above. SPR UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Impacts to Public Services, Utilities, and Service Systems: Would the project result in other impacts to public services, utilities, and service systems that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR UTIL-1: Solid Organic Waste Disposition Plan. For projects requiring the disposal of material outside of the treatment area, the project proponent will prepare an Organic Waste Disposition Plan prior to initiating treatment activities. This SPR applies only to mechanical and manual treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

A Solid Organic Waste Disposition Plan will be prepared that identifies the amount of solid organic waste to be transported offsite and confirms that the receiving facility has the capacity to accept the biomass.

EC-15 WILDFIRE

	Program EIR specific			Project specific		
	Identify location of impact Analysis in the Program EIR	Identify impact Significance in the Program EIR	SPRs & MMs applicable to the impact analysis in Program EIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	Impact WIL-1, 3-17	LTS	SPR HAZ-2, 3, 4 SPR AD-3	Yes	LTS	☒

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

The potential increase in exposure to wildfire during implementation of treatments was examined in the Program EIR. Increased wildfire risk associated with the use of heavy equipment in vegetated areas and with implementation of prescribed burning is within the scope of the Program EIR because the types of equipment and treatment duration and the types of prescribed burning methods proposed as part of the project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the project area, the wildfire risk is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. SPRs applicable to this treatment are AD-3, AQ-3, HAZ-2, HAZ-3, and HAZ-4. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Impact WIL-2: Expose People or Structures to Substantial Risks Related to Post-Fire Flooding or Landslides	Impact WIL-2, 3-17	LTS	SPR AQ-3 SPR GEO-3, 4, 5, 8 SPR AD-3	Yes	LTS	☒

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

Other Impacts related to Wildfire: Would the project result in other impacts related to wildfire that are not evaluated in the CalVTP Program EIR?				No	N/A	☒

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

EC-16 ADMINISTRATIVE STANDARD PROJECT REQUIREMENTS

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE would meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE would also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Coordination will be conducted by CAL FIRE as needed.

SPR AD-2 Delineate Protected Resources: The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly-visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. “Protected Resources” refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester or biologist). This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

Prior to beginning any treatment activities, the implementing entity will clearly define the boundaries of the treatment area and protected resources on maps for the project area and with highly-visible flagging or clear, existing landscape demarcations.

SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent would design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types.	Yes	NCFF, LTNC, and PUC During	NCFF, LTNC, and PUC

As noted in EC-11, “Land Use,” the proposed project would not conflict with any local plans, policies, or ordinances. As noted in Section EC-12, “Noise,” treatment activities would take place during daytime hours consistent with the Napa County Noise Ordinance.

SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent would: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information would be provided with the notice) if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior-During	NCFF, LTNC, and PUC

At least 3 days prior to the commencement of prescribed burning, the implementing entity will post signs at the closest public roadway to the proposed treatment area describing the activity and timing and publish a public interest notification in a local newspapers or other widely distributed media source.

SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC During-Post	NCFF, LTNC, and PUC

Trash receptacles will not be required on-site. Implementing entities and staff will be instructed to remove all trash generated daily. Following completion of treatment activities, all flagging, trash, debris, and barriers will be removed from the project area.

SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent would post signs in a conspicuous location near the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information would be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.	Yes	NCFF, LTNC, and PUC Prior	NCFF, LTNC, and PUC

One to three days prior to the commencement of a treatment activity, the implementing entity will post signs in a conspicuous location near the project area describing the activity and timing and requesting persons in the area to contact a designated representative.

SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP Program EIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. This SPR applies to all treatment activities and all treatment types.	Yes	NCFF, LTNC, and PUC Prior-During-Post	NCFF, LTNC, and PUC

Information on the proposed treatment project has been submitted to the Board. Once the project is approved and completed, respectively, updated information will be submitted to the Board for online posting on the CalVTP Project Viewer.

SPR AD-8 Request Access for Post-Treatment Assessment. For CAL FIRE projects, during contract development, CAL FIRE would include access to the treated area over a prescribed period (usually up to three years) to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance, as a contract term for consideration by the landowner. For public landowners, access to the treated area over a prescribed period would be a requirement of the executed contract. This SPR applies to all treatment activities and all treatment types.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This project would be funded in part by CAL FIRE but would not be implemented by CAL FIRE; therefore, a contract is not necessary for implementation of treatments. This SPR does not apply to the project. However, as landowner, land manager and implementing entities, NCFF, LTNC, and PUC will access areas post-treatment to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance.

SPR AD-9. Obtain a Coastal Development Permit for Proposed Treatment Within the Coastal Zone Where Required. When planning a treatment project within the Coastal Zone, the project proponent would contact the local Coastal Commission district office, or applicable local government to determine if the project area is within the jurisdiction of the Coastal Commission, a local government with a certified Local Coastal Program (LCP), or both. This SPR applies to all treatment activities and all treatment types.	No	NCFF, LTNC, and PUC N/A	NCFF, LTNC, and PUC

This SPR does not apply to this project because it is entirely outside of the coastal zone.

MANDATORY FINDINGS OF SIGNIFICANCE

	New Impact that is Significant or Potentially Significant	New Impact that is Less Than Significant with Mitigation Incorporated	New Impact that is Less Than Significant Impact	No New Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☐	☒
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion

No additional comments.

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Attachment A

Standard Project Requirements (SPRs) and Mitigation Measures (MMs)

EC-1: AESTHETIC AND VISUAL RESOURCE STANDARD PROJECT REQUIREMENTS

SPR AES-1 Vegetation Thinning and Edge Feathering: The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.

SPR AES-2 Avoid Staging within Viewsheds: The project proponent will store all treatment-related materials, including vehicles, vegetation treatment debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project proponent will also locate materials staging and storage areas outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR AES-3 Provide Vegetation Screening: The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

EC-2: AGRICULTURE AND FOREST RESOURCES

NONE

EC-3: AIR QUALITY STANDARD PROJECT REQUIREMENTS

SPR AQ-1 Comply with Air Quality Regulations: The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

SPR AQ-2 Submit Smoke Management Plan: The project proponent will submit a smoke management plan for all prescribed burns to the applicable air district, in accordance with 17 CCR Section 80160. Pursuant to this regulation a smoke management plan will not be required for burns less than 10 acres that also will not be conducted near smoke sensitive areas, unless otherwise directed by the air district. Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. Example of a smoke management plan is in Appendix PD-2. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.

SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating. The project proponent will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.

SPR AQ-4 Minimize Dust: To minimize dust during treatment activities, the project proponent will implement the following measures:

Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol.

If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations.

Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113.

Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may “cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property,” per Health and Safety Code Section 41700.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR AQ-5 Avoid Naturally Occurring Asbestos: The project proponent will avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per maps and guidance published by the California Geological Survey, unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area. Any NOA-related guidance provided by the applicable air district will be followed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR AQ-6 Prescribed Burn Safety Procedures: An Incident Action Plan (IAP) will be prepared that includes elements that are appropriate for the size and scope of the burn as necessary to ensure personnel and public safety. 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. A safety briefing will be conducted with all resources on site for each operational period for all prescribed burning treatments to ensure personnel safety considerations and prescribed fire objectives. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.

MM AQ-1 Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques: Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible.

Techniques for reducing emissions may include, but are not limited to, the following:

- Diesel-powered off-road equipment used in construction will meet EPA’s Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of

40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment.

  - Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria:
  - meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer;
  - be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables;
  - contain no fatty acids or functionalized fatty acid esters; and
  - have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines.

- Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment.
- Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes.
- Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NO_X and PM.

EC-4: ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES STANDARD PROJECT REQUIREMENTS

Cultural resource SPRs and mitigation measures require that qualified individuals implement components of the measures. The requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including supervised designees) as long as they are qualified.

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

Archaeologically Trained Resource Professional: To be qualified, an archaeologically-trained resource professional would hold a valid Archaeological Training Certificate issued by CAL FIRE and the Board or equivalent state or local agency training or certification. Work performed by an archaeologically-trained resource professional must be reviewed and approved by a qualified archaeologist.

SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, the project proponent will notify the

California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following:

- A written description of the treatment location and boundaries.
- Brief narrative of the treatment objectives.
- A description of the activities used (e.g., prescribed burning, mastication) and associated acreages.
- A map of the treatment area at a sufficient scale to indicate the spatial extent of activities.
- A request for information regarding potential impacts to cultural resources from the proposed treatment.
- A detailed description of the depth of excavation, if ground disturbance is expected.

In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically-trained resource professional and/or qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological or historical resources near or within the treatment area. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. The project proponent, in consultation with culturally affiliated tribe(s), will develop effective protection measures for important cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, enforceable language, and will be included in the survey report in accordance with applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-6 Treatment of Tribal Cultural Resources: The project proponent, in consultation with the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. The project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. The project proponent will defer implementing the treatment until the tribe approves protection measures, or if agreement cannot be reached after a good-faith effort, the proponent determines that any or all feasible measures

have been implemented, where feasible, and the resource is either avoided or protected. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. Within a buffer of 100 feet of the built historical resource, there will be no prescribed burning or mechanical treatment activities Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a qualified archaeologist. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

MM CUL-2 Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources: If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.

EC-5: BIOLOGICAL RESOURCES STANDARD PROJECT REQUIREMENTS

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

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

be conducted by qualified RPFs or biologists with the minimum qualifications required by the appropriate protocols, including having CDFW or USFWS approval to conduct such surveys, if required by certain protocols.

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

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

SPR BIO-1 Review and Survey Project-Specific Biological Resources: The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment, no more than one year prior to the submittal of the PSA for each treatment project, and no more than one year between completion of the PSA and implementation of the treatment project. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this PEIR for the ecoregion(s) where the treatment will occur. It will also include review of the best available, current data for the area, including vegetation mapping data, species distribution/range information, CNDDB, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, relevant BIOS queries, and relevant general and regional plans. Reconnaissance-level biological surveys will be general surveys that include visual and auditory inspection for biological resources to help determine the environmental setting of a project site. The qualified surveyor will 1.) identify and document sensitive resources, such as riparian or other sensitive habitats, sensitive natural community, wetlands, or wildlife nursery site or habitat (including bird nests), and 2.) assess the suitability of habitat for special-status plant and animal species. The surveyor will also record any incidental wildlife observations. For each treatment project, habitat assessments will be completed at a time of year that is appropriate for identifying habitat and no more than one year prior to the submittal of the PSA, unless it can be demonstrated in the Biological Resources Discussion in the PSA that habitat assessments older than one year remain valid (e.g., site conditions are unchanged and no treatment activity has occurred since the assessment). If more than one year passes between completion of the PSA and initiation of the treatment project, the project proponent will verify the continued accuracy of the PSA prior to beginning the treatment project by reviewing for any data updates and/or visiting the site to verify conditions. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment:

1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided**. If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment:
    a. by physically avoiding the suitable habitat, or

b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites).

Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

Special-Status Plants

- For special-status plants not listed under CESA or ESA, to avoid impacts on the annual and perennial geophyte species identified in Table 4.5-2 of the PSA, non-ground-disturbing treatment activities (i.e., manual treatments, herbicide application, prescribed herbivory, and prescribed burning) would be implemented only during the dormant season for these species (i.e., when the plant has no aboveground parts), which would typically occur after seed set and before germination, if feasible. 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). If the limited operating period for annual and perennial geophyte species (i.e., only non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys would be required per SPR BIO-7. Note that ground-disturbing treatment activities (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted without prior implementation of SPR BIO-7).
- If locally rare plant species of the County of Napa are identified during protocol-level surveys Mitigation Measure BIO-1b would apply. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the locally rare plant species within the County of Napa and design treatments to avoid a substantial loss of the locally rare species to the maximum extent feasible.

Special-Status Wildlife

- To avoid impacts on foothill yellow-legged frog and California giant salamander, a no-disturbance buffer of 200 feet will be implemented adjacent to all aquatic resources (streams, ponds, wetlands, seeps) identified as suitable for these species by a qualified biologist. If the 200-foot no-disturbance buffer is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented within suitable habitat areas.
- To avoid impacts on northern spotted owl, the following measures will be implemented:
  - To determine whether a documented northern spotted owl nesting occurrence is present within 0.25 mile of the treatment area, a qualified RPF or biologist will review northern spotted owl occurrence data in the CNDDB and the project proponent will contact Pacific Union College and Land Trust of Napa County to obtain any recent survey and occurrence data for northern spotted owl that have not been made publicly available (e.g., in the CNDDB).
  - At the time of preparation of this PSA in 2023, records are documented in the Glendale Ranch/Linda Falls Preserve Forest Health treatment area, and the Pacific Union College Forest Health treatment area. Northern spotted owl protections will apply to habitat suitable for the

species in these treatment areas. Protection measures may also be extended to additional areas based on the recommendation of the qualified RPF or biologist, or in response to newly available public records of this species' presence.

- If a nest is present or habitat is unsurveyed and has been assessed as having potential for northern spotted owl nesting to occur, potential impacts on the nesting occurrence will be avoided by implementing a limited operating period within 0.25 mile of the nesting habitat during the northern spotted owl nesting season (February 1–July 31) for mechanical treatments, and manual treatments. The limited operating period will be applied through the nesting and fledgling season (February 1 – September 15) for prescribed burning activities (i.e., pile burning and broadcast burning). If either limited operating period is determined to be infeasible, then SPR BIO-10 will be implemented. To avoid impacts on northern spotted owl, a limited operating period for mechanical treatments, manual treatments, herbicide application, prescribed burning, and prescribed herbivory from February 1 to August 31 will be implemented, if feasible. If conducting some treatments outside of the nesting bird season is determined to be infeasible, then SPR BIO-10 will be implemented.

- To avoid impacts on ringtail, a limited operating period for mechanical treatments and prescribed burning activities from April 15 to July 31 will be implemented, if feasible. If conducting some mechanical and prescribed burning treatments outside of the ringtail maternity season is determined to be infeasible for certain treatments, then SPR BIO-10 will be implemented.
- To avoid impacts on special-status bat maternity colonies, a limited operating period for mechanical treatments, manual treatments, and prescribed burning from April 1 to August 31 will be implemented, if feasible. If it is infeasible to follow the limited operating period, focused or protocol-level surveys will be required per SPR BIO-10.
- Because there is no reliable season during which all impacts on Crotch's bumble bee could be avoided and avoidance of habitat is not feasible due to these species' variable habitat preferences, implementation of SPR BIO-10 for these species would be required before all treatment activities.

SPR BIO-2 Require Biological Resource Training for Workers: The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. The training will instruct workers when it is appropriate to stop work and allow wildlife encountered during treatment activities to leave the area unharmed and when it is necessary to report encounters to a qualified RPF, biologist, or biological technician. The qualified RPF, biologist, or biological technician will immediately contact CDFW or USFWS, as appropriate, if any wildlife protected by the California Endangered Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (without being handled). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

If County of Napa sensitive biotic communities or biotic communities of limited distribution are found during protocol-level surveys Mitigation Measure BIO-3a would apply. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the sensitive biotic communities or biotic communities of limited distribution within the County of Napa and design treatments to avoid a substantial loss of these communities to the maximum extent feasible.

SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will:

- require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of *A Manual of California Vegetation* (including updated natural communities data at http://vegetation.cnps.org/), or referring to relevant reports (e.g., reports found on the VegCAMP website).
- map and digitally record, using a Global Positioning System (GPS), the limits of any potential sensitive habitat and sensitive natural community identified in the treatment area.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats:

- Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities.
- Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species.
- Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements.
- Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see *Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service*).
- Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided.
- Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. This will consist of the minimum disturbance area necessary to reduce

hazardous fuels and return the riparian community to a natural fire regime (i.e., Condition Class 1) considering historic fire return intervals, climate change, and land use constraints.

- Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry.
- The project proponent will notify CDFW pursuant to California Fish and Game Code Section 1602 prior to implementing any treatment activities in riparian habitats. Notification will identify the treatment activities, map the vegetation to be removed, identify the impact avoidance identification methods to be used (e.g., flagging), and appropriate protections for the retention of shaded riverine habitat, including buffers and other applicable measures to prevent erosion into the waterway.
- In consideration of spatial variability of riparian vegetation types and condition and consistent with California Forest Practice Rules Section 916.9(v) (February 2019 version), a different set of vegetation retention standards and protection measures from those specified in the above bullets may be implemented on a site-specific basis if the qualified RPF and the project proponent demonstrate through substantial evidence that alternative design measures provide a more effective means of achieving the treatment objectives and would result in effects to the Beneficial Functions of Riparian Zones equal or more favorable than those expected to result from application of the above measures. Deviation from the above design specifications, different protection measures and design standards will only be approved when the treatment plan incorporates an evaluation of beneficial functions of the riparian habitat and with written concurrence from CDFW.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

- When burn piles are located within 100’ of creeks
  - Piles shall be burned and upon completion and prior to heavy rain (excess of 1” per 24-hour period) will be covered with coconut coir jute netting. Netting must cover the limits of the burned area and be affixed using surrounding leaf litter or dead plant material. Where possible, buildup of dead material (humus) in the area downslope of the burn scar will help mitigate transport and increase infiltration and adsorption. A minimum of 2-3 inches of leaf, pine needle, and twig humus material should be placed on top to visibly cover the netting and increase local saturation.
  - No pile burning would occur within 50 feet of the creek.
  - Burn Piles should be forecasted, to the extent possible, with consideration for heavy rain (excess of 1” per 24-hour period), and would not occur within 3-days of a forecasted event to allow adequate time for burning, heat dissipation, and full covering of remnants. Burning piles in the upper watershed (>100 feet away from creeks) around large rain events should reduce loading and decrease initial transport as compared to piles in closer proximity to the 100' setback (no piles within the setback should be burned in close proximity to these events.
- Burn piles should be placed consecutively at further distance from the creek to spread the total area where carbon excess will be present
- Burn times should be managed over multiple rain seasons to mitigate excess high-loading during first flush and subsequent events
- Planning of burn events should consider the number of piles and proximity to distribute nutrient concentrations and loading in a given area

SPR BIO-5 Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub: The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. An ecological definition of type conversion is used in the CalVTP PEIR for assessment of environmental effects: a change from a

vegetation type dominated by native shrub species that are characteristic of chaparral and coastal sage scrub vegetation alliances to a vegetation type characterized predominantly by weedy herbaceous cover or annual grasslands. For the PEIR, type conversion is considered in terms of habitat function, which is defined here as the arrangement and capability of habitat features to provide refuge, food source, and reproduction habitat to plants and animals, and thereby contribute to the conservation of biological and genetic diversity and evolutionary processes (de Groot et al. 2002). Some modification of habitat characteristics may occur provided habitat function is maintained (i.e., the location, essential habitat features, and species supported are not substantially changed).

During the reconnaissance-level survey required in SPR BIO-1, a qualified RPF or biologist will identify chaparral and coastal sage scrub vegetation to the alliance level and determine the condition class and fire return interval departure of the chaparral and/or coastal sage scrub present in each treatment area.

For all treatment types in chaparral and coastal sage scrub, the project proponent, in consultation with a qualified RPF or qualified biologist will:

- Develop a treatment design that avoids environmental effects of type conversion in chaparral and coastal sage scrub vegetation alliances, which will include evaluating and determining the appropriate spatial scale at which the proponent would consider type conversion, and substantiating its appropriateness. The project proponent will demonstrate with substantial evidence that the habitat function of chaparral and coastal sage scrub would be at least maintained within the identified spatial scale at which type conversion is evaluated for the specific treatment project. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, spatial needs of sensitive species, presence of sufficient seed plants and nurse plants, light availability, and edge effects may inform the determination of an appropriate spatial scale.
- The treatment design will maintain a minimum percent cover of mature native shrubs within the treatment area to maintain habitat function; the appropriate percent cover will be identified by the project proponent in the development of treatment design and be specific to the vegetation alliances that are present in the identified spatial scale used to evaluate type conversion. Mature native shrubs that are retained will be distributed contiguously or in patches within the stand. If the stand consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity, to the extent needed to avoid type conversion.

These SPR requirements apply to all treatment activities and all treatment types, including treatment maintenance.

Additional measures will be applied to ecological restoration treatment types:

- For ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral and coastal sage scrub vegetation types.
- Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval (i.e., time since last burn is less than the average time listed as the fire return interval range in Table 3.6-1) unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved.
- A minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 60 percent, post treatment shrub canopy density will be no less than 40 percent). A different percent relative cover can be retained if the project proponent demonstrates with substantial evidence that alternative treatment design measures would result in effects on the habitat function of chaparral and coastal sage scrub that are equal or more favorable than those expected to result from application of the above measures. Biological considerations that may inform a deviation from the minimum 35 percent relative cover retention include but are not limited to soil moisture requirements, increased soil temperatures, changes in light/shading, presence of sufficient seed plants and nurse plants, erosion potential, and site hydrology.

- If the stand within the treatment area consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity.

These SPR requirements apply to all treatment activities and only the ecosystem restoration treatment type, including treatment maintenance.

A determination of compliance with the SB 1260 prohibition of type conversion in chaparral and coastal sage scrub is a statutory issue separate from CEQA compliance that may involve factors additional to the ecological definition and habitat functions presented in the PEIR, such as geographic context. It is beyond the legal scope of the PEIR to define SB 1260 type conversion and statutory compliance. The project proponent, acting as lead agency for the proposed later treatment project, will be responsible for defining type conversion in the context of the project and making the finding that type conversion would not occur, as required by SB 1260. The project proponent will determine its criteria for defining and avoiding type conversion and, in making its findings, may draw upon information presented in this PEIR.

SPR BIO-6 Prevent Spread of Plant Pathogens: When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement the following best management practices to prevent the spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle):

- clean and sanitize vehicles, equipment, tools, footwear, and clothes before arriving at a treatment site and when leaving a contaminated site, or a site in a county where contamination is a risk;
- include training on *Phytopthora* diseases and other plant pathogens in the worker awareness training;
- minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment;
- minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination;
- clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area; and
- follow the procedures listed in Guidance for plant pathogen prevention when working at contaminated restoration sites or with rare plants and sensitive habitat (Working Group for *Phytoptheras* in Native Habitats 2016).

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities."

Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status.

If potentially occurring special-status plants are listed under CESA or ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS.

For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.1 of this PEIR, surveys will not be required under the following circumstances:

- If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys.
- If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

- For special-status plants not listed under ESA or CESA, if the limited operating period for annual and perennial geophyte species (i.e., non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys for these species will be conducted prior to implementation of treatments.
- Listed locally rare plant species are identified in the Napa County Baseline Data Report (Napa County 2005). If locally rare plant species of the County of Napa are identified during protocol-level surveys Mitigation Measure BIO-1b would apply. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the locally rare plant species within the County of Napa and design treatments to avoid a substantial loss of the locally rare species to the maximum extent feasible.

SPR BIO-9 Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife: The project proponent will take the following actions to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (e.g., New Zealand mudsnail):

- clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife;
- for all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species;
- inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas;
- stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area;
- identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatment methods will be selected based on the invasive species present and may include herbicide

application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles;

- treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and
- implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (Cal-IPC 2012, or current version).

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries, monarch overwintering sites) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols.

The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

- If the 200-foot no-disturbance buffer for California giant salamander and foothill yellow-legged frog is determined to be infeasible, to avoid impacts on the species, focused visual encounter surveys for these species will be conducted for the species prior to treatment activities within 200 feet of aquatic habitat determined to be suitable for these species by a qualified biologist (i.e. streams, ponds, wetlands, seeps) prior to implementing treatment activities. If foothill yellow-legged frogs or California giant salamander are identified during focused surveys, Mitigation Measure BIO-2b will be implemented.
- Burn piles which are located within suitable dispersal habitat for California giant salamander, foothill yellow-legged frog, or western pond turtle (as determined by a qualified biologist or RPF) would be inspected prior to ignition to prevent injury to wildlife. Inspections may involve lifting and moving portions of the debris piles. If sensitive wildlife is suspected to be present in the burn pile, further disturbance would immediately cease and the pile would not be ignited until a subsequent inspection determines that the wildlife has fled the area.
- To avoid impacts on western pond turtle, focused visual encounter surveys for the species and for burrows will be conducted within habitat areas suitable for the species prior to treatment activities within approximately 1,500 feet of aquatic habitat (i.e., streams, ponds). If burrows potentially suitable for western pond turtle are detected, the RPF or qualified biologist will inspect the burrow to determine whether it is occupied (e.g., using a burrow scope). If western pond turtles are identified during focused surveys, Mitigation Measure BIO-2b for this species will be implemented.

- If the limited operating period for northern spotted owl is determined to be infeasible, to avoid impacts on the species, protocol-level surveys for northern spotted owl will be conducted by a qualified RPF or biologist within a 0.25-mile buffer surrounding the treatment area prior to 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 identified during protocol-level surveys, Mitigation Measure BIO-2a will be implemented.
  - The qualified RPF or biologist will utilize the USFWS Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis-Coast Redwood Region, dated (revised) November 2019.
  - To provide flexibility and recognizing that conditions change over time, the ultimate decision of where protocol-level surveys will be conducted will be determined by the implementing qualified RPF or biologist, however, protocol-level northern spotted owl survey are expected to be required Glendale Ranch/Linda Falls Preserve Forest Health treatment area, and the Pacific Union College Forest Health treatment area, where previous records of the species are documented. Based on the recommendation of the qualified RPF or biologist, additional areas may be included or existing survey areas changed, in order to best provide survey coverage within suitable habitat in the treatment area. If the limited operating period for white-tailed kite is determined to be infeasible, to avoid impacts on white-tailed kite, focused surveys (i.e., nest searches) for nests of this species will be conducted prior to implementing treatment activities during the nesting bird season (February 1–October 31). If the limited operating period for nesting birds is determined to be infeasible, to avoid impacts on special-status birds (i.e., American peregrine falcon, bald eagle, golden eagle, purple martin, tricolored blackbird yellow warbler, and yellow breasted chat), focused surveys (i.e., nest searches) for nests of these species will be conducted prior to implementing treatment activities during the nesting bird season (February 1–September 15). If active special-status bird nests are observed during focused surveys, then mitigation measures BIO-2a (for American peregrine falcon, bald eagle, golden eagle, tricolored blackbird, and white-tailed kite) and BIO-2b (for purple martin, yellow warbler, and yellow-breasted chat) will be implemented.
- Because no-disturbance buffers and limited operating periods for American badgers are not feasible, to avoid impacts on American badgers, a focused survey for the species and for potential dens will be conducted prior to implementing treatments in habitat suitable for the species (i.e., grassland, open woodland). If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b will be implemented.
- If the limited operating period for ringtail is determined to be infeasible, to avoid impacts on the species, focused surveys for ringtail, including non-invasive survey methods (e.g., trail cameras, track plates, hair snares), will be conducted prior to implementing mechanical treatments and prescribed burning during the ringtail maternity season (April 15–July 31). If presence of ringtail is assumed or an active den is identified during focused surveys by a qualified RPF or biologist, Mitigation Measure BIO-2a will be implemented.
- If the limited operating period for special-status bats is determined to be infeasible, to avoid impacts on special-status bats (i.e., pallid bat, Townsend's big-eared bat, western red bat), focused surveys for maternity roosts of these species will be conducted prior to implementing manual, mechanical, and prescribed burning treatment activities during the bat maternity season (April 1–August 31). If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats will be implemented.
- Because limited operating periods for special-status bumble bees are not feasible to avoid impacts on Crotch's bumble bee, a focused survey for the species will be conducted prior to implementing treatments in habitat suitable for the species or presence will be assumed. The survey will be developed based on the CDFW publication Survey Considerations for CESA Candidate Bumble

Bees (CDFW 2023). In addition, the survey protocol for rusty-patched bumble bee (USFWS 2018) may be adapted for the special-status bumble bees in the project area. If special-status bumble bees are detected during focused surveys or assumed to be present in the project area, Mitigation Measure BIO-2g will be implemented.

SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). If temporary fencing is required for prescribed herbivory treatment, a wildlife-friendly fencing design will be used. The project proponent will require a qualified RPF or biologist to review and approve the design before installation to minimize the risk of wildlife entanglement. The fencing design will meet the following standards:

- Minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale or snag a leaping animal; and, if feasible, keeping electric netting-type fencing electrified at all times or laid down while not in use.
- Charge temporary electric fencing with intermittent pulse energizers; continuous output fence chargers will not be permitted.
- Allow wildlife to jump over easily without injury by installing fencing that can flex as animals pass over it and installing the top wire low enough (no more than approximately 40 inches high on flat ground) to allow adult ungulates to jump over it. The determination of appropriate fence height will consider slope, as steep slopes are more difficult for wildlife to pass.
- Be highly visible to birds and mammals by using high-visibility tape or wire, flagging, or other markers.

This SPR applies only to prescribed herbivory and all treatment types, including treatment maintenance.

SPR BIO-12 Protect Common Nesting Birds, Including Raptors: The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP PEIR. The active nesting season will be defined by the qualified RPF or biologist.

If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typically involving walking throughout the survey area, visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food).

If an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent will implement a feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following measures:

- **Establish Buffer.** The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities will be implemented outside of the buffer. The buffer location will be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.
- **Modify Treatment.** The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment modifications will be determined by the project proponent in coordination with the qualified RPF or biologist.
- **Defer Treatment.** The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.

Feasible actions will be taken by the project proponent to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies will be determined by the project proponent based on whether implementation of this SPR will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. Considerations may include limitations on the presence of environmental and atmospheric conditions necessary to execute treatment prescriptions (e.g., the limited seasonal windows during which prescribed burning can occur when vegetation moisture, weather, wind, and other physical conditions are suitable). If it is infeasible to avoid loss of common bird nests (not including raptor nests), the project proponent will document the reasons implementation of the avoidance strategies is infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

The following avoidance strategies may also be considered together with or in lieu of other actions for implementation by a project proponent to avoid disturbance to raptor nests:

- **Monitor Active Raptor Nest During Treatment**. A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors are showing signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases.
- **Retention of Raptor Nest Trees**. Trees with visible raptor nests, whether occupied or not, will be retained.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

MM BIO-1a Avoid Loss of Special-Status Plants Listed under ESA or CESA: If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway), exceptions to this requirement are listed later in this measure. The no-disturbance buffers will generally be a minimum of 50 feet from listed plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid killing or damaging listed plants or that a

larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate buffer size will be determined based on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. For example, paint-on or wicking application of herbicides to invasive plants may be implemented within 50 feet of listed plant species without posing a risk, especially if the listed plants are dormant at the time of application. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 50 feet from a listed plant, a qualified RPF or botanist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report) with a science-based justification for the deviation. No fire ignition (and associated use of accelerants) will occur within 50 feet of listed plants.

For species listed under ESA or CESA, if the project proponent cannot avoid loss by implementing no-disturbance buffers, the project proponent will implement Mitigation Measure BIO-1c.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist, in consultation with CDFW and USFWS, as appropriate depending on species status and location, that the listed plants would benefit from treatment in the occupied habitat area even though some of the listed plants may be lost during treatment activities. For a treatment to be considered beneficial to listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to listed plants, no compensatory mitigation for loss of individuals will be required.

MM BIO-1b Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA: If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement the following measures to avoid loss of individuals and maintain habitat function of occupied habitat:

- Physically avoid the area occupied by the special-status plants by establishing a no-disturbance buffer around the area occupied by species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damaging to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate size and shape of the buffer zone will be determined by a qualified RPF or botanist and will depend on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform an appropriate buffer size and shape.
- Treatments may be conducted within this buffer if the potentially affected special-status plant species is a geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank.

- Treatments will be designed to maintain the function of special-status plant habitat. For example, for a fuel break proposed in treatment areas occupied by special-status plants, if the removal of shade cover would degrade the special-status plant habitat despite the requirement to physically or seasonally avoid the special-status plant itself, habitat function would be diminished and the treatment would need to be modified or precluded from implementation.
- No fire ignition (and associated use of accelerants) will occur within the special-status plant buffer.

A qualified RPF or botanist with knowledge of the special-status plant species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment would not maintain habitat function of the special-status plant habitat (i.e., the habitat would be rendered unsuitable) or because the loss of special-status plants would substantially reduce the number or restrict the range of a special-status plant species. If the project proponent determines the impact on special-status plants would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status plants or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-1c will be implemented.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the special-status plants would benefit from treatment in the occupied habitat area even though some of the non-listed special-status plants may be killed during treatment activities. For a treatment to be considered beneficial to non-listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.

PROJECT-SPECIFIC IMPLEMENTATION

- If locally rare plant species of the County of Napa are identified in protocol-level survey, Mitigation Measure BIO-1b would apply. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the locally rare plant species within the County of Napa and design treatments to avoid a substantial loss of the locally rare species to the maximum extent feasible.
- **Napa false indigo:** Pursuant to Mitigation Measure BIO-1b, pile burning would not be carried out within 50 feet of Napa false indigo plants because piles burn hot enough to kill seeds in the soil bank and could scorch live Napa false indigo shrubs; however, broadcast burning within approximately 5 feet of Napa false indigo plants would provide beneficial effects for these plants by eliminating competitors, stimulating germination, and exposing bare mineral soil on which new seedlings can establish. The final buffer size would be determined by a qualified biologist or RPF based on site-specific conditions (e.g., fuel loading around the Napa false indigo plants); the buffer would protect individual Napa false indigo plants from burning or scorching during broadcast burning while also allowing stimulation of the seed bank. Manual treatments are also proposed in areas occupied by this species, but individual plants would be avoided. Although Mitigation Measure BIO-1b will require establishing a minimum 50-foot no-disturbance buffer around special-status plants, exceptions to this buffer are proposed for manual treatments immediately adjacent to individual Napa false indigo shrubs to remove other plant species that are competing with this species for sunlight, water, and other resources.

MM BIO-2a Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities): If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following.

Avoid Mortality, Injury, or Disturbance of Individuals

The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals:

1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied habitat such that mortality, injury, or disturbance of the species will not occur, as determined by a qualified RPF or biologist using the most current and commonly-accepted science and considering published agency guidance; OR
2. Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species.
    - For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c.
    - Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided.

Maintain Habitat Function

The project proponent will design treatment activities to maintain the habitat function, by implementing the following:

- While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science.
- If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained.

A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If consultation determines that the treatment will not

maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c.

PROJECT-SPECIFIC IMPLEMENTATION

If California Fully Protected Species or species listed under ESA or CESA are observed during focused or protocol-level surveys (conducted pursuant to SPR BIO-10) or assumed to be present, the project proponent will avoid adverse effects to the species by implementing the following.

Northern Spotted Owl

- If active northern spotted owl nests are detected during focused surveys, a no-disturbance buffer of at least 0.25 mile would be established around active nests for northern spotted owl. No treatment activities will occur within this buffer until the owlets have completed their branching stage and have fully fledged as determined by a qualified RPF or biologist. Deviation from this 0.25 mile buffer size at the recommendation of the qualified RPF or biologist may be determined utilizing the USFWS document tiled “Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California.” Additionally, this USFWS document has since been updated as of October 1, 2020.
- No northern spotted owl nest trees will be removed, and no trees providing upper-level canopy cover to or around nest trees will be removed, year-round.
- Canopy cover within forest habitats occupied or potentially occupied by northern spotted owl 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.
- Two to five snags would be retained per acre, with a preference for the largest snags that exhibit the form and decay characteristics favored by northern spotted owl and other wildlife.

Other Special-Status Birds

- If active special-status bird nests are detected during focused surveys, a no-disturbance buffer of at least 0.5 mile would be established around active nests for golden eagle, American peregrine falcon, and bald eagle, 0.25 mile for white-tailed kite nests, and at least 100 feet around the nests of other special-status birds, and no treatment activities will occur within this buffer until the chicks have fledged as determined by a qualified RPF or biologist.
- Additionally, trees containing bald eagle nests will not be removed pursuant to the Bald and Golden Eagle Protection Act.

Ringtail

If the limited operating period for ringtail is determined to be infeasible and ringtails are assumed present or detected during focused surveys implemented under SPR BIO-10, then the following avoidance and minimization measures will be required for mechanical and prescribed burning treatment activities:

- **Year-Round Take Avoidance Measures**. During mechanical treatment activities in heavy brush habitat (e.g., dense conifer saplings, blackberry, shrubs), and after the standard equipment warm-up period, heavy machinery activities in heavy brush habitat will be conducted slowly and cautiously. For example, the head of a masticator will pause above a patch of heavy brush for several seconds before removing the brush. A qualified RPF or biologist will explain this process to contractors and will observe mechanical treatments on the first day of work to ensure that the methods are understood and implemented properly; this could be combined with other pre-activity survey or contractor awareness training requirements. Contractors will watch for ringtail as they masticate in heavy brush. If a ringtail is observed, the contractor will direct treatment activities to halt, and the ringtail will be allowed to leave the area unharmed before treatment begins. If a ringtail

is observed outside of maternity season, the qualified RPF or biologist will be contacted and will perform a sweep of the treatment area before work resumes. If the qualified RPF or biologist observes a resting ringtail or active non-maternity den, treatment activities will not occur within that day's treatment area until the ringtail leaves the area on its own. If the qualified RPF or biologist observes a ringtail or confirms the contractor's observation (i.e., based on contractor description or photograph), the occurrence will be reported to CDFW (Robynn.Swan@wildlife.ca.gov).

- **Den Surveys**. Within seven days prior to the start of mechanical and prescribed burning treatments during the ringtail maternity season, a qualified RPF or biologist will conduct a den search in the treatment area to be treated the next week. The qualified RPF or biologist will search for large trees (i.e., greater than 12 inches diameter at breast height [dbh]) with appropriate cavities (i.e., holes larger than 3 inches in diameter, cavities extending approximately 12 inches down from the cavity hole). If found, the qualified RPF or biologist will inspect the cavity using a cell phone with a flash, or other tools (e.g., borescopes) to determine whether ringtails are present. Areas (e.g., large trees) with appropriate den habitat, occupied or not, will be marked (i.e., with flagging, spray paint), for inspection during future sweeps (as described below). The qualified RPF or biologist will also search for dens in dense brush habitat before mechanical and prescribed burning treatments and will note any sightings of fleeing adult ringtails.
- **Active Dens**. If active ringtail dens are discovered during a den survey or daily sweep, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and mechanical and prescribed burning treatments will not proceed within the buffer until at least the end of the ringtail maternity season (July 31). The qualified RPF or biologist will confirm that the den is unoccupied before treatment activities resume. The 0.25-mile buffer will incorporate the den and an area greater than the typical ringtail home range in northern California (Wyatt, pers. comm., 2021). If an active den is discovered, CDFW (Robynn.Swan@wildlife.ca.gov) will be notified of the den and buffer location. CDFW will be provided an opportunity to visit the site and provide technical information on the size and shape of the den buffer.
- **Daily Sweeps**. If active ringtail dens are not discovered, daily sweeps will be implemented to avoid inadvertent destruction of active dens that eluded detection during the den search as well as take of adult ringtails and kits. On the first morning of work for mechanical treatments, a qualified RPF or biologist will conduct a sweep of the area to be treated and will search all habitat suitable for ringtails where mastication will occur that day (i.e., larger trees, heavy brush, rock piles) for active dens or adults, including the trees with cavities previously marked by the qualified RPF or biologist. On following days, a trained contractor will search all areas previously marked by the qualified RPF or biologist for active dens (see training requirements below under "Training and Monitoring"). Before a prescribed burn, a qualified RPF or biologist will search all habitat suitable for ringtails that would be burned (i.e., heavy brush, burn piles, large trees). If an active den is discovered during a daily sweep, the qualified RPF or biologist will be notified, all work will stop, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and the requirements described above under "Active Dens" will be followed.
- **Training and Monitoring**. On the first morning of work for mechanical treatments and before a prescribed burn is initiated, the qualified RPF or biologist will provide biological resource training (as required under CalVTP PEIR SPR BIO-2) for all contractors. In addition to standard biological resource training, the qualified RPF or biologist will provide additional training specific to ringtail that will include the following elements:
  - Description of ringtail appearance (i.e., physical features, typical size); description of typical ringtail behavior; and description of denning habitat suitable for ringtail, particularly in that week's treatment area. The approximate location of large trees with cavities that were previously marked will be noted;
  - Measures required during operation, including daily sweeps of habitat suitable for ringtail where mastication will occur that day (i.e., heavy brush habitat, previously marked tree cavities), year-

round take avoidance measures, and required increased vigilance when operating in heavy brush;

- Measures required if a ringtail is spotted (i.e., all work halts until a qualified RPF or biologist can conduct a den search and sweep; if the qualified RPF or biologist observes a ringtail or confirms the contractor's observation, the occurrence will be reported to CDFW at Robynn.Swan@wildlife.ca.gov);
- Measures required if a ringtail den is found (i.e., 0.25-mile no-disturbance buffer and requirements described above under "Active Dens" will be followed);
- Definition of and legal consequences for take of ringtail (i.e., $10,000 fine for each take and/or 1 year in jail); and Requirements for contacting CDFW (Robynn.Swan@wildlife.ca.gov), which include the following circumstances: ringtails observed during treatment activities (notify within 3 business days); and active ringtail den discovered (notify within 24 hours); and take of ringtail occurs (notify within 24 hours).

MM BIO-2b Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities): If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following.

Avoid Mortality, Injury, or Disturbance of Individuals

The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals:

- For all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around occupied sites (e.g., nests, dens, roosts, middens, burrows, nurseries). Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance; however, buffers will generally be a minimum of 100 feet, unless site conditions indicate a smaller buffer would be sufficient for protection or a larger buffer would be needed. Factors to be considered in determining buffer size will include, but not be limited to, the species' tolerance to disturbance; the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; baseline levels of noise and human activity; and treatment activity. Buffer size may be adjusted if the qualified RPF or biologist determines that such an adjustment would not be likely to adversely affect (i.e., cause mortality, injury, or disturbance to) the species within the nest, den, burrow, or other occupied site. If a no-disturbance buffer is reduced below 100 feet from an occupied site, a qualified RPF or biologist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).
- No-disturbance buffers will be marked with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). No activity will occur within the buffer areas until the qualified RPF or biologist has determined that the young have fledged or dispersed; the nest, den, or other occurrence is no longer active; or reducing the buffer would not likely result in disturbance, mortality, or injury. A qualified RPF, biologist, or biological technician may will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment if the treatment activity has the potential to result in mortality, injury, or disturbance. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The

qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in mortality, injury or disturbance to special-status species.

- For prescribed burning, the project proponent will implement the treatment outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, the qualified RPF or biologist will determine the period of time within which prescribed burning could occur that will avoid or minimize mortality, injury, or disturbance of the species. The project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate limited operating periods.

Maintain Habitat Function

For all treatment activities, the project proponent will design treatment activities to maintain the habitat function by implementing the following:

- While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; tree snags; large raptor nests [including inactive nests]; downed woody debris). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science.
- If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that special-status wildlife with specific requirements for high canopy cover (e.g., northern goshawk, Sierra Nevada snowshoe hare) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted) such that the habitat function is maintained.
- A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding habitat function.

A qualified RPF or biologist with knowledge of the special-status wildlife species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status wildlife species' habitat or because the loss of special-status wildlife would substantially reduce the number or restrict the range of a special-status wildlife species. If the project proponent determines the impact on special-status wildlife would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status wildlife or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the non-listed special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to non-listed special-status wildlife, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to

canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non-listed special-status species would benefit from the treatment.

PROJECT-SPECIFIC IMPLEMENTATION

If other (i.e., non-listed) special-status wildlife species are observed during focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following.

- If California giant salamander, foothill yellow-legged frog, or western pond turtle are detected during focused surveys, the project proponent will require flagging areas for avoidance in which no treatment activities will occur, biological monitoring, or other measures recommended by CDFW as necessary to avoid injury to or mortality of these species. If impacts will remain significant under CEQA and the project proponent determines that additional mitigation is necessary to reduce significant impacts, Mitigation Measure BIO-2c will be required, and incidental take permitting under CESA may be required pursuant to consultation with CDFW. If active special-status bird nests are detected during focused surveys, a no-disturbance buffer of at least 100 feet will be established around the nests or colonies of purple martin, tricolored blackbirds, yellow warbler, and yellow-breasted chat, and no treatment activities will occur within this buffer until the chicks have fledged as determined by a qualified RPF or biologist.
- If American badgers are detected during focused surveys or assumed present, 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.
- If special-status bat roosts are identified during focused surveys, a no-disturbance buffer of 250 feet would be established around active pallid bat, Townsend's big-eared bat, and western red bat roosts and mechanical treatments, manual treatments, and prescribed burning would not occur within this buffer.

MM BIO-2e Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities): If federally listed butterflies are identified as occurring or having potential to occur during review and surveys for SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, then the following measures will be implemented:

- Treatment areas within the range of these species will be surveyed for the host plant for each species (Table 3.6-34).
- Host plants for federally listed butterflies within the occupied habitat will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants.
- Because prescribed herbivory could result in the indiscriminate removal of the host plants for federally listed butterflies, this treatment type will not be used within occupied habitat of any federally listed butterfly species, unless it is known that the host plant is unpalatable to the herbivore.
- Treatment areas that are not occupied but are within the range of the federally listed butterfly will be divided into as many treatment units as feasible such that the entirety of the habitat is not treated within the same year.
- Treatments will be conducted in a patchy pattern to the extent feasible in areas that are not occupied but are within the range of the federally listed butterfly, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained.

If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of federally listed butterflies or degradation of occupied habitat (host plants) such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.

CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed butterflies or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA, because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status butterflies or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.

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

Butterfly Species	Host Plants
bay checkerspot butterfly	dwarf plantain (*Plantago virginica*), purple owl's clover (*Castilleja exserta*)
Behren's silverspot butterfly	blue violet (*Viola adunca*)
callippe silverspot butterfly	California golden violet (*Viola pedunculata*)
Carson wandering skipper	salt grass (*Distichlis spicata*)
El Segundo blue butterfly	seacliff buckwheat (*Eriogonum parvifolium*)
Hermes copper butterfly	spiny redberry (*Rhamnus crocea*)
Kern primrose sphinx moth	plains evening-primrose (*Camissonia contorta*), field primrose (*Camissonia campestris*)
Laguna Mountains skipper	Cleveland's horkelia (*Horkelia clevelandii*), sticky cinquefoil (*Drymocallis glandulosa*)
Lange's metalmark butterfly	naked-stemmed buckwheat (*Eriogonum nudum*)
lotis blue butterfly	seaside bird's foot trefoil (*Hosackia gracilis*)
Mission blue butterfly	lupine (*Lupinus* spp.)
Myrtle's silverspot butterfly	blue violet
Oregon silverspot butterfly	blue violet
Palos Verdes blue butterfly	Santa Barbara milkvetch (*Astragalus trichopodus*), common deerweed (*Acmispon glaber*)
San Bruno elfin butterfly	broadleaf stonecrop (*Sedum spathulifolium*), manzanita (*Arctostaphylos* spp.), huckleberry (*Vaccinuum* spp.)
Smith's blue butterfly	seacliff buckwheat, seaside buckwheat (*Eriogonum latifolium*)
Quino checkerspot butterfly	dwarf plantain, purple owl's clover

PROJECT-SPECIFIC IMPLEMENTATION

To avoid impacts on monarch butterfly, the following measures will be implemented:

- Treatments will be designed to retain milkweed (*Asclepias* spp.) plants in the project area as feasible. Large patches of milkweed plants in a treatment area will be marked with high-visibility flagging, fencing, stakes, or other methods, and these plants will not be removed or trampled during treatment activities.
- Treatments will be conducted in a patchy pattern in habitat suitable for monarch, such that the entirety of the habitat is not burned or removed, and untreated portions of suitable habitat are retained.

Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees:
If special-status bumble bees are identified as occurring during review and surveys under SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, or if suitable habitat for special-status bumble bees is identified during review and surveys under SPR BIO-1 (e.g., wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species), then the project proponent will implement the following measures, as feasible:

- Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season.
- Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.

- Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area).
- Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September).

CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed bumble bees (in the event the Candidate listing is confirmed), or degradation of occupied (or assumed to be occupied) habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status bumble bees would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status bumble bees or degradation of occupied (or assumed to be occupied) habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee species would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to special-status bumble bee species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.

PROJECT-SPECIFIC IMPLEMENTATION

To avoid impacts on Crotch's bumble bee, the following measures will be implemented:

- Herbicides will not be applied to flowering native plants within occupied or suitable habitat during the flight season (March through September), and herbicide application will not target native flowering plants while blooming. Herbicide application will be conducted with ground-level application only (i.e., paint-on stems, backpack hand-applicator, hypo-hatchet tree injection, or hand placement of pellets). No aerial spray of herbicides will occur.
- Prescribed burning and biomass disposal will be designed to avoid overwintering bumble bees and bumble bee floral resources:
    - Chips will not be placed on or within 5 feet of habitat that is likely suitable for a bumble bee nest (e.g., existing burrows, cavities).

- Burn piles that remain on site for greater than one year will be surveyed for bumble bee nests prior to burning by a CDFW-reviewed bumble bee biologist, or they will be burned during the season when bumble bees are inactive (October through February).
- Broadcast burning in habitat suitable for sensitive bumble bees will be restricted to the winter season prior to emergence of bumble bee floral resources. Generally, prescribed burning will be limited to October 31 – February 28. If conditions in a given year vary and the timing of floral resource emergence is altered by unusual conditions (e.g., heavy rains, extended cold season), the prescribed burning window may be altered with coordination from a qualified bumble bee biologist. Variation from the October 31 - February 28 broadcast burning window will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

- Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year. The scale will be determined by a qualified biologist or RPF. The objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.

MM BIO-3a Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands: The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3:

- Reference the *Manual of California Vegetation*, Appendix 2, Table A2, *Fire Characteristics* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/) or other best available information to determine the natural fire regime of the specific sensitive natural community type (i.e., alliance) present. The condition class and fire return interval departure of the vegetation alliances present will also be determined.
- Design treatments in sensitive natural communities and oak woodlands to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function of the affected sensitive natural community. Treatments will be designed to replicate the fire regime attributes for the affected sensitive natural community or oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fireline intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/). Treatments will not be implemented in sensitive natural communities that are within their natural fire return interval (i.e., time since last burn is less than the average time required for that vegetation type to recover from fire) or within Condition Class 1.
- To the extent feasible, no fuel breaks will be created in sensitive natural communities with rarity ranks of S1 (critically imperiled) and S2 (imperiled).
- To the extent feasible, fuel breaks will not remove more than 20 percent of the native vegetation relative cover from a stand of sensitive natural community vegetation in sensitive natural communities with a rarity rank of S3 (vulnerable) or in oak woodlands. In forest and woodland sensitive natural communities with a rarity rank of S3, and in oak woodlands, only shaded fuel breaks will be installed, and they will not be installed in more than 20 percent of the stand of sensitive natural community or oak woodland vegetation (i.e., if the sensitive natural community covers 100 acres, no more than 20 acres will be converted to create the fuel break).
- Use prescribed burning as the primary treatment activity in sensitive natural communities that are fire dependent (e.g., closed-cone forest and woodland alliances, chaparral alliances characterized by fire-stimulated, obligate seeders), to the extent feasible and appropriate based on the fire regime attributes as described in Fire in California's Ecosystems (Van Wagtendonk et al. 2018) and the

Manual of California Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/).

- Time prescribed herbivory to occur when non-target vegetation is not susceptible to damage (e.g. non-target vegetation is dormant or has completed its reproductive cycle for the year). For example, use herbivores to control invasive plants growing in sensitive habitats or sensitive natural communities when sensitive vegetation is dormant but invasive plants are growing. Timing of herbivory to avoid non-target vegetation will be determined by a qualified botanist, RPF, or biologist based on the specific vegetation alliance being treated, the life forms and life conditions of its characteristic plant species, and the sensitivity of the non-target vegetation to the effects of herbivory.

The feasibility of implementing the avoidance measures will be determined by the project proponent based on whether implementation of this mitigation measure will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. If the avoidance measures are determined by the project proponent to be infeasible, the project proponent will document the reasons implementation of the avoidance strategies are infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

A qualified RPF or botanist with knowledge of the affected sensitive natural community will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat functions of the sensitive natural community or oak woodland. If the project proponent determines the impact on sensitive natural communities or oak woodlands would be less than significant, no further mitigation will be required. If the project proponent determines that the loss or degradation of sensitive natural communities or oak woodlands would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-3b will be implemented.

The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. For a treatment to be considered beneficial to a sensitive natural community or oak woodland, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the community (or similar community) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.

PROJECT-SPECIFIC IMPLEMENTATION

If County of Napa sensitive biotic communities or biotic communities of limited distribution are found during protocol-level surveys, Mitigation Measure BIO-3a would apply. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the sensitive biotic communities or biotic communities of limited distribution within the County of Napa and design treatments to avoid a substantial loss of these communities to the maximum extent feasible.

MM BIO-4 Avoid State and Federally Protected Wetlands: Impacts to wetlands will be avoided using the following measures:

- The qualified RPF or biologist will delineate the boundaries of federally protected wetlands according to methods established in the USACE wetlands delineation manual (Environmental

Laboratory 1987) and the appropriate regional supplement for the ecoregion in which the treatment is being implemented.

- The qualified RPF or biologist will delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (California Water Boards 2019 or current procedures).
- A qualified RPF or biologist will establish a buffer around wetlands and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The buffer will be a minimum width of 25 feet but may be larger if deemed necessary. The appropriate size and shape of the buffer zone will be determined in coordination with the qualified RPF or biologist and will depend on the type of wetland present (e.g., seasonal wetland, wet meadow, freshwater marsh, vernal pool), the timing of treatment (e.g., wet or dry time of year), whether any special-status species may occupy the wetland and the species' vulnerability to the treatment activities, environmental conditions and terrain, and the treatment activity being implemented.
- A qualified RPF or biological technician will periodically inspect the materials demarcating the buffer to confirm that they are intact and visible, and wetland impacts are being avoided.
- Within this buffer, herbicide application is prohibited.
- Within this buffer, soil disturbance is prohibited. Accordingly, the following activities are not allowed within the buffer zone: mechanical treatments, prescribed herbivory, equipment and vehicle access or staging.
- Only prescribed (broadcast) burning may be implemented in wetland habitats if it is determined by a qualified RPF or biologist that:
- No special-status species are present in the wetland habitat
- The wetland habitat function would be maintained.
- The prescribed burn is within the normal fire return interval for the wetland vegetation types present
- Fire containment lines and pile burning are prohibited within the buffer.
- No fire ignition (and associated use of accelerants) will occur within the wetland buffer.

MM BIO-5 Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites: The project proponent will implement the following measures while working in treatment areas that contain nursery sites identified in surveys conducted pursuant to SPR BIO-10:

- **Retain Known Nursery Sites**. A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment.
- **Establish Avoidance Buffers.** The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and after treatment activities will be required. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to special-status species.

EC-6: GEOLOGY, SOILS, AND MINERAL RESOURCE STANDARD PROJECT REQUIREMENTS

SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if the National Weather Service forecast is a “chance” (30 percent or more) of rain within the next 24 hours. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

To prevent herbicides from being mobilized and soil from being compacted which increases runoff and erosion risk, the project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if: (1) it is raining, (2) soils are saturated, and/or (3) soils are wet enough to mobilize herbicides or be compacted by mechanical or prescribed herbivory activities. The project proponent will be prepared to completely suspend mechanical and herbicide treatment activities prior to the initiation of the rain event. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer very wet or saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of very wet or saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, (5) inadequate traction without blading wet soil or surfacing materials, or (6) tire track imprints or hoof marks in the soil. This SPR applies only to mechanical and herbicide treatment activities and all treatment types, including treatment maintenance.

SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. If use of heavy equipment is required in saturated areas, other measures such as operating on organic debris, using low ground pressure vehicles, or operating on frozen soils/snow covered soils will be implemented to minimize soil compaction. Existing compacted road surfaces are exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments, and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If mechanical, prescribed herbivory, or prescribed burn treatment activities could result in substantial sediment discharge from soil disturbed by machinery, animal hooves, or being bare, organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical, prescribed herbivory, and prescribed burns that result in

exposure of bare soil over 50 percent of the project area treatment activities and all treatment types, including treatment maintenance.

SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. If erosion control measures are not properly implemented, they will be remediated prior to the first rainfall event per SPR GEO-3 and GEO-8. Additionally, the project proponent will inspect for evidence of erosion after the first large storm or rainfall event (i.e., ≥ 1.5 inches in 24 hours) as soon as is feasible after the event. Any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours per the methods stated in SPRs GEO-3 and GEO-8. This SPR applies only to mechanical, prescribed herbivory, and prescribed burning treatment activities and all treatment types, including treatment maintenance.

SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules (February 2019 version). Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface run-off to be concentrated on downslopes, other erosion controls will be installed as needed to maintain site productivity by minimizing soil loss. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.

SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. In addition, burn piles will not occupy more than 15 percent of the total treatment area (Busse et al. 2014). The project proponent will not locate burn piles in a Watercourse and Lake Protection Zone as defined in SPR HYD-4. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.

SPR GEO-7 Minimize Erosion: To minimize erosion, the project proponent will:

(1) Prohibit use of heavy equipment where any of the following conditions are present:

(i) Slopes steeper than 65 percent.

(ii) Slopes steeper than 50 percent where the erosion hazard rating is high or extreme.

(iii) Slopes steeper than 50 percent that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake.

(2) On slopes between 50 percent and 65 percent where the erosion hazard rating is moderate, and all slope percentages are for average slope steepness based on sample areas that are 20 acres, or less, heavy equipment will be limited to:

(i) Existing tractor roads that do not require reconstruction, or

(ii) New tractor roads flagged by the project proponent prior to the treatment activity.

(3) Prescribed herbivory treatments will not be used in areas with over 50 percent slope.

This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). If unstable areas or soils are identified within the treatment area, are unavoidable, and will be potentially directly or indirectly affected by the treatment, a licensed geologist (P.G. or C.E.G.) will determine the potential for landslide, erosion, of other issue related to unstable soils and identity

measures (e.g., those in SPR GEO-7) that will be implemented by the project proponent such that substantial erosion or loss of topsoil would not occur. This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types, including treatment maintenance.

EC-7: GREENHOUSE GAS EMISSIONS STANDARD PROJECT REQUIREMENTS

MM GHG-2 Implement GHG Emission Reduction Techniques During Prescribed Burns: When planning for and conducting a prescribed burn, project proponents implementing a prescribed burn will incorporate feasible methods for reducing GHG emissions, including the following, which are identified in the *National Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire* (NWCG 2018):

- reduce the total area burned by isolating and leaving large fuels (e.g., large logs, snags) unburned;
- reduce the total area burned through mosaic burning;
- burn when fuels have a higher fuel moisture content;
- reduce fuel loading by removing fuels before ignition. Methods to remove fuels include mechanical treatments, manual treatments, prescribed herbivory, and biomass utilization; and
- schedule burns before new fuels appear.

As the science evolves, other feasible methods or technologies to sequester carbon could be incorporated, such as conservation burning, a technique for burning woody material that reduces the production of smoke particulates and carbon released into the atmosphere and generates more biochar. Biochar is produced from the material left over after the burn and spread with compost to increase soil organic matter and soil carbon sequestration. Technologies to reduce greenhouse gas emissions may also include portable units that perform gasification to produce electricity or pyrolysis that produces biooil that can be used as liquid fuel and/or syngas that can be used to generate electricity.

The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.

EC-8: ENERGY

NONE

EC-9: HAZARDOUS MATERIAL AND PUBLIC HEALTH AND SAFETY STANDARD PROJECT REQUIREMENTS

SPR HAZ-1 Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. Prior to the start of treatment activities, the project proponent will inspect all equipment for leaks and inspect everyday thereafter until equipment is removed from the site. Any equipment found leaking will be promptly removed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR HAZ-2 Require Spark Arrestors: The project proponent will require mechanized hand tools to have federal- or state-approved spark arrestors. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.

SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.

SPR HAZ-4 Prohibit Smoking in Vegetated Areas: The project proponent will require that smoking is only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR HAZ-5 Spill Prevention and Response Plan: The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to provide protection to onsite workers, the public, and the environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. The SPRP will include (but not be limited to):

- a map that delineates staging areas, and storage, loading, and mixing areas for herbicides;
- a list of items required in an onsite spill kit that will be maintained throughout the life of the activity;
- procedures for the proper storage, use, and disposal of any herbicides, adjuvants, or other chemicals used in vegetation treatment.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

SPR HAZ-6 Comply with Herbicide Application Regulations: The project proponent will coordinate pesticide use with the applicable County Agricultural Commissioner(s), and all required licenses and permits will be obtained prior to herbicide application. The project proponent will prepare all herbicide applications to do the following:

- Be implemented consistent with recommendations prepared annually by a licensed PCA.
- Comply with all appropriate laws and regulations pertaining to the use of pesticides and safety standards for employees and the public, as governed by the EPA, DPR, and applicable local jurisdictions.
- Adhere to label directions for application rates and methods, storage, transportation, mixing, container disposal, and weather limitations to application such as wind speed, humidity, temperature, and precipitation.
- Be applied by an applicator appropriately licensed by the State.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

SPR HAZ-7 Triple Rinse Herbicide Containers: The project proponent will triple rinse all herbicide and adjuvant containers with clean water at an approved site, and dispose of rinsate by placing it in the batch tank for application per 3 CCR Section 6684. The project proponent will puncture used containers on the top and bottom to render them unusable, unless said containers are part of a manufacturer's container recycling program, in which case the manufacturer's instructions will be followed. Disposal of non-recyclable containers will be at legal dumpsites. Equipment will not be cleaned, and personnel will not be washed in a manner that would allow contaminated water to directly enter any body of water within the treatment area or adjacent watersheds. Disposal of all herbicides will follow label requirements and waste disposal regulations.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

SPR HAZ-8 Minimize Herbicide Drift to Public Areas: The project proponent will employ the following herbicide application parameters during herbicide application to minimize drift into public areas:

- application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative);
- spray nozzles will be configured to produce the largest appropriate droplet size to minimize drift;
- low nozzle pressures (30-70 pounds per square inch) will be utilized to minimize drift; and
- spray nozzles will be kept within 24 inches of vegetation during spraying.

This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

SPR HAZ-9 Notification of Herbicide Use in the Vicinity of Public Areas: For herbicide applications occurring within or adjacent to public recreation areas, residential areas, schools, or any other public areas within 500 feet, the project proponent will post signs at each end of herbicide treatment areas and any intersecting trails notifying the public of the use of herbicides. The signs will include the signal word (i.e., Danger, Warning or Caution), product name, and manufacturer; active ingredient; EPA registration number; target pest; treatment location; date and time of application; restricted entry interval, if applicable per the label requirements; date which notification sign may be removed; and a contact person with a telephone number. Signs will be posted prior to the start of treatment and notification will remain in place for at least 72 hours after treatment ceases. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

MM HAZ-3 Identify and Avoid Known Hazardous Waste Sites: Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials. If it is determined that hazardous materials sites could be located within the boundary of a treatment site, the project proponent will conduct a DTSC EnviroStor web search (https://www.envirostor.dtsc.ca.gov/public/) and consult DTSC's Cortese List to identify any known contamination sites within the project site. If a proposed mechanical treatment or prescribed burn is located on a site included on the DTSC Cortese List as containing potential soil contamination that has not been cleaned up and deemed closed by DTSC, the area will be marked and no prescribed burning or soil disturbing treatment activities will occur within 100 feet of the site boundaries. If it is determined through coordination with landowners or after review of the Cortese List that no potential or known contamination is located on a project site, the project may proceed as planned.

EC-10: HYDROLOGY AND WATER QUALITY STANDARD PROJECT REQUIREMENTS

SPR HYD-1 Comply with Water Quality Regulations: Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge

requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

PROJECT-SPECIFIC IMPLEMENTATION

Vegetation treatment activities may result in discharges to waters of the state; therefore, compliance with Water Code sections 13260(a)(1) and 13264 are required. The project proponent will use the State Water Board's Vegetation Treatment General Order, which provides a mechanism for Water Code compliance for projects that prepare a CalVTP PSA or PSA/Addendum. The project will be automatically enrolled (through implementation of SPR AD-7) in the State Water Board's Vegetation Treatment General Order. The project's automatic enrollment satisfies the requirements of SPR HYD-1.

SPR HYD-2 Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR HYD-3 Water Quality Protections for Prescribed Herbivory: The project proponent will include the following water quality protections for all prescribed herbivory treatments:

- Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas will be identified in the treatment prescription and excluded from prescribed herbivory project areas using temporary fencing or active herding. A buffer of approximately 50 feet will be maintained between sensitive and actively grazed areas.
- Water will be provided for grazing animals in the form of an on-site stock pond or a portable water source located outside of environmentally sensitive areas.
- Treatment prescriptions will be designed to protect soil stability. Grazing animals will be herded out of an area if accelerated soil erosion is observed.

This SPR applies to prescribed herbivory treatment activities and all treatment types, including treatment maintenance.

SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is based on 14 CCR Section 916.5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.

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

Water Class	Class I	Class II	Class III	Class IV
Water Class Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or	1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for nonfish aquatic species.	No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal	Man-made watercourses, usually downstream, established domestic, agricultural,

Water Class	Class I	Class II	Class III	Class IV
	2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.	3) Excludes Class III waters that are tributary to Class I waters.	high-water flow conditions after completion of timber operations.	hydroelectric supply or other beneficial use.
WLPZ Width (ft) – Distance from top of bank to the edge of the protection zone				
< 30 % Slope	75	50	Sufficient to prevent the degradation of downstream beneficial uses of water. Determined on a site-specific basis.	
30-50 % Slope	100	75		
>50 % Slope	150	100		

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

The following WLPZ protections will be applied for all treatments:

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

necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse.

- Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.
- Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water.

This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: The project proponent will implement the following measures when applying herbicides:

- Locate herbicide mixing sites in areas devoid of vegetation and where there is no potential of a spill reaching non-target vegetation or a waterway.
- Use only herbicides labeled for use in aquatic environments when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides will be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry.
- No terrestrial or aquatic herbicides will be applied within WLPZs of Class I and II watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ provided that the project proponent notifies the applicable regional water quality control board no fewer than 15 days prior to herbicide application. The feasibility of avoiding herbicide application within WLPZ of Class I and II watercourses will be determined by the project proponent and may be based on whether doing so will preclude achieving CalVTP program objectives, including, but not limited to, protection of vulnerable communities. The reasons for infeasibility will be documented in the PSA.
- No herbicides will be applied within a 50-foot buffer of ESA or CESA listed plant species or within 50 feet of dry vernal pools.
- For spray applications in and adjacent to habitats suitable for special-status species, use herbicides containing dye (registered for aquatic use by DPR, if warranted) to prevent overspray.
- Application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative).
- No herbicide will be applied during precipitation events or if precipitation is forecast 24 hours before or after project activities.

This SPR applies to herbicide treatment activities and all treatment types, including treatment maintenance.

SPR HYD-6 Protect Existing Drainage Systems: If a treatment activity is adjacent to a roadway with stormwater drainage infrastructure, the existing stormwater drainage infrastructure will be marked prior to ground disturbing activities. If a drainage structure or infiltration system is inadvertently disturbed or modified during project activities, the project proponent will coordinate with owner of the system or feature to repair any damage and ensure that restore pre-project drainage conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

EC-11: LAND USE AND PLANNING, POPULATION AND HOUSING

NONE

EC-12: NOISE STANDARD PROJECT REQUIREMENTS

SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: The project proponent will require that operation of heavy equipment associated with treatment activities (heavy off-road equipment, tools, and delivery of equipment and materials) will occur during daytime hours if such noise would be audible to receptors (e.g., residential land uses, schools, hospitals, places of worship). Cities and counties in the treatable landscape typically restrict construction-noise (which would apply to vegetation treatment noise) to particular daytime hours. If the project proponent is subject to local noise ordinance, it will adhere to those to the extent the project is subject to them. If the applicable jurisdiction does not have a noise ordinance or policy restricting the time-of-day when noise-generating activity can occur noise-generating vegetation treatment activity will be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday and federal holidays. If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR NOI-2 Equipment Maintenance: The project proponent will require that all powered treatment equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all activities and all treatment types, including treatment maintenance.

SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses: The project proponent will locate treatment activities, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

EC-13: RECREATION STANDARD PROJECT REQUIREMENTS

SPR REC-1 Notify Recreational Users of Temporary Closures. If a treatment activity would require temporary closure of a public recreation area or facility, the project proponent will coordinate with the owner/manager of that recreation area or facility. If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

EC-14: TRANSPORTATION STANDARD PROJECT REQUIREMENTS

SPR TRAN-1 Implement Traffic Control during Treatments: Prior to initiating vegetation treatment activities the project proponent will work with the agency(ies) with jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the project would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual vegetation treatments. If needed, a TMP will be prepared to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the CalVTP. Measures included in the TMP could include (but are not be limited to) construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities, flaggers for lane closures to provide temporary traffic control along affected roadway facilities, treatment schedule restrictions to avoid seasons or time periods of peak vehicle traffic, haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of vegetation treatment projects. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.

EC-15: PUBLIC SERVICES AND UTILITIES STANDARD PROJECT REQUIREMENTS

SPR UTIL-1: Solid Organic Waste Disposition Plan. For projects requiring the disposal of material outside of the treatment area, the project proponent will prepare an Organic Waste Disposition Plan prior to initiating treatment activities. The Solid Organic Waste Disposition Plan will include the amount (e.g., tons) of solid organic waste to be managed onsite (i.e., scattering of wood materials, generating unburned piles, and pile burning) and transported offsite for processing (i.e., biomass power plant, wood product processing facility, composting). If the project proponent intends to transport solid organic

waste offsite, the Solid Organic Waste Disposition Plan will clearly identify the location and capacity of the intended processing facility, consistent with local and state regulations to demonstrate that adequate capacity exists to accept the treated materials. This SPR applies only to mechanical and manual treatment activities and all treatment types, including treatment maintenance.

EC-16: WILDFIRE

NONE

EC-17: ADMINISTRATIVE STANDARD PROJECT REQUIREMENTS

SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE will meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE will also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR AD-2 Delineate Protected Resources: The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly-visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. “Protected Resources” refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester or biologist). This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent will design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent will: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.

SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent will post signs in a conspicuous location near the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.

SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism.

Information on proposed projects (PSA in progress):

- GIS data that include project location (as a point), or project latitude/longitude;
- project size (typically acres);
- treatment types and activities; and
- contact information for a representative of the project proponent.

The project proponent will provide information on the proposed project to the Board or CAL FIRE as early as feasible in the planning phase. The project proponent will provide this information to the Board or CAL FIRE with sufficient lead time to allow those agencies to make the information available to the public at least two weeks prior to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website).

Information on approved projects (PSA complete):

- A completed PSA Environmental Checklist;
- A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist);
- GIS data that include a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction)
- Information on completed projects (following initial treatment):
- GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction)

A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes

- Size of treated area (typically acres);
- Treatment types and activities;
- Dates of work;
- A list of the SPRs and mitigation measures that were implemented
- Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b).

This SPR applies to all treatment activities and all treatment types, including treatment maintenance.

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Attachment B

Biological Resources

1 VEGETATION AND HABITAT

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 treatment areas. See Attachment A, "Mitigation Monitoring and Reporting Program," for information on the qualifications of personnel that can implement SPRs and mitigation measures. Habitat and vegetation types in the treatment areas were identified using the Napa County vegetation data, which was created in 2004 and updated in 2016 (Thorne et al. 2004; Thorne et al. 2019), to identify the habitat types present in the project area. The total acreage of each habitat type is presented by treatment type in Table B-1. The Napa County vegetation data was also reviewed to identify areas of potentially sensitive or unusual habitat. The Napa County data was consistent with other vegetation data sets available in the region, including California Department of Forestry and Fire Protection (CAL FIRE)'s Fire and Resource Assessment Program (FRAP) vegetation data layer (FVEG), and Conservation Lands Network (CLN) version 2.0 vegetation mapping data. The vegetation types were verified or corrected in the field during reconnaissance surveys.

Table B-1 Mapped Habitat Types in the Project Area

Habitat Type	Ecological Restoration Acreage	Fuel Break Acreage	WUI Acreage	Total Acreage
Agriculture				
Agriculture	147.5	44.0	44.0	235.5
Agricultural Total	**147.5**	**44.0**	**44.0**	**235.5**
Coniferous Forest				
Coast Redwood Alliance	70.9	–	–	70.9
Coast Redwood–Douglas Fir/California Bay Association	34.5	0.2	–	34.7
Douglas Fir Alliance	91.3	61.0	–	152.4
Douglas Fir–Ponderosa Pine Provisional Association	1,078.2	209.6	263.4	1,551.1
Foothill Pine Alliance	28.8	8.3	1.6	38.6
Knobcone Pine Alliance	20.1	54.6	–	74.7
Ponderosa Pine–Douglas Fir Alliance	28.6	14.4	7.0	50.0
Coniferous Forest Total	**1,352.4**	**348.0**	**271.9**	**1,972.3**
Developed[1]				
Urban or Built-up	82.5	97.2	116.3	296.0
Developed Total	**82.5**	**97.2**	**116.3**	**296.0**
Grassland				
California Annual Grasslands Group	41.7	42.9	–	84.6
Serpentine Grasslands Group	0.5	2.3	–	2.9
Upland Annual Grasslands & Forbs Formation Group	15.8	5.5	11.9	33.3
Grassland Total	**57.2**	**50.7**	**11.9**	**120.8**
Oak Woodlands				
Black Oak Alliance	145.9	52.2	37.5	235.6
Blue Oak Alliance	0.4	8.8	–	9.2
California Bay–Madrone–Coast Live Oak–(Black Oak Big Leaf Maple) Macrogroup	187.2	42.1	41.6	270.9

Habitat Type	Ecological Restoration Acreage	Fuel Break Acreage	WUI Acreage	Total Acreage
Canyon Live Oak Alliance	5.9	12.9	41.7	60.6
Coast Live Oak Alliance	12.4	20.2	4.5	37.1
Coast Live Oak–Blue Oak–(Foothill Pine) Provisional Association	59.5	21.3	0.1	80.9
Madrone Forest Alliance	30.0	–	–	30.0
Mixed Oak Group	699.6	190.6	94.5	984.6
Tanbark Oak Alliance	118.9	–	–	118.9
Valley Oak Alliance	2.2	–	–	2.2
Oak Woodlands Total	**1,262.0**	**348.0**	**220.1**	**1,830.1**
Other				
Unknown	–	3.7	–	3.7
Rock Outcrop	–	5.1	–	5.1
Other Total	–	**8.7**	–	**8.7**
Riparian Woodland				
Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup	–	4.5	–	4.5
White Alder (Mixed Willow– California Bay–Big Leaf Maple) Riparian Forest Alliance	19.6	5.0	–	24.6
Riparian Woodland Total	**19.6**	**9.5**	–	**29.1**
Shrubland				
California Bay–Leather Oak–(Rhamnus spp. (Foothill Pine)) Mesic Serpentine Provisional Alliance	22.0	20.3	–	42.3
Chamise Alliance	157.2	58.4	69.5	285.2
Foothill Pine/Mesic Non-serpentine Chaparral	–	0.2	–	0.2
Leather Oak–California Bay–Rhamnus spp. Mesic Serpentine Chaparral Group	–	0.5	–	0.5
Leather Oak–White Leaf Manzanita–Chamise Xeric Serpentine Group	–	2.7	–	2.7
Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County Group	124.3	64.8	92.3	281.5
Sclerophyllous Shrubland Macrogroup	–	1.6	–	1.6
White Leaf Manzanita–Leather Oak–(Chamise–Ceanothus spp. (Foothill Pine)) Xeric Serpentine Group	1.0	7.0	–	8.0
Shrubland Total	**304.6**	**155.4**	**161.8**	**621.8**
Streams and Reservoirs				
Water	70.1	2.2	–	72.3
Streams and Reservoirs Total	**70.1**	**2.2**	–	**72.3**
Wetlands				
(Bulrush–Cattail) Fresh Water Marsh Group	4.3	–	–	4.3
Wetlands Total	**4.3**	–	–	**4.3**
All Habitat Types Total	**3,301.1**	**1,063.8**	**826.0**	**5,190.9**

[1] Most developed 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).

Source: Thorne et. al 2019; compiled by Ascent Environmental in 2022.

The treatment areas range in elevation from approximately 202 to 2,894 feet above sea level. The project is in the Northern California Coast and Northern California Coast Ranges ecoregions. Vegetation types identified within the project include agricultural land, coniferous forest, developed land, grassland, oak woodland, riparian woodland, shrubland, streams and reservoirs, and wetlands (Table B-1). Stream and freshwater pond habitats, including some Class 1 streams, are present and are described below (see Impact BIO-4). The Okin Preserve Roadside/Evacuation Route treatment area contains serpentine soils, which typically support endemic plant species. Serpentine soils are also mapped along the northern and eastern boundary of the Aetna Springs Preserve Forest Health and Aetna Springs Preserve Roadside treatment areas as well as through part of the Wildlake Preserve Roadside Expanded treatment area (NRCS 2019). Serpentine vegetation communities are mostly mapped in serpentine soil units, except for a few isolated occurrences outside of mapped serpentine soil units. Leather oak–California bay–Rhamnus spp. mesic serpentine chaparral group is in the Old Howell Mountain Road Fuel Break treatment area (Thorne et al. 2019). Serpentine grasslands group is in the Pacific Union College Forest Health treatment area (Thorne et al. 2019). Lastly, white leaf manzanita–leather oak–(chamise–Ceanothus spp. (foothill Pine)) xeric serpentine group is in the Hospital Water Supply Roadside Expanded treatment area (Thorne et al. 2019).

A list of special-status plant and wildlife species with potential to occur in the treatment areas was compiled by completing a review of the following items:

- Wildlake Ranch Botanical Resource Assessment Final Report (Ruygt 2006),
- Linda Falls Preserve Botanical Resource Assessment (Ruygt 2007),
- Okin Donation Botanical Resource Assessment (Ruygt 2016),
- Pacific Union College Forest 2015 Botanical Assessment (Ruygt 2015),
- Scott Ranch Botanical Resource Assessment Aetna Springs Road (Ruygt 2019),
- Vegetation Survey: Pacific Union College, Angwin, CA (Wyrick-Brownworth 2020),
- Vegetation Survey: Pacific Union College, Angwin-Deer Park Wildfire Resilience Project (Wyrick-Brownworth 2023),
- Botanical Resource Survey Report Rancho La Jota Wildfire Risk Reduction Project (Nomad Ecology 2022);
- California Natural Diversity Database (CNDDB)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the 22 US Geological Survey (USGS) quadrangles containing and surrounding the treatment areas (CNDDB 2022; CNPS 2022);
- the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2022a);
- Consortium of California Herbaria data (CCH2 2022);
- and Appendix BIO-3 (Table 9a, Table 9b, Table 10a, Table 10b, and Table 19) in the CalVTP Program EIR (Volume II) for special-status plants and wildlife that could occur in the Northern California Coast and Northern California Coast Ranges ecoregions.

Only the northern 800-feet of the Deer Park & Howell Mountain Roadside Expanded treatment area is in the Northern California Coast Ranges ecoregion. While most of the project is in the Northern California Coast ecoregion, it is directly west of the ecoregion boundary, so conditions and resource characteristic of both ecoregions were assessed. A list of sensitive natural communities with potential to occur in the treatment areas was compiled by reviewing Napa County vegetation data and previously prepared botanical reports, assessing community composition during the reconnaissance surveys, completing a CNDDB search of the 15 USGS quadrangles surrounding the treatment areas (CNDDB 2022), and reviewing Table 3.6-16 (pages 3.6-63 through 3.6-68) and Table 3.6-18 (pages 3.6-70 through 3.6-71) in the CalVTP Program EIR (Volume II) for sensitive natural communities that could

occur in the Northern California Coast ecoregion and Northern California Coast Ranges ecoregion in the habitat types mapped in the treatment areas.

Ascent biologists conducted reconnaissance surveys October 17, 18, and 19, 2022, to identify and document sensitive resources (e.g., aquatic habitat, riparian habitat, sensitive natural communities) and to assess the suitability of habitat in the treatment areas for special-status plant and wildlife species. Vegetation and soil characteristics were evaluated, and incidental wildlife observations were recorded. Additionally, fire effects from the 2020 Glass and Hennessey fires were observed. Observed burn severity ranged from unburned/low to very high. Fire effects in some portions of the project area resulted in mapped habitat types differing from observed conditions. The most severe wildfire effects appeared to occur in a variety of shrubland and oak woodland habitat types; post-fire many of these areas reflected an increased dominance of California bay resprouts, standing snags, and other resprouting vegetation. Herbaceous and chaparral species are most likely beginning to regenerate in burned areas, but it will take time to reestablish tree canopy cover in the areas mapped as oak woodlands, coniferous forest, and shrublands.

1.1 AQUATIC RESOURCES

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, multiple types of aquatic habitat were observed, including perennial riverine, intermittent riverine, lake, freshwater pond, freshwater forested-shrub wetland, freshwater emergent wetland, and springs. Perennial riverine habitat observed included Bell Creek at the Wildlake Preserve, which crosses Wildlake Preserve Forest Health and Wildlake Preserve Roadside Expanded treatment areas. Species present included smaller duckweed (*Lemna minor*), sedge (*Carex* spp.), white alder (*Alnus rhombifolia*), and blackberry (*Rubus* spp.). A dirt road crosses Bell Creek in the Wildlake Preserve Roadside Expanded treatment area. Additional perennial riverine habitat observed includes Conn Creek in the Glendale Ranch/Linda Falls Preserve Forest Health treatment area at Linda Falls Preserve. Species present included Oregon ash (*Fraxinus latifolia*), gooseberry (*Ribes* spp.), sedge, and stinging nettle (*Urtica dioica*). Intermittent riverine habitat includes Moore Creek in the Pacific Union College Forest Health treatment area, which was dry when observed during the reconnaissance level survey in October 2022. Species observed along or in the dry creek bed included spreading rush (*Juncus patens*), silverback fern (*Pentagramma* spp.), and snowberry (*Symphoricarpos* spp.) Freshwater forested/shrub wetland is mapped at this location (USFWS 2022b). Freshwater emergent wetlands were observed along the edges of the lakes and ponds in the Friesen Lakes Watershed Forest Health treatment area as well as in the Friesen Drive (to Lookout Point) Roadside Expanded treatment area. Species present included cattail (*Typha* spp.), which lined a good portion of the lakes and ponds observed, rush (*Juncus* spp.), common spikerush (*Eleocharis palustris*), and multiple sedge species (*Cyperus* spp.). Freshwater emergent wetlands were also observed along the edge of Wild Lake in the Wildlake Preserve Forest Health treatment area and in the Wildlake Preserve Roadside Expanded treatment area. The habitat adjacent to Wild Lake was identified as vernal marsh habitat by J. Ruygt (Ruygt 2006). Species observed along Wild Lake included willow (*Salix* spp.), rush species, and common spikerush. Additionally, a flowing spring was observed in the Pacific Union College Forest treatment area during the reconnaissance survey. Species observed include giant chain fern (*Woodwardia fimbriata*), redwood, and tanbark oak.

During botanical surveys at Aetna Springs Preserve, J. Ruygt identified perennial wetlands (Carex spp.–Juncus spp. –Wet Meadow Grass) Not Formally Defined (NFD) Super Alliance which are partially within the Aetna Springs Preserve Forest Health treatment area (Ruygt 2019). These perennial wetlands are supported by at least three springs on the preserve that eventually feed into seasonal drainages (Ruygt 2019). Additionally, there are at least two other spring fed wetlands north of Aetna Springs Road that are within the Aetna Springs Preserve Forest Health treatment area and potentially the Aetna Springs Preserve Roadside treatment area. A seasonal wetland was also observed on the property (Ruygt 2019). On Wildlake Preserve there is a constructed lake (Wild Lake) that has a slowly subsiding water level that creates ‘vernal marsh-like conditions’ (Ruygt 2006). Ditches on the Wildlake Preserve, which J. Ruygt refers to as the “Friesen ditches” create intermittent pools that in turn provide habitat for vernal pool

species (Ruygt 2006). Additionally, natural ponding on Walnut Flat creates habitat for wetland species (Ruygt 2006). J. Ruygt reported freshwater marsh mapped on the Wildlake Preserve (Ruygt 2006). In the botanical report for Okin Preserve it is noted that no springs or wetlands had previously been mapped on this property and were not observed during botanical surveys (Ruygt 2016). In the botanical report for the Pacific Union College property J. Ruygt (2016) notes multiple springs throughout the property, one of which is Martin Spring that was observed during the reconnaissance survey. Martin Spring supports a perennial channel (Ruygt 2015). Some of the springs on the property support a few perennial wetlands dominated by giant chain fern and redwoods (Ruygt 2015). Additionally, there are a few swales on the property that experience seasonal ponding (Ruygt 2015).

Napa County vegetation mapping shows approximately 4.3 acres of freshwater emergent wetland (bulrush - cattail) freshwater marsh group mapped in the Friesen Lakes Watershed Forest Health treatment area. Additionally, it has water mapped within the Deer Park & Howell Mountain Roadside Expanded, Friesen Dr (to Lookout Point) Roadside Expanded, Friesen Lakes Watershed Forest Health, Hospital Defensible Space and Evacuation, Summit Lake Drive Roadside Expanded, Summit Lake to Ink Grade Forest Health, Wildlake Preserve Forest Health, and Wildlake Preserve Roadside Expanded treatment areas. In the Napa County vegetation mapping report, water is defined with the CWHR habitat types of water, riverine, and lacustrine (Thorne et al. 2019).

National Wetlands Inventory (NWI) classifies the project area as having approximately 22.3 acres of riverine (e.g., Bell Creek, Conn Creek), 32.4 acres lake, 35.1 acres freshwater pond, and 4.7 acres freshwater forested/shrub wetland (USFWS 2022b). There is approximately 6.2 acres of riverine, 1.12 acres lake, 1.5 acres freshwater pond, and 0.7 acres freshwater forested/shrub wetland mapped in the fuel break treatment type (USFWS 2022b). However, the NWI indicated the potential presence of waters and wetlands and is not based on site-specific surveys; therefore, this acreage is not reliable for determining the extent of state or federally protected wetlands present.

Napa County has sensitive biotic communities and biotic communities of limited distribution for some aquatic resources. Riverine, lacustrine, wet meadow grasses NFD super alliance, northern vernal pools, and coastal and valley freshwater marsh are all known to occur in the project area (Ruygt 2006; Ruygt 2019; Thorne et al. 2019; USFWS 2022b). If any Napa County sensitive biotic communities or biotic communities of limited distribution are found during protocol-level surveys, they would be avoided during project implementation.

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

Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps. Unmapped aquatic resources were observed during the SPR BIO-1 reconnaissance survey including the flowing spring observed in the Pacific Union College Forest Health treatment area.

Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of wetland features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, seeps, and other wetlands; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-status wildlife (e.g., dwarf downingia, foothill yellow-legged frog, California giant salamander, and western pond turtle; see Impact BIO-1 and Impact BIO-2). Additionally, project-specific measures regarding burn pile setbacks from water resources will be implemented throughout the project area based on recommendations received from the City of Napa for treatment areas in the Linda Falls Preserve.

2 SPECIAL-STATUS SPECIES

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of surveys conducted, and habitat present within the treatment areas as assessed during reconnaissance surveys, a complete list of all species with potential to occur in the vicinity of the proposed project was assembled. A total of 85 special-status plants and 39 special-status wildlife species were assessed. Of these, a total of 55 special-status plants and 24 of the special-status wildlife from the complete list of species were determined to have potential to occur in the treatment areas (Tables B-1 and B-2). These species are discussed in detail under Impact BIO-1 (special-status plants) and Impact BIO-2 (special-status wildlife).

Table B-2 Special-Status Plant Species Known to Occur in the Vicinity of the Treatment Areas and Their Potential for Occurrence in the Treatment Areas

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Franciscan onion *Allium peninsulare* var. *franciscanum*	—	—	1B.2	Cismontane woodland, valley and foothill grassland. Dry hillsides. 10–1,150 feet in elevation. Blooms May–June. Geophyte.	*May occur*. Woodland and grassland habitat potentially suitable for this species is present in the project area.
Sonoma alopecurus *Alopecurus aequalis* var. *sonomensis*	FE	—	1B.1	Freshwater marshes and swamps, riparian scrub. Wet areas, marshes, and riparian banks, with other wetland species. 10–1,190 feet in elevation. Blooms May–July. Perennial.	*Not expected to occur*. Project area is out of known geographical range of this species.
Napa false indigo *Amorpha californica* var. *napensis*	—	—	1B.2	Broadleafed upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 90–2,420 feet in elevation. Blooms April–July. Perennial.	***Known to occur***. This species was recorded during J. Ruygt botanical surveys at Linda Falls Preserve, Okin Preserve, and Pacific Union College, Nomad Ecology's protocol level botanical surveys at Linda Falls Preserve, and A. Wyrick-Brownworth botanical surveys at Pacific Union College (Ruygt 2007; Ruygt 2015; Ruygt 2016; Wyrick-Brownworth 2020; Nomad Ecology 2022). Additionally, this species was observed during the reconnaissance survey at Pacific Union College on October 20, 2022. Forest, woodland, and chaparral habitat potentially suitable to this species is located in other locations of the project area.
Bent-flowered fiddleneck *Amsinckia lunaris*	—	—	1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10–2,610 feet in elevation. Blooms March–June. Annual.	*May occur*. Woodland and grassland habitat potentially suitable for this species is present in the project area.
Konocti manzanita *Arctostaphylos manzanita* ssp. *elegans*	—	—	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Volcanic soils. 730–6,010 feet in elevation. Blooms January–May. Perennial.	*May occur*. Chaparral, woodland, and coniferous forest habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Rincon Ridge manzanita *Arctostaphylos stanfordiana* ssp. *decumbens*	—	—	1B.1	Chaparral (rhyolitic), cismontane woodland. 290–1,230 feet in elevation. Blooms February–April. Perennial.	*May occur*. Chaparral and woodland habitat, including chaparral with and without rhyolitic substrates, potentially suitable for this species is present in the project area. *Arctostaphylos stanfordiana* ssp. *decumbens* has a documented occurrence by J. Ruygt south of Okin Preserve Roadside/Evacuation Route treatment area and southeast of Pacific Union College Forest Health treatment area (CCH2 2022).
Raiche's manzanita *Arctostaphylos stanfordiana* ssp. *raichei*	—	—	1B.1	Chaparral, lower montane coniferous forest. Rocky, serpentine sites. Slopes and ridges. 1,590–3,510 feet in elevation. Blooms February–April. Perennial.	*Not expected to occur*. Project area is out of known geographical range of this species. *Arctostaphylos stanfordiana* ssp. *raichei* is known to occur in Lake and Mendocino counties with one additional recent occurrence reported in Sonoma County (Calflora 2022; NatureServe 2022)
Clara Hunt's milk-vetch *Astragalus claranus*	FE	ST	1B.1	Cismontane woodland, valley and foothill grassland, chaparral (openings). Open grassy hillsides, especially on exposed shoulders in thin, volcanic clay soil moist in spring. Sometimes on serpentine. 240–910 feet in elevation. Blooms March–May. Annual.	*Not expected to occur*. Project area does not contain clay soil habitat potentially suitable for this species.
Jepson's milk-vetch *Astragalus rattanii* var. *jepsonianus*	—	—	1B.2	Cismontane woodland, valley and foothill grassland, chaparral. Commonly on serpentine in grassland or openings in chaparral. 570–3,300 feet in elevation. Blooms March–June. Annual.	*May occur*. Woodland, chaparral, and grassland habitat with non-serpentine and serpentine-derived soils potentially suitable for this species are present in the project area. This species has a documented historical occurrence in the project vicinity of the northern section of the Deer Park & Howell Mountain Roadside Expanded treatment area in non-serpentine woodland habitat (CCH2 2022).
Big-scale balsamroot *Balsamorhiza macrolepis*	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 110–4,810 feet in elevation. Blooms March–June. Perennial.	*May occur*. Chaparral, grassland, and woodland habitat with serpentine and non-serpentine substrates potentially suitable for this species are present in other parts of the project area.
Sonoma sunshine *Blennosperma bakeri*	FE	SE	1B.1	Vernal pools, valley and foothill grassland. Vernal pools and swales. 30–370 feet in elevation. Blooms March–May. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Blennosperma bakeri* is thought to be endemic to Sonoma County (NatureServe 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Narrow-anthered brodiaea *leptandra*	—	—	1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Volcanic substrates. 90–1,940 feet in elevation. Blooms May–July. Geophyte.	***Known to occur***. This species was recorded during J. Ruygt botanical surveys at Linda Falls Preserve and Okin Preserve and Nomad Ecology's protocol level botanical surveys at Linda Falls Preserve (Ruygt 2007; Ruygt 2016; Nomad Ecology 2022). This species also has a documented occurrence in the Deer Park & Howell Mountain Roadside Expanded treatment area (Calflora 2022). Broadleafed upland forest, chaparral, cismontane woodland, conifer forest, and valley and foothill grassland habitat potentially suitable for this species is present in other parts of the project area.
Small-flowered calycadenia *Calycadenia micrantha*	–	–	1B.2	Chaparral, meadows and seeps (volcanic), valley and foothill grassland, and woodland. Dry, open rocky ridges, hillsides, talus; openings in scrub, woodland. 10–4,920 feet in elevation. Blooms June–September. Annual.	*May occur*. Chaparral, grasslands, and woodland habitat potentially suitable for this species is present in parts of the project area.
Northern meadow sedge *Carex praticola*	—	—	2B.2	Meadows and seeps. Moist to wet meadows, riparian edges, open forest. 40–10,500 feet in elevation. Blooms May–July. Perennial.	*May occur*. Wetland and riparian habitat potentially suitable for this species is present in the project area.
Mead's owls-clover *Castilleja ambigua* var. *meadii*	—	—	1B.1	Vernal pools, meadows and seeps. Soils of volcanic origin and tend to have high clay content and be gravelly. 1,470–1,560 feet in elevation. Blooms April–May. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Castilleja ambigua* var. *meadii* is known only from occurrences on Atlas Peak southeast of the project area (CNPS 2022).
Pink creamsacs *Castilleja rubicundula* ssp. *rubicundula*	—	—	1B.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. Strict serpentine endemic. 60–3,010 feet in elevation. Blooms April–June. Annual.	*May occur*. Chaparral, woodland, grassland habitat with serpentine substrates potentially suitable for this species is present in the project area.
Rincon Ridge ceanothus *confusus*	—	—	1B.1	Chaparral, pine/oak woodland. Known from volcanic or serpentine soils. 240–3,500 feet in elevation. Blooms February–June. Perennial.	*May occur*. Chaparral and woodland with volcanic and/or serpentine soil habitat potentially suitable for this species is present in the project area. This species has a documented occurrence at Pacific Union College south of the Angwin PUC WUI treatment area (CCH2 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Calistoga ceanothus *divergens*	—	—	1B.2	Volcanic slopes, chaparral, pine/oak woodland. Sometimes on serpentine. 550–3,120 feet in elevation. Blooms February–April. Perennial.	***Known to occur***. This species has documented historical occurrence in Old Howell Mountain Road Fuel Break treatment area (CCH2 2022). Additionally, there is a documented historical occurrence in the vicinity of the Deer Park & Howell Mountain Roadside Expanded treatment area (CCH2 2022). Chaparral and woodland habitat with serpentine or volcanic derived soils potentially suitable for this species are present in other parts of the project area.
Holly-leaved ceanothus *purpureus*	—	—	1B.2	Chaparral, cismontane woodland. Rocky, volcanic slopes. 470–2,560 feet in elevation. Blooms February–June. Perennial.	***Known to occur***. This species has documented occurrences in the Deer Park & Howell Mountain Roadside Expanded treatment area, one directly north of the Howell Mountain to Linda Falls Trailhead WUI (CCH2 2022), the other west of Howell Mountain to Linda Falls Trailhead WUI treatment area (CNDDB 2022). Additionally, this species has a documented historical occurrence in the Hospital Defensible Space and Evacuation treatment area (CCH2 2022). Chaparral and woodland habitat potentially suitable for this species is present in other parts of the project area.
Sonoma ceanothus *sonomensis*	—	—	1B.2	Serpentine or volcanic substrates, chaparral. 450–2,610 feet in elevation. Blooms February–April. Perennial.	*May occur*. Chaparral habitat with volcanic or serpentine soils potentially suitable for this species are present in project area.
Pappose tarplant *Centromadia parryi* ssp. *parryi*	—	—	1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. Grassland, seeps. 5–1,380 feet in elevation. Blooms May–November. Annual.	*May occur*. Wetland habitat with and without alkaline soils potentially suitable for this species are present in other parts of the project area.
Dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	—	—	1B.2	Chaparral. Serpentine. 1,000–3,290 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Chaparral habitat with serpentine substrate potentially suitable for this species is present in the project area.
Pennell's bird's-beak *Cordylanthus tenuis* ssp. *capillaris*	FE	SR	1B.2	Closed-cone coniferous forest, chaparral. In open or disturbed areas on serpentine within forest or chaparral. 290–710 feet in elevation. Blooms June–September. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Serpentine cryptantha *Cryptanthia dissita*	—	—	1B.2	Chaparral. Serpentine outcrops. 440–2,420 feet in elevation. Blooms April–June. Annual.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area. *Cryptantha dissita* has a documented occurrence northwest of Aetna Springs Preserve Forest Health treatment area (CCH2 2022).
Dwarf downingia *Downingia pusilla*	—	—	2B.2	Vernal pools, roadside ditches. 3–1,610 feet in elevation. Blooms March–May. Annual.	*May occur*. Vernal pool and roadside ditch habitat potentially suitable for this species is present in other parts of the project area.
Cascade downingia *Downingia willamettensis*	—	—	2B.2	Cismonte woodland, valley and foothill grassland. Edges of lakes, ponds, vernal pools. 50–3,640 feet in elevation. Blooms June–July. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species.
Greene's narrow-leaved daisy *Erigeron greenei*	—	—	1B.2	Generally, on serpentine, sometimes rocky alluvium, chaparral, woodland, conifer forest. 290–2,740 feet in elevation. Blooms May–September. Perennial.	***Known to occur***. This species was recorded during J. Ruygt botanical surveys at Aetna Springs Preserve (Ruygt 2019). Chaparral, woodland, conifer forest habitat potentially suitable for this species is present in other parts of the project area.
Snow Mountain buckwheat *Eriogonum nervulosum*	—	—	1B.2	Chaparral. Dry serpentine outcrops, balds, and barrens. 1,460–6,910 feet in elevation. Blooms June–September. Geophyte.	*Not expected to occur*. Project area is not within geographical range of this species.
Loch Lomond button-celery *Eryngium constancei*	FE	SE	1B.1	Vernal pools. 1,50–2,810 feet in elevation. Blooms April–June. Annual/Perennial.	*May occur*. Vernal pool habitat potentially suitable for this species is present at Wildlake Preserve around Wild Lake (Ruygt 2006).
Jepson's coyote-thistle *Eryngium jepsonii*	—	—	1B.2	Vernal pools, valley and foothill grassland. Clay. 10–990 feet in elevation. Blooms April–August. Perennial.	*Not expected to occur*. Project area does not contain clay soil habitat potentially suitable for this species.
Fragrant fritillary *Fritillaria liliacea*	—	—	1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 10–1,320 feet in elevation. Blooms February–April. Geophyte.	*Not expected to occur*. Project area is out of known geographical range of this species.
Adobe-lily *Fritillaria pluriflora*	—	—	1B.2	Chaparral, cismontane woodland, foothill grassland. Usually on clay soils; sometimes serpentine. 140–3,100 feet in elevation. Blooms February–April. Geophyte.	*May occur*. Chaparral, woodland, and grassland habitat potentially suitable for this species is present in the project area. *Fritillaria pluriflora* has a documented historical occurrence northeast of the project area (CNDDB 2022). Project area does not contain adobe clay soil; however, the species is occasionally found on other soil types and is not restricted to clay.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Boggs Lake hedge-hyssop *Gratiola heterosepala*	—	SE	1B.2	Marshes and swamps (freshwater), vernal pools. Shallow water, margins of vernal pools, sometimes on lake margins. 30–7,800 feet in elevation. Blooms April–August. Annual.	*May occur*. Wetland and lake habitat potentially suitable for this species is present in the project area.
Toren's grimmia *Grimmia torenii*	—	—	1B.3	Cismontane woodland, lower montane coniferous forest, chaparral. Openings, rocky, boulder and rock walls, carbonate, volcanic. 1,060–3,810 feet in elevation. Perennial.	*May occur*. Rock substrates within woodland, conifer forest, and chaparral habitat potentially suitable for this species are present in the project area.
Hall's harmonia *Harmonia hallii*	—	—	1B.2	Chaparral. Serpentine hills and ridges. Open, rocky areas within chaparral. 1,100–3,060 feet in elevation. Blooms April–June. Annual.	*May occur*. Chaparral habitat with serpentine substrate potentially suitable for this species is present in the project area.
Congested-headed hayfield tarplant *Hemizonia congesta* ssp. *congesta*	—	—	1B.2	Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. 60–2,140 feet in elevation. Blooms April–November. Annual.	*May occur*. Grassland habitat potentially suitable for this species is present in the project area.
Glandular western flax *Hesperolinon adenophyllum*	—	—	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine soils; generally found in serpentine chaparral. 490–4,320 feet in elevation. Blooms May–August. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Hesperolinon adenophyllum* is known only from Mendocino and Lake Counties (NatureServe 2022).
Two-carpellate western flax *Hesperolinon bicarpellatum*	—	—	1B.2	Serpentine chaparral. Serpentine barrens at edge of chaparral. 190–3,300 feet in elevation. Blooms May–July. Annual.	***Known to occur***. This species was recorded during J. Ruygt botanical surveys at Okin Preserve (Ruygt 2016). Serpentine chaparral habitat potentially suitable for this species is present in other parts of the project area.
Lake County western flax *Hesperolinon didymocarpum*	—	SE	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine soil in open grassland and near chaparral. 1,060–1,320 feet in elevation. Blooms May–July. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Hesperolinon didymocarpum* has only been documented in Lake and Colusa Counties (Calflora 2022; CCH2 2022; CNDDB 2022).
Drymaria-like western flax *Hesperolinon drymarioides*	—	—	1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland. Serpentine soils, mostly within chaparral. 1,290–6,570 feet in elevation. Blooms May–August. Annual.	*May occur*. Closed-cone coniferous forest, chaparral, and woodland habitat with serpentine substrate potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Sharsmith's western flax *Hesperolinon sharsmithiae*	—	—	1B.2	Chaparral. Serpentine substrates. 700–990 feet in elevation. Blooms May–July. Annual.	*May occur*. Serpentine chaparral habitat potentially suitable for this species is present in the project area. This species has documented occurrences northeast of Aetna Springs Preserve as well as one in proximity of the northeast section of the treatment area (CCH2 2022; CNDDB 2022). Additionally, this species has a documented occurrence southeast of the Okin Preserve Roadside/Evacuation Route treatment area (CNDDB 2022).
Bolander's horkelia *Horkelia bolanderi*	—	—	1B.2	Lower montane coniferous forest, chaparral, meadows and seeps, valley and foothill grassland. Grassy margins of vernal pools and meadows. 1,490–2,810 feet in elevation. Blooms June–August. Perennial.	*Not expected to occur*. Project area is out of known geographical range of species. *Horkelia bolanderi* is endemic to Colusa, Lake, and Mendocino counties (NatureServe 2022).
Parry's horkelia *Horkelia parryi*	—	—	1B.2	Chaparral, cismontane woodland. Openings in chaparral or woodland; especially known from the Ione formation in Amador County. 280–3,660 feet in elevation. Blooms April–September. Perennial.	*Not expected to occur*. Project area is out of known geographical range of species. *Horkelia parryi* is endemic to Amador, Calaveras, El Dorado, and Mariposa counties (NatureServe 2022).
California satintail *Imperata brevifolia*	—	—	2B.1	Coastal scrub, chaparral, riparian scrub, mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 10–4,910 feet in elevation. Blooms September–May. Geophyte.	*Not expected to occur*. Project area is out of known geographical range of species. *Imperata brevifolia* occurrence records from northern California may represent escapes from cultivation and are out of historic range of this species (Lazar et al. 2006).
Santa Lucia dwarf rush *Juncus luciensis*	—	—	1B.2	Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. 980–6,700 feet in elevation. Blooms April–July. Annual.	*May occur*. Wetland and streamside habitat potentially suitable for this species are present in the project area.
Burke's goldfields *Lasthenia burkei*	FE	SE	1B.1	Vernal pools, meadows and seeps, and other wetlands. Most often in vernal pools, wet meadows, and swales. 40–1,970 feet in elevation. Blooms April–June. Annual.	*Not expected to occur*. Project area is out of known geographical range of species. *Lasthenia burkei* is thought to be endemic to Sonoma, Lake, and Mendocino counties (NatureServe 2022).
Contra Costa goldfields *Lasthenia conjugens*	FE	–	1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Mesic sites. 0–1,540 feet in elevation. Bloom March–June. Annual.	*May occur*. 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[2]
Colusa layia *Layia septentrionalis*	—	—	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine or sandy soils. 40–3,610 feet in elevation. Blooms April–May. Annual.	*May occur*. Chaparral, woodland, and grassland habitat potentially suitable for this species is present in the project area. This species has documented historical occurrences northwest of Deer Park & Howell Mountain Roadside Expanded treatment area, where it is adjacent to Old Howell Mountain to Linda Falls Trailhead WUI, west of Aetna Springs Preserve and northwest of Wildlake Preserve Roadside Expanded treatment area (CCH2 2022; CNDDB 2022).
Legenere *Legenere limosa*	—	—	1B.1	Wet areas, vernal pools, ponds. 3–2,890 feet in elevation. Blooms April–June. Annual.	*May occur*. Wetland, vernal pool, and pond habitat potentially suitable for this species is present in the project area.
Jepson's leptosiphon *Leptosiphon jepsonii*	—	—	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Open or partially shaded grassy slopes. 180–2,810 feet in elevation. Blooms March–May. Annual.	*May occur*. Chaparral, woodland, and grassland habitat potentially suitable for this species is present in the project area. This species has documented occurrences south of Hospital WUI treatment area and directly adjacent to the east of Hospital Defensible Space and Evacuation treatment area and south of Pacific Union College Forest Health treatment area (Calflora 2022; CNDDB 2022). Additionally, this species has documented historical occurrences directly adjacent to the north of Deer Park & Howell Mountain Roadside Expanded treatment area (CCH2 2022).
Sebastopol meadowfoam *Limnanthes vinculans*	FE	SE	1B.1	Wet meadows. 40–1,000 feet in elevation. Blooms April–May. Annual.	*Not expected to occur*. Project area does not contain wet meadow habitat within the elevational range of this species.
Napa lomatium *Lomatium repostum*	—	—	1B.2	Chaparral, cismontane woodland. Rocky areas in volcanic and serpentine soils with mixed chaparral and black oak woodland communities. 290–2,730 feet in elevation. Blooms March–June. Perennial.	***Known to occur***. This species was recorded during J. Ruygt botanical surveys at Linda Falls Preserve and Wildlake Preserve and Nomad Ecology's protocol level botanical surveys at Linda Falls Preserve (Ruygt 2006; Ruygt 2007; Nomad Ecology 2022). Chaparral and woodland habitat with volcanic or serpentine soils potentially suitable for this species is present in other parts of the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Cobb Mountain lupine *Lupinus sericatus*	—	—	1B.2	Open wooded slopes, broadleaf upland forest, chaparral, lower montane conifer forest. 900–5,010 feet in elevation. Blooms March–June. Perennial.	***Known to occur***. This species was recorded during J. Ruygt botanical surveys at Wildlake Preserve (Ruygt 2006). Woodland, upland forest, chaparral, and conifer forest habitat potentially suitable for this species is present in other parts of the project area.
Marsh microseris *Microseris paludosa*	—	—	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Moist grassland, open woodland. 10–990 feet in elevation. Blooms April–June. Perennial.	*May occur*. Closed-cone conifer forest, woodland, and grassland habitat potentially suitable for this species is present in the project area.
Baker's navarretia *Navarretia leucocephala* ssp. *bakeri*	—	—	1B.1	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Mesic sites. 10–5,710 feet in elevation. Blooms April–July. Annual.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area. *Navarretia leucocephala* ssp. *bakeri* has two documented occurrences northeast of Deer Park & Howell Mountain Roadside Expanded treatment area (CCH2 2022; CNDDB 2022).
Few-flowered navarretia *Navarretia leucocephala* ssp. *pauciflora*	FE	ST	1B.1	Vernal pools, wetland. Volcanic ash flow, and volcanic substrate vernal pools. 1,390–2,810 feet in elevation. Blooms May–June. Annual.	*May occur*. Vernal pool habitat (Ruygt 2006) in volcanic substrate potentially suitable for this species is present in the project area.
Many-flowered navarretia *Navarretia leucocephala* ssp. *plieantha*	FE	SE	1B.2	Vernal pools, wetland. Volcanic ash flow vernal pools. 90–3,010 feet in elevation. Blooms May–June. Annual.	*Not expected to occur*. Project area is out of known geographical range of species. *Navarretia leucocephala* ssp. *plieantha* is endemic to Lake and Sonoma counties (NatureServe 2022).
Small pincushion navarretia *Navarretia myersii* ssp. *deminuta*	—	—	1B.1	Vernal pools. 1,165–1,165 feet in elevation. Blooms April–May. Annual.	*May occur*. Vernal pool habitat potentially suitable for this species is present in the project area (Ruygt 2006).
Porter's navarretia *Navarretia paradoxinota*	—	—	1B.3	Open, seasonally wet areas, meadows, serpentine soils. 540–2,760 feet in elevation. Blooms May–June. Annual.	*May occur*. Wet meadow habitat with serpentine substrate potentially suitable for this species is present in the project area at Aetna Springs Preserve (Ruygt 2019; Thorne et al. 2019). *Navarretia paradoxinota* has a documented occurrence northeast of Aetna Springs Preserve (CNDDB 2022).
Marin County navarretia *Navarretia rosulata*	—	—	1B.2	Closed-cone coniferous forest, chaparral. Dry, open rocky places; can occur on serpentine. 650–2,090 feet in elevation. Blooms May–July. Annual.	*May occur*. Closed-cone coniferous forest and chaparral habitat with serpentine and non-serpentine substrates potentially suitable for this species are present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Slender Orcutt grass *Orcuttia tenuis*	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 80–5,760 feet in elevation. Blooms May–September. Annual.	*Not expected to occur*. Project area is out of known geographical range of species.
Geysers panicum *Panicum acuminatum* var. *thermale*	—	SE	1B.2	Closed-cone coniferous forest, riparian forest, valley and foothill grassland. Usually around moist, warm soil in the vicinity of hot springs. 1,490–8,110 feet in elevation. Blooms June–August. Annual/Perennial.	*Not expected to occur*. Project area is out of known geographical range of species and does not contain hot spring habitat potentially suitable for this species. *Panicum acuminatum* var. *thermale* is known only from the geothermal areas in Lassen National Park and The Geysers (CNPS 2022).
Sonoma beardtongue *Penstemon newberryi* var. *sonomensis*	—	—	1B.3	Chaparral. Crevices in rock outcrops and talus slopes. 590–4,610 feet in elevation. Blooms April–August. Perennial.	*May occur*. Chaparral habitat potentially suitable for this species is present in the project area. *Penstemon newberryi* var. *sonomensis* has two documented occurrences in close proximity to Wildlake Preserve and two documented occurrences in close proximity to Aetna Springs Preserve (Calflora 2022; CCH2 2022; CNDDB 2022).
Calistoga popcornflower *Plagiobothrys strictus*	FE	ST	1B.1	Meadows and seeps, valley and foothill grassland, vernal pools. Alkaline sites near thermal springs and on margins of vernal pools in heavy, dark, adobe-like clay. 290–410 feet in elevation. Blooms March–June. Annual.	*Not expected to occur*. Project area does not contain thermal springs or alkaline vernal pool habitat potentially suitable for this species.
Napa blue grass *Poa napensis*	FE	SE	1B.1	Meadows and seeps, valley and foothill grassland. Low sterile ground near hot springs. 320–400 feet in elevation. Blooms May–August. Perennial.	*Not expected to occur*. Project area does not contain low ground habitat near hot springs potentially suitable for this species. *Poa napensis* is known only from two populations located in a small area in Calistoga (NatureServe 2022).
California alkali grass *Puccinellia simplex*	—	—	1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Saline flats, mineral springs. 3–3,010 feet in elevation. Blooms March–May. Annual.	*Not expected to occur*. Project area does not contain saline flats or mineral springs habitat near hot springs potentially suitable for this species.
Sanford's arrowhead *Sagittaria sanfordii*	—	—	1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,140 feet in elevation. Blooms May–October. Geophyte.	*May occur*. Pond, ditch, and marsh habitat potentially suitable for this species is present in the project area.
Lake County stonecrop *Sedella leiocarpa*	FE	SE	1B.1	Valley and foothill grassland, vernal pools, cismontane woodland. Level areas that are seasonally wet and dry out in late spring; substrate usually of volcanic origin. 1,690–2,100 feet in elevation. Blooms April–May. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Sedella leiocarpa* is thought to be endemic to Lake County (NatureServe 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Napa checkerbloom *Sidalcea hickmanii* ssp. *napensis*	—	—	1B.1	Chaparral. Rhyolitic substrates. 1,360–2,010 feet in elevation. Blooms April–June. Perennial.	*May occur*. Chaparral habitat with rhyolitic substrates potentially suitable for this species is present in the project area. *Sidalcea hickmanii* ssp. *napensis* has a documented occurrence by J. Ruygt north of the Wildlake Preserve Forest Health treatment area from 2022 (Calflora 2022).
Keck's checkerbloom *Sidalcea keckii*	FE	—	1B.1	Cismontane woodland, valley and foothill grassland. Grassy slopes. On serpentine-derived, clay soils, at least sometimes. 270–1,660 feet in elevation. Blooms April–May. Annual.	*May occur*. Woodland and grassland habitat with serpentine and non-serpentine substrates potentially suitable for this species are present in the project area.
Marsh checkerbloom *Sidalcea oregana* ssp. *hydrophila*	—	—	1B.2	Meadows and seeps, riparian forest. Wet soil of streambanks, meadows. 3,600–7,550 feet in elevation. Blooms July–August. Perennial.	*May occur*. Streambank and wetland habitat potentially suitable for this species is present in the project area. *Sidalcea oregana* ssp. *hydrophila* has documented historical occurrences north of Deer Park & Howell Mountain Roadside Expanded treatment area where it is adjacent to Old Howell Mountain to Linda Falls Trailhead WUI treatment area and west of Deer Park & Howell Mountain Roadside Expanded and Angwin PUC WUI treatment areas (CCH2 2022).
Kenwood Marsh checkerbloom *Sidalcea oregana* ssp. *valida*	FE	SE	1B.1	Marshes and swamps. Edges of freshwater marshes. 370–410 feet in elevation. Blooms June–September. Geophyte.	*Not expected to occur*. Project area is out of geographical range of this species. *Sidalcea oregana* ssp. *valida* is only known from two documented occurrences in Sonoma County (CNPS 2022; NatureServe 2022).
Long-styled sand-spurrey *Spergularia macrotheca* var. *longistyla*	—	—	1B.2	Marshes and swamps, meadows and seeps. Alkaline. 0–840 feet in elevation. Blooms February–May. Perennial.	*Not expected to occur*. Project area is out of elevational range of this species.
Socrates Mine jewelflower *Streptanthus brachiatus* ssp. *brachiatus*	—	—	1B.2	Chaparral, closed-cone coniferous forest. Serpentine areas and serpentine chaparral. 1,980–6,400 feet in elevation. Blooms May–June. Perennial.	*May occur*. Chaparral and closed-cone coniferous forest habitat with serpentine substrate potentially suitable for this species is present in the project area.
Freed's jewelflower *Streptanthus brachiatus* ssp. *hoffmanii*	—	—	1B.2	Chaparral, cismontane woodland. Serpentine rock outcrops, primarily in geothermal development areas. 1,600–4,010 feet in elevation. Blooms May–July. Perennial.	*Not expected to occur*. Project area is out of geographical range of this species. *Streptanthus brachiatus* ssp. *hoffmanii* has only been documented in Lake and Sonoma Counties (NatureServe 2022). Additionally, the project area does not contain geothermal activity habitat potentially suitable for this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Green jewelflower *Streptanthus hesperidis*	—	—	1B.2	Chaparral, cismontane woodland. Openings in chaparral or woodland; serpentine, rocky sites. 780–2,510 feet in elevation. Blooms May–July. Annual.	***Known to occur***. This species has documented occurrences at Okin Preserve, which is within the project area (Ruygt 2016). Chaparral and woodland habitat with and without serpentine potentially suitable for this species are present in other part of the project area.
Three Peaks jewelflower *Streptanthus morrisonii* ssp. *elatus*	—	—	1B.2	Chaparral. Serpentine barrens, outcrops, and talus. 260–2,680 feet in elevation. Blooms June–September. Perennial.	*May occur*. Chaparral habitat with serpentine substrate potentially suitable for this species is present in the project area. *Streptanthus morrisonii* ssp. *elatus* has a documented occurrence northwest of Aetna Springs Preserve (Calflora 2022).
Kruckeberg's jewelflower *Streptanthus morrisonii* ssp. *kruckebergii*	—	—	1B.2	Cismontane woodland. Scattered serpentine outcrops near the Lake/Napa County line. 700–3,400 feet in elevation. Blooms April–July. Perennial.	*Not expected to occur*. Project area is out of geographical range of this species. *Streptanthus morrisonii* ssp. *kruckebergii* is only known Napa County occurrences were recorded in northern Napa County at the Lake/Napa County line (Calflora 2022; CCH2 2022; CNDDB 2022).
Early jewelflower *Streptanthus vernalis*	—	—	1B.2	Chaparral, closed-cone coniferous forest. On serpentine. 2,000–2,600 feet in elevation. Blooms March–May. Annual.	*May occur*. Chaparral and closed-cone coniferous forest habitat with serpentine substrates potentially suitable for this species are present in the project area. *Streptanthus vernalis* has a documented occurrence northwest of Aetna Springs Preserve from 2004 (CNDDB 2022).
Slender-leaved pondweed *Stuckenia filiformis* ssp. *alpina*	—	—	2B.2	Marshes and swamps. Shallow, clear water of lakes and drainage channels. 980–7,060 feet in elevation. Blooms May–July. Geophyte.	*May occur*. Lake and drainage channel habitat potentially suitable for this species is present in the project area.
Napa bluecurls *Trichostema ruygtii*	—	—	1B.2	Cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest. Often in open, sunny areas. Also has been found in vernal pools. 90–2,240 feet in elevation. Blooms June–October. Annual.	*May occur*. Woodland, chaparral, grassland, conifer forest, and vernal pool habitat potentially suitable for this species is present in the project area. *Trichostema ruygtii* has documented occurrences by J. Ruygt northeast of Glendale Ranch/Linda Falls Preserve Forest Health treatment area and south of Pacific Union College Forest Health treatment area (CCH2 2022; CNDDB 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Two-fork clover *Trifolium amoenum*	FE	—	1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 10–1,020 feet in elevation. Blooms April–June. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Trifolium amoenum* is currently only known to be extant in Sonoma and Marin counties (NatureServe 2022).
Santa Cruz clover *Trifolium buckwestiorum*	—	—	1B.1	Coastal prairie, broadleafed upland forest, cismontane woodland. Moist grassland. Gravelly margins. 340–2,010 feet in elevation. Blooms April–October. Annual.	*Not expected to occur*. Project area is out of known geographical range of this species. *Trifolium buckwestiorum* is known to occur in Monterey, Santa Cruz, Sonoma, and Mendocino counties (Jepson 2022; NatureServe 2022).
Saline clover *Trifolium hydrophilum*	—	—	1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–990 feet in elevation. Blooms April–June. Annual.	*May occur*. Wet meadow habitat with slightly alkaline soils potentially suitable for this species is present in the project area at Aetna Springs Preserve (Ruygt 2019).
Coastal triquetrella *Triquetrella californica*	—	—	1B.2	Coastal bluff scrub, coastal scrub. Coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. 30–330 feet in elevation. Perennial.	*Not expected to occur*. Project area does not contain coastal scrub and coastal bluff scrub habitat potentially suitable for this species.
Oval-leaved viburnum *Viburnum ellipticum*	—	—	2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. 700–4,600 feet in elevation. Blooms May–June. Perennial.	*May occur*. Chaparral, woodland, and conifer forest habitat potentially suitable for this species is present in the project area.

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

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected by ESA)

State:

SE State Listed as Endangered (legally protected by CESA)

ST State Listed as Threatened (legally protected by CESA)

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)

2 Potential for Occurrence Definitions

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

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

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

Sources: Calflora 2022; CCH2 2022; CNDDB 2022; CNPS 2022, Jepson 2022, NatureServe 2022; Nomad Ecology 2022, Ruygt 2006, Ruygt 2007, Ruygt 2015, Ruygt 2016, Ruygt 2019, Thorne et al. 2019, Wyrick-Brownworth 2020.

Table B-3 Special-Status Wildlife Species Known to Occur in the Vicinity of the Treatment Areas and Their Potential for Occurrence in the Treatment Areas

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Amphibians and Reptiles				
California giant salamander *Dicamptodon ensatus*	—	SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	*May occur.* Habitat suitable for California giant salamander (streams, ponds, and wet forests) were observed throughout the project area. In addition, several documented occurrences of this species are recorded in the vicinity of Angwin (CNDDB 2022; iNaturalist 2022)
California red-legged frog *Rana draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	*Not expected to occur.* Although habitat suitable for California red-legged frog was observed in some portions of the project area, and the project area falls within the species documented range (BIOS 2016a), no modern occurrences of this species are documented in the project area or vicinity of the project area and occurrences previously documented closest to the project are identified in the CNDDB as "extirpated" and "possibly extirpated" from the Napa River near Calistoga and Pope Valley (CNDDB 2022). The closest documented occurrence is at the northern end of the Deer Park & Howell Mountain Roadside Expanded treatment area which represented one female documented in 1979; this occurrence is noted as possibly extirpated and also stated that subsequent repeated visits to the location never resulted in any positive detection of California red-legged frog. A second occurrence was documented approximately three miles south of the project area along Silverado Trail in 1919, and is thought to be extirpated (CNDDB 2022). The closest extant occurrences are located approximately 12.5 miles southwest of Angwin, on the east side of the Coast Range mountains in Santa Rosa, but extensive barriers to dispersal (e.g., SR 12, SR 29, agricultural development) would reduce the likelihood of dispersal into the project area (CNDDB 2022). SR 128 and Greeg Mountain would reduce the likelihood of dispersal from existing populations in this area into Angwin. Ponds observed in the project area during the October 18–20, 2022 reconnaissance-level survey with sufficient emergent vegetation suitable to support California red-legged frog breeding, such as the ponds and lakes associated with the Friesen Lakes water treatment plant, contained American bullfrog (*Lithobates catesbeianus*) populations which are known nonnative predators of California red-legged frog and may inhibit development of healthy

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
				populations of this species. The 1979 occurrence is the justification for the Deer Park & Howell Mountain Roadside Expanded treatment area's inclusion in the California Red-Legged Frog Injunction (Center for Biological Diversity v. U.S. EPA, 2006, Case No. 02-1580-JSW), and although the injunction applies in this treatment area, the inclusion is based on a possibly extirpated occurrence. There is no evidence of recent occupancy by red-legged frog in the project area, and the species is not expected to occur.
California tiger salamander - Sonoma County DPS *Ambystoma californiense* pop. 3	FE	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	*Not expected to occur.* The Sonoma population of California tiger salamander is restricted to the Santa Rosa-Sonoma area, and does not extend into the project area (BIOS 2016b). SR 128 and SR 29 likely serve as dispersal barriers, preventing this species from occurring in the project area.
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.	*May occur.* The project area is within the range for the Northwest/North Coast clade of Foothill yellow-legged frog, which is a California species of special concern (BIOS 2020). Habitat suitable for foothill yellow-legged frog (flowing streams with cobble) were observed in the project area during the October 2022 reconnaissance survey. Additionally, foothill yellow-legged frogs are documented extensively in Angwin and the surrounding region (CNDDB 2022).
Red-bellied newt *Taricha rivularis*	—	SSC	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over approximately 0.6 mile (1 km) to breed, typically in streams with moderate flow and clean rocky substrate.	*Not expected to occur*. The project area is outside of the range for this species (BIOS 2016c). This species range does not extend east of the Rutherford Valley.
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 0.3 mile (0.5 km) from water for egg-laying.	*May occur.* Habitat suitable for western pond turtle (aquatic areas of marshes, rivers, streams, and ponds) were present at ponds in the Friesen Lakes water treatment areas. Western pond turtle has been documented in the vicinity of the project area (CNDDB 2022). Some rivers on site may support western pond turtle breeding and foraging.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Birds				
American peregrine falcon *Falco peregrinus anatum*	FD	SD, FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	*May occur.* Habitat suitable for nesting American peregrine falcons (cliffs and banks) is present in the project area, and the species is known to occur and nest in the vicinity of the project (eBird 2022).
Bald eagle *Haliaeetus leucocephalus*	FD	SE, FP	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	*May occur.* Habitat suitable for nesting bald eagle is present adjacent to lakes in the Friesen Lakes Watershed Forest Health and Summit Lake to Ink Grade Forest Health treatment areas. Bald eagles are known to nest within the vicinity of the project, and occurrences are documented at Lake Berryessa (7 miles east of the project area) and Lake Hennesey (3 miles south of the project area, CNDDB 2022).
Black swift *Cypseloides niger*	—	SSC	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	*Not expected to occur.* Although black swift may use the project area as a migration corridor, this species' known breeding range does not include the Angwin area (BIOS 2016d).
Burrowing owl *Athene cunicularia*	—	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	*Not expected to occur.* The project area is outside of this species known breeding range. Although some areas north of Angwin are within the overwintering range of this species, no portion of the overwintering range occurs in or adjacent to the proposed project area (BIOS 2016e).
Golden eagle *Aquila chrysaetos*	—	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	*May occur.* Habitat suitable for golden eagle nesting (rolling hills, cliffs, and large trees with broken tops) is present in the project area, and the species is known to occur and nest in the vicinity of the project (eBird 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Northern spotted owl *Strix occidentalis caurina*	FT	ST, SSC	North coast coniferous forest, old growth, redwood. Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris and space under canopy.	***Known to occur***. Habitat suitable for northern spotted owl (mature conifer forest) is present in the project area, and nest sites and protected activity centers are documented in and around the project area near the Linda Falls/Glenwood, Pacific Union College forest health, and Old Howell Mountain Road treatment areas (CNDDB 2022). Habitat suitable for northern spotted owl was also observed in the Aetna and portions of Wildlake treatment areas, though no occurrences are documented there. Pacific Union College has conducted protocol surveys for northern spotted owl on their forest property since 2016; the activity centers in the area were initially active for several years but no activity has been documented in the areas since 2020 (Lecourt, pers. comm., 2022). The most recent survey was conducted on Pacific Union College property over the course of six site visits ending in August 2021, and resulted in no detection of spotted owl (Merhwein pers. comm., 2021).
Purple martin *Progne subis*	—	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	*May occur.* Habitat suitable for purple martin nesting (conifer forest with sufficient cavity roosts, human-made structures) is present in the project area, and the species is known to occur and nest in the vicinity of the project (CNDDB 2022). This species has been documented nesting in the treatment areas at Old Howell Mountain Road, in the vicinity of Friesen Lakes, and near the Wildlake fuel break (CNDDB 2022). In addition, nesting habitat suitable for the species was observed in all treatment areas during the October 2022 reconnaissance survey.
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.	*Not expected to occur*. The project area is outside of this species' known range (BIOS 2016f) and there are no occurrences of this species documented in the vicinity of the project area (eBird 2022); CNDDB 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Tricolored blackbird *Agelaius tricolor*	—	ST, SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	*May occur.* Habitat suitable for tricolored blackbird nesting (freshwater marsh and wetland, margins of ponds) is present in the project area, and the species is known to occur and nest in the vicinity of the project. One occurrence of a tricolored blackbird colony is documented 0.9 miles northeast of the Aetna Springs Preserve Forest Health project, and two additional occurrences has been documented 1.5 miles north and 3 miles east of the northern end of the Howell Mountain Road treatment area (CNDDB 2022). Nesting habitat suitable for the species was observed during the October 2022 reconnaissance survey in the treatment area at riparian areas throughout the project area, and high-quality nesting habitat was observed at the Friesen Lakes Watershed Forest Health, Friesan Drive (to Lookout Point) roadside, Angwin PUC WUI, and Audubon Cheyney Preserve Forest Health treatment areas.
White-tailed kite *Elanus leucurus*	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	*Known to occur.* Habitat suitable for nesting white-tailed kites (scattered oaks in open grasslands or meadows) is present in portions of the project area, and the species is known to occur in the project area and nest at two distinct sites 6.3 miles south and 7.2 miles southeast of the project (CNDDB 2022, eBird 2022).
Yellow rail *Coturnicops noveboracensis*	—	SSC	Freshwater marsh, meadow and seep. Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	Not expected to occur. Although habitat suitable for yellow rail nesting (freshwater marsh and meadow) is present in the project area, yellow rail is an infrequent overwintering species in parts of northern California which is not known to breed within the vicinity of the project area.
Yellow warbler *Setophaga petechia*	—	SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	*Known to occur.* Habitat suitable for yellow warbler nesting (riparian forest) is present throughout the project area. Yellow warbler has been documented throughout the project area (eBird 2022).
Yellow-breasted chat *Icteria virens*	—	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	*Known to occur.* Habitat suitable for yellow-breasted chat nesting (riparian thickets of willow and grape) is present throughout the project area. Yellow-breasted chat has been documented throughout the project area (eBird 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Fish				
Chinook salmon - California coastal ESU *Oncorhynchus tshawytscha* pop. 17	FT	—	Sacramento/San Joaquin flowing waters. Federal listing refers to wild spawned, coastal, spring and fall runs between Redwood Creek, Humboldt County and Russian River, Sonoma County.	*May occur.* Habitat suitable for this species is present in flowing waters in the project area. The Napa River is known to support anadromous fish including Chinook salmon – California coastal ESU, and there is connectivity between the Napa River and portions of the project area. Physical barriers to fish migration are present at the Bell Canyon Reservoir, which would prevent fish from entering the project area upstream from this reservoir. However, the culvert at Silverado Trail and Glass Mountain Road was examined during a study of Napa watershed salmon habitat, and it was determined that flow was sufficient to allow migration of fish during normal flow conditions (Napa RCD 2011). When sufficient water is flowing, fish may use this passage to enter the project area, and this species may be present at Bell Creek, Cañon Creek, Conn Creek, and other unnamed creeks in the south of the project area with connectivity. The majority of the project area falls within NOAA's mapped Essential Fish Habitat for chinook salmon (NOAA 2022).
Coho salmon - central California coast ESU *Oncorhynchus kisutch* pop. 4	FE	SE	Federal listing applies to populations between Punta Gorda and San Lorenzo River. State listing includes populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	*May occur.* Habitat suitable for this species is present in flowing waters in the project area. The Napa River is known to support anadromous fish including Coho salmon – central California coastal ESU, and there is connectivity between the Napa River and portions of the project area. Physical barriers to fish migration are present at the Bell Canyon Reservoir, which would prevent fish from entering the project area upstream from this reservoir. However, the culvert at Silverado Trail and Glass Mountain Road was examined during a study of Napa watershed salmon habitat, and it was determined that flow was sufficient to allow migration of fish during normal flow conditions (Napa RCD 2011). When sufficient water is flowing, fish may use this passage to enter the project area, and this species may be present at Bell Creek, Cañon Creek, Conn Creek, and other unnamed creeks in the south of the project area with connectivity. The majority of the project area falls within NOAA's mapped Essential Fish Habitat for coho salmon (NOAA 2022).
Hardhead *Mylopharodon conocephalus*	—	SSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	*May occur.* Habitat suitable for this species (aquatic streams with slow moving water) is present in streams and pools in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Northern coastal roach *Hesperoleucus venustus navarroensis*	—	SSC	Habitat generalists. Found generally in a wide variety of habitats in the Navarro River and Russian River basins where there is cover (e.g., fallen trees) and where alien predators are absent. Most abundant in tributaries with clear, well oxygenated water with dominant substrates of cobble and boulder, and shallow depths (4-20 inches) with pools up to 3.3 feet deep.	*Not expected to occur.* The project area is outside of this species' range. Northern coastal roach is found only in the Navarro River and Russian River basin, and there is no connectivity between the project area and these watersheds.
Pacific lamprey *Entosphenus tridentatus*	—	SSC	Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temperatures between 53-65 degrees F. Ammocoetes need soft sand or mud.	*May occur.* Habitat suitable for this species is present in flowing waters in the project area. Although the project area does not overlap the mapped current or historical range for this species (Reid and Goodman 2021; BIOS 2015a), the mapped range includes the Napa River in St. Helena, which has aquatic connectivity to the project area through Canon Creek and Bell Creek. In the absence of physical barriers preventing migration, which are not known to be present, Pacific lamprey could potentially access the project area.
Riffle sculpin *Cottus gulosus*	—	SSC	Permanent, cool headwater streams with rocky or gravelly substrate.	*Not expected to occur.* The project area is outside of the species' known range, which is restricted to the Russian River watershed (CalFish 2022).
Russian River tule perch *Hysterocarpus traskii pomo*	—	SSC	Low elevation streams of the Russian River system. Requires clear, flowing water with abundant cover. They also require deep (less than 3.3 ft) pool habitat.	*Not expected to occur*. The project area is outside of the species' known range, which is restricted to the Russian River watershed (Cook et al. 2010).
Sacramento hitch *Lavinia exilicauda exilicauda*	—	SSC	Warm, lowland freshwater streams, sloughs, lakes, and reservoirs, typically with aquatic vegetation. Require mud or small gravel substrate and can endure high temperatures for short periods of time.	*Not expected to occur*. The project area is outside of this species' known historic and current occupied range (BIOS 2015b).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus* pop. 8	FT	—	Sacramento/San Joaquin flowing waters. From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	*May occur*. Habitat suitable for steelhead (aquatic flowing water) was observed during the October 2022 reconnaissance survey in perennial waterways throughout the project area, including Bell Canyon Creek, and portions of Conn Creek. The project is within known range for this species (NOAA 2013). The Napa River and Mill Creek are NOAA Fisheries-designated critical habitat for steelhead, and the species is known to spawn, rear, and migrate in the area. The Napa River has connectivity with streams in the project area at Silverado Trail (Napa RCD 2011). When sufficient water is flowing, fish may use this passage to enter the project area, and this species may be present at Cañon Creek, Bell Creek, Conn Creek and other flowing waterways with connectivity along the southern portion of the project area.
Western brook lamprey *Lampetra richardsoni*	—	SSC	Require clear, cold water in minimally disturbed watershed with clean gravel near cover for spawning. Most individuals are nonpredatory and restricted to freshwater habitat, but some individuals develop predatory behaviors and can migrate to saline environments. Nest at low-velocity sites with gravel riffles at a depth of about 15 cm (Vladykov and Follet 1965).	*May occur.* Habitat suitable for western brook lamprey may be present in portions of perennial waterways in the project area including Bell Canyon Creek, Cañon Creek, and portions of Conn Creek. The project area is within range for this species (Vladykov and Follet 1965).
Western river lamprey *Lampetra ayresii*	—	SSC	May occur in coastal streams north of San Francisco Bay. Adults need clean, gravelly riffles, ammocoetes need sandy backwaters or stream edges, good water quality and temperatures < 25 C.	*Not expected to occur*. The project area is outside of this species' known range (BIOS 2015b)
Invertebrates				
California freshwater shrimp *Syncaris pacifica*	FE	SE	Aquatic, Sacramento/San Joaquin flowing waters. Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	*Not expected to occur*. California freshwater shrimp are thought to occur in the Upper Napa River watershed, which is northeast of the project area; however, the project area is located within watersheds which do not support this species (BIOS 2015c).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Crotch's bumble bee *Bombus crotchii*	—	SC	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum.*	***May occur***. Habitat suitable for Crotch's bumble bee is present in the project area and Napa County is within the current range for this species (CDFW 2023). Although Crotch's bumble bee is not known to occur in the vicinity of the project, bumble bees are underrepresented in species databases, and this species has potential to occur in the project area where nectar plants are present.
Monarch *Danaus plexippus*	FC	—	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	***Known to occur***. Habitat suitable for monarch foraging and breeding (grasslands with milkweed) is present in the project area, but Angwin does not provide overwintering habitat suitable for monarchs (Xerces Society 2017; Xerces Society et al. 2022). Occupied monarch overwintering habitat has been documented in Solano and Sonoma counties, which abut Napa County to the east and west; however, Napa County does not support overwintering, and has not been included in recent large-scale monitoring efforts (Xerces Society 2016). The majority of overwintering sites are located within 1.5 miles of the ocean or bays, which moderates temperatures, and at elevations below 300 feet; the project area fits neither of these conditions (Xerces Society 2016) One monarch was observed flying overhead during the reconnaissance survey in October 2022, and the Land Trust of Napa County has documented some monarch breeding in their properties in Napa county (LTNC 2022). Therefore, the project area may provide habitat suitable for monarch foraging and breeding but not for monarch overwintering.
Western bumble bee *Bombus occidentalis*	—	SC	Once common throughout much of its range, in California, this species is currently largely restricted to high elevation sites in the Sierra Nevada and the northern California coast. Habitat includes open grassy areas, chaparral, scrub, and meadows. Requires 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.	*Not expected to occur*. Although habitat suitable for western bumble bee is present in the project area and Napa County is part of the historic range for this species, western bumble bee is not currently known to occur in the region (Hatfield and Jepsen 2021). There is one historic (1953) occurrence of this species documented in Calistoga, which is approximately 2 miles south of the project area; however, this occurrence is likely extirpated (CNDDB 2022). A recent review of sensitive bumble bees confirmed that Napa County is outside of the current range for western bumble bee (CDFW 2023).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Mammals				
American badger *Taxidea taxus*	—	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	*May occur*. Habitat suitable for American badger (dry, open shrub, forest, or herbaceous habitat) is present in the project area. The closest documented occurrences are all greater than 10 miles from proposed treatment areas and are concentrated in Sonoma County and southern Napa County (CNDDB 2022). However, the species is potentially extant in the area because this species is under-documented in the CNDDB, and habitat potentially suitable for American badger is present throughout grassland, scrub, and forested habitats in the project area.
Fisher - West Coast DPS *Pekania pennanti*	—	SSC	North coast coniferous forest, old growth, riparian forest. Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest. Endangered status applies to Southern Sierra DPS.	*Not expected to occur*. Habitat suitable for fisher is present in the project area, but Angwin is located outside of the species' predicted habitat and known range (BIOS 2017). One occurrence of fisher was documented in 2013 near Middletown, Lake County, approximately 10 miles northwest of the project area (Allen et al. 2015). This motion-activated wildlife camera occurrence of fisher represents the furthest south modern detection for fisher, and was the first record of this species in the region since the 1940's. However, this was based on detection of a single individual in 2015, and Allen et al. concluded that further study is needed to determine if this occurrence truly represents a range extension for this species. California Department of Fish and Wildlife updated the California Wildlife Habitat Relationships fisher predicted habitat and fisher range after this discovery was made in 2016, and did not expand this species range into Lake, Sonoma, or Napa counties (BIOS 2017). This species is not expected to occur in the project area.
Pallid bat *Antrozous pallidus*	—	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	*May occur*. Habitat suitable for foraging and roosting pallid bats is present in the project area. Although no records of this species are documented within the project area, populations are known to occur close to Santa Rosa and Lake Berryessa (CNDDB 2022). Pallid bat may establish maternity or overwintering roosts in abandoned buildings, caves, or large diameter trees in the project area.
Ringtail *Bassariscus astutus*	—	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	*May occur.* Habitat suitable for ringtail is present in the project area. The majority of the project area is mapped as ringtail core habitat (BIOS 2016g). Although there are no documented occurrences of this species in the project area, ringtail is an elusive species which is underreported in public databases.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
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*. Habitat suitable for foraging and roosting Townsend's big-eared bats is present in the project area. One occurrence is documented south of the town of Angwin overlapping the Glendale Ranch/Linda Falls Preserve Forest Health, Old Howell Mountain to Linda Falls Trailhead WUI, and Deer Park & Howell Mountain Roadside Expanded treatment areas, and a second occurrence is recorded overlapping the Okin Preserve Roadside/Evacuation Route treatment area. (CNDDB 2022). Townsend's big-eared bat may establish maternity or overwintering roosts in abandoned buildings, caves, or large diameter trees in 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.* Habitat suitable for foraging and roosting western red bats is present in the project area. Western red bat may establish maternity or overwintering roosts in large diameter trees in the project area

Notes: CNDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act, California Natural Diversity Database = CNDDB, National Oceanic and Atmospheric Administration = NOAA

1 Legal Status Definitions

Federal:

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

State:

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

2 Potential for Occurrence Definitions

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

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

Known to occur: Species has been documented within the treatment site.

Sources: Allen at al. 2015; BIOS 2015a, BIOS 2015b, BIOS 2015c, BIOS 2016a; BIOS 2016b; BIOS 2016c; BIOS 2016d; BIOS 2016e; BIOS 2016f; BIOS 2016g; BIOS 2017; BIOS 2020; CalFish 2022; CNDDB 2022; Cook et al. 2010; eBird 2022; Hatfield and Jepsen 2021; iNaturalist 2022; LTNC 2022; Lecourt, pers. comm., 2022; Napa RCD 2011; NOAA 2013; NOAA 2022; Reid and Goodman 2021; Vladykov and Follet 1965; Xerces Society 2016; Xerces Society 2017; Xerces Society et al. 2022.

2.1 SPECIAL-STATUS PLANT SPECIES - ANALYSIS OF IMPACTS

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on the 55 special-status plant species listed in Table B-2 if present within treatment areas. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments for grassland and most forested communities because the same treatment activities would occur, and treatment would somewhat mimic the natural fire return interval. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth of competing vegetation, opens the tree canopy to allow more light penetration, or removes invasive competitors can be beneficial for some special-status plant populations; however, repeated treatments at too frequent intervals can have adverse effects on those same special-status plants. In particular, if retreatment occurs in chaparral communities at frequencies outside the natural fire return l, special-status plants associated with these community types could be adversely affected through habitat alteration.

Botanical surveys have been conducted in multiple treatment areas over the past fifteen years. J. Ruygt conducted a botanical resource assessment in 2006 at Wildlake Preserve (Ruygt 2006). Field searches were conducted between March 23 and June 17, 2006, mostly from jeep roads along the ridgeline. These were focused on sampling a cross section of the vegetation types and geologic formations and recording native species observed (Ruygt 2006). Due to the extent of Wildlake Preserve, time constraints, and rugged terrain, only a partial study of plants and vegetation was conducted. During field searches the special-status plant Cobb Mountain lupine (1B.2) was observed (Ruygt 2006). Due to the Wildlake Preserve Forest Health and Wildlake Preserve Roadside Expanded treatment areas not being analyzed completely and the botanical resource assessment being more than 5 years old, protocol-level botanical surveys would be required prior to implementing treatments.

J. Ruygt also conducted a botanical resource assessment in 2007 at Linda Falls Preserve (Ruygt 2007). Field surveys were conducted between March 26 and June 9, 2007, on and off trail, and were intended to be a representative sample of the property. Special-status plants and vegetation alliances were identified. Napa false indigo (1B.2) and narrow-anthered brodiaea (1B.2) are the special-status plants that were identified during field surveys. Nomad Ecology conducted protocol-level surveys at Linda Falls Preserve in 2022 (Nomad Ecology 2022). Field surveys were conducted between March and July 2022. Vegetation was mapped to the alliance/association level and special-status plants were identified (Nomad Ecology 2022). During protocol-level surveys the special-status plants Napa false indigo (1B.2), narrow-anthered brodiaea (1B.2), and Napa lomatium (1B.2) were identified (Nomad Ecology 2022). These protocol-level surveys conducted at Linda Falls Preserve will be valid for five years. Once they expire, new protocol-level surveys will be conducted. Specifically, where the Old Howell Mountain to Linda Falls Trailhead WUI and Glendale Ranch/Linda Falls Preserve Forest Health treatment areas overlap Nomad Ecology (2022) study area, protocol-level botanical surveys would not have to be conducted for 5 years from report date.

Botanical resource assessments were also conducted by J. Ruygt in 2015 at the Pacific Union College Forest (Ruygt 2015). Field surveys were conducted August 9-10, 2015, which, being late in the season, hindered ability to identify all plants present (Ruygt 2015). Vegetation alliances that were observed on the property were identified and included in the report. Napa false indigo (1B.2) was identified during field surveys (Ruygt 2015). A. Wyrick-Brownworth conducted a vegetation survey at Pacific Union College in 2020 as part of timber operations (Wyrick-Brownworth 2020). Floristic surveys were conducted October 22-23, 2020, and Napa false indigo (1B.2) was identified (Wyrick-Brownworth 2020). Because these botanical assessments were not protocol-level botanical surveys and occurred outside of the identification period of most potentially occurring special-status plants, protocol-level botanical surveys would be required for the Pacific Union College Forest Health treatment area prior to implementing treatments.

J. Ruygt also conducted a protocol-level botanical resource assessment in 2016 at the Okin Preserve (Ruygt 2016). Field surveys were conducted between February 23 and September 3, 2016 (Ruygt 2016). The purpose of the assessment was to develop a list of potentially occurring rare plants, identify

special-status plants during field surveys, collect data to describe vegetation alliances/associations, and assess biodiversity and habitat quality (Ruygt 2016). Special-status plants identified during botanical surveys were Napa false indigo (1B.2), narrow-anthered brodiaea (1B.2), two-carpellate western flax (1B.2), and Green jewelflower (1B.2). Due to this botanical assessment being over five years old, protocol-level botanical surveys would be required in the Okin Preserve Roadside/Evacuation Route treatment area prior to implementing treatments.

Botanical resource assessments were also conducted by J. Ruygt in 2019 at the Aetna Springs Preserve (Ruygt 2019). Field surveys were conducted over the course of four days between April 29 to November 5, 2019 (Ruygt 2019). The purpose of the assessment was to develop list of potentially occurring rare plants, identify special-status plants during field surveys, collect data to describe vegetation alliances/associations, and assess biodiversity and habitat quality (Ruygt 2019). Greene's narrow-leaved daisy (1B.2) was identified during field surveys (Ruygt 2019). Due to this botanical assessment being over five years old, protocol-level botanical surveys would be required for the Aetna Springs Preserve Forest Health and Aetna Springs Preserve Roadside treatment areas prior to implementing treatments.

Of the 55 special-status plant species that are known to or may be present in the project area, 10 species – dwarf downingia, Loch Lomond button-celery, Boggs Lake hedge-hyssop, Santa Lucia dwarf rush, legenere, Baker's navarretia, few-flowered navarretia, Sanford's arrowhead, small pincushion navarretia, and slender-leaved pondweed – are typically associated with wetlands (e.g., freshwater emergent wetlands, freshwater forested/shrub wetlands, springs, seeps, wet meadows) (Table B-2). Thirty-five special-status plant species – including Clara Hunt's milk-vetch, Calistoga ceanothus, Hall's harmonia, Jepson's leptosiphon, and oval-leaved viburnum – are associated with upland habitats that are present in the project area. The remaining eight special-status plant species – Napa false indigo, northern meadow sedge, pappose tarplant, Contra Costa goldfields, marsh microseris, marsh checkerbloom, Napa bluecurls, and saline clover – are facultative species, meaning they may be found in both wetland and upland habitats (Table B-2).

Locally rare plant species in Napa County are identified in the Napa County Baseline Data Report (Napa County 2005). Locally rare plant species have previously been identified in the project area. At Linda Falls Preserve locally rare plants identified during botanical surveys are creeping wild ginger (*Asarum caudatum*), California willow herb (*Epilobium foliosum*), and candelabrum monkeyflower (*Erythranthe pulsiferae*) (Ruygt 2007; Nomad Ecology 2022). At Wildlake Preserve locally rare plants identified during botanical surveys comprise mountain Oregon grape (*Berberis nervosa*), short-seeded waterwort (*Elatine brachysperma*), arrowleaf buckwheat (*Eriogonum compositum* var. *compositum*), Carolina geranium (*Geranium carolinianum*), Orcutt's quillwort (*Isoetes orcuttii*), and slender bog rush (*Juncus effusus* var. *gracilis*) (Ruygt 2006). At Aetna Springs Preserve during botanical surveys the locally rare plant holly-leaf navarretia (*Navarretia atractyloides*) was identified (Ruygt 2019).

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

implementation. In this case, surveys could be conducted to determine presence or absence and, depending on the results, may provide greater flexibility in terms of the timing and types of treatments.

Thirty-four of the 55 special-status plant species that may occur within the project area are herbaceous annual species or geophytes, as indicated in Table B-2. Impacts on these species would be avoided by treatment activities that do not kill or remove vegetation or disturb the soil (i.e., manual treatment, prescribed burning, prescribed herbivory, and herbicide application) during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October–December (Levine et al. 2008). Treatment activities that could potentially kill or remove seeds, stumps, and underground root structures (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted without prior implementation of SPR BIO-7. If treatments that do not kill or remove vegetation or disturb the soil (e.g., manual treatments, prescribed burning, prescribed herbivory, and herbicide application) cannot be completed in the dormant season and would be implemented during the growing period of annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified special-status plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below. Twenty-one of the 55 special-status plant species that have potential to occur within the project area are perennial species, which could not be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes; therefore, protocol-level surveys under SPR BIO-7 would be necessary to identify them prior to implementing treatment activities regardless of the timing of treatments.

Where protocol-level surveys are required (pursuant to SPR BIO-7) and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, would be implemented to avoid loss of identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet would be established around the area occupied by the species within which prescribed burning, prescribed herbivory, mechanical treatment, manual treatment, and herbicide application, would not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from the proposed treatment in the occupied habitat area. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects would need to be made in consultation with the California Department of Fish and Wildlife (CDFW) and/or USFWS, depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants, under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance measures or design alternatives to reduce impacts would be identified. If any locally rare plants are observed during protocol-level surveys, then Mitigation Measure BIO-1b would apply in these areas. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the locally rare plant species within the County of Napa and design treatments to avoid a substantial loss of the locally rare species to the maximum extent feasible. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants would be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants would be maintained because treatment activities and maintenance treatments would be designed to ensure that treatments, including follow-up maintenance, maintain habitat function for the special-status plant species present.

2.1.1 Napa False Indigo

Napa false indigo is a shrub species with a California Rare Plant Rank of 1B.2 that has been documented during protocol-level or focused surveys at Linda Falls Preserve, Okin Preserve, and Pacific Union College (Ruygt 2007; Ruygt 2015; Ruygt 2016; Wyrick-Brownworth 2020; Nomad Ecology 2022). Documented occurrences at Linda Falls Preserve are in the Glendale Ranch/Linda Falls Preserve Forest Health treatment area and Pacific Union College occurrences are in the Pacific

Union College Forest Health treatment area (Ruygt 2007; Ruygt 2015; Wyrick-Brownworth 2020; Nomad Ecology 2022). The documented occurrence identified during protocol-level surveys at Okin Preserve is located directly adjacent to the Okin Preserve Roadside/Evacuation Route treatment area (Ruygt 2016). This species was also observed during the reconnaissance-level survey in the Pacific Union College treatment area on October 20, 2022. Additionally, Napa false indigo has been identified in or directly adjacent to Old Howell Mountain Road Fuel Break and Angwin PUC WUI treatment areas (CNDDB 2022). Napa false indigo has potential to occur in treatment areas with broadleafed upland forest, chaparral, or cismontane woodland vegetation types.

Napa false indigo is known to resprout following fire (Ackerly et al. 2019; Palladini, pers. comm., 2023a). Altered fire regimes (fire suppression policies) have contributed to crowded growing conditions for Napa false indigo in project treatment areas. During the reconnaissance-level survey, Ascent biologists observed overcrowding by competing vegetation surrounding Napa false indigo in the Pacific Union College Forest Health treatment area. Napa false indigo typically grows in openings within broadleafed upland forest, chaparral, or cismontane woodland that have a range of fire regimes (see Section 2.1.5, “Treatment Maintenance”). Fire return intervals for Northern California mixed evergreen forest vegetation range from 5 to 105 years (Creasy et al. 2005), chaparral vegetation types typically require a minimum of 10 to 30 years between fires depending on the chaparral type (Abrahamson 2014; Syphard et al. 2019), and fire return intervals in California oak woodland vegetation types range from 10 years to 120 years (Sapsis and Bradley 2005). Portions of the project area burned in the Glass Fire (2020) but other portions of the project area have not burned in recorded burn history, which is over 120 years (CAL FIRE 2019). This is outside of the natural fire return interval for all three vegetation types in which Napa false indigo naturally occurs. The Pacific Union College Forest Health treatment area where Napa false indigo was observed during the reconnaissance-level survey is part of the project area that has not burned in over 120 years and is therefore outside of the natural fire return interval. Due to Napa false indigo being a resprouter and being adapted to openings, it is expected that this species would benefit from treatment and that the population of Napa false indigo may expand after treatment. Following initial treatment, prescribed burn and mechanical maintenance treatments in vegetation types containing Napa false indigo would not occur until the treatment areas are outside the minimum fire return interval for the associated vegetation alliance.

Pursuant to Mitigation Measure BIO-1b, pile burning would not be carried out within 50 feet of Napa false indigo plants because piles burn hot enough to kill seeds in the soil bank and could scorch live Napa false indigo shrubs; however, broadcast burning within approximately 5 feet of Napa false indigo plants would provide beneficial effects for these plants by eliminating competitors, stimulating germination, and exposing bare mineral soil on which new seedlings can establish. The final buffer size would be determined by a qualified biologist or RPF based on site-specific conditions (e.g., fuel loading around the Napa false indigo plants); the buffer would protect individual Napa false indigo plants from burning or scorching during broadcast burning while also allowing stimulation of the seed bank. Manual treatments are also proposed in areas occupied by this species, but individual plants would be avoided. Although Mitigation Measure BIO-1b will require establishing a minimum 50-foot no-disturbance buffer around special-status plants, exceptions to this buffer are proposed for manual treatments immediately adjacent to individual Napa false indigo shrubs to remove other plant species that are competing with this species for sunlight, water, and other resources.

2.2 SPECIAL-STATUS WILDLIFE SPECIES – ANALYSIS OF IMPACTS

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

2.2.1 California Giant Salamander

California giant salamander has potential to occur in the project area (Table B-3). Habitat potentially suitable for this species includes perennial and intermittent streams and associated uplands, including forest habitat under leaf litter and logs. California giant salamanders are typically found within approximately 165 feet of stream habitat.

If present, California giant salamanders could be inadvertently injured or killed by heavy machinery, personnel, vehicles, broadcast burning, and pile burning (if piles are placed on or near refugia within 165 feet of stream habitat). Workers on foot conducting manual treatment activities and herbicide application are relatively unlikely to cause injury, mortality, or substantial disturbance to individual California giant salamanders because workers on foot move relatively slowly throughout the project area and could avoid stepping on salamanders. The potential for initial treatment activities and maintenance treatments to result in adverse effects on California giant salamander was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on California giant salamander can be clearly avoided by physically avoiding the habitat suitable for these species, then no additional measures would be required. To fully avoid habitat potentially suitable for California giant salamander, a 200-foot no-disturbance buffer would be implemented around aquatic resources suitable for this species before commencement of treatment activities per SPR BIO-1. In addition, SPR HYD-4 requires that WLPZs ranging from 50 to 150 feet adjacent to all Class I and Class II streams within the project area would be implemented. However, these measures may not result in full avoidance of California giant salamanders if the 200-foot buffer is determined to be infeasible, or if manual activities implemented within the WLPZ resulted in injury or mortality of these species.

If the 200-foot no-disturbance buffer is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and focused surveys for California giant salamander would be conducted within 200 feet of aquatic habitat suitable for these species prior to implementation of manual, mechanical, prescribed burning, herbicide, and prescribed herbivory treatments. If California giant salamanders are not detected within the project area during focused surveys, then no mitigation for the species would be required. If these species are detected during focused surveys or assumed present, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, the implementing entity 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 CDFW as necessary to avoid injury to or mortality of these species.

HABITAT FUNCTION

Habitat function for California giant salamander would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs adjacent to project area would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover, no treatment within WLPZs).

2.2.2 California Red-Legged Frog

California red-legged frog is not expected to occur in the project area; however, this species is included in this discussion because the northern 0.9 mile of the Deer Park and Howell Mountain Roadside Expanded treatment area overlaps mapped “non-critical habitat” sections of the California Red-Legged Frog Injunction (Center for Biological Diversity v. US EPA, 2006, Case No. 02-1580-JSW) areas. Therefore, this injunction applies to these portions of the project.

The inclusion of this portion of the project area in the California Red-legged Frog Injunction area is based on a 1979 occurrence of this species documented in a pond 80 feet southeast of Howell Mountain Road. This occurrence was reported as two juvenile California red-legged frogs observed in

April 1979, however, frequent return trips to the site over many years has resulted no additional observations of California red legged frog. As recently as 2004, this site was visited by researchers, and no California red-legged frogs were present in the pond. Additionally, in recent visits it has been reported that the natural spring that used to be present is dry by April. California red-legged frog is considered possibly extirpated at this location in the CNDDB (CNDDB 2022). The closest modern occurrences of this species are documented more than 12 miles away, and existing highways, roads, and topographical features would be expected to pose dispersal barriers from these known populations into the project area.

Some of the herbicides (e.g., glyphosate, triclopyr, imazapyr) that may be applied within the project area are subject to the California Red-Legged Frog Injunction (Center for Biological Diversity v. US EPA, 2006, Case No. 02-1580-JSW), and therefore, specific application requirements apply in areas subject to the injunction regardless of the presence of the species (EPA 2022).

2.2.3 Foothill Yellow-Legged Frog

Foothill yellow-legged frog has potential to occur within the project area (Table B-3). Aquatic habitat potentially suitable for this species is present within Class I and Class II streams, marshes, ponds, and wet meadows in the project area, and the species is known to occur in the Glendale Ranch/Linda Falls Preserve Forest Health treatment area (Palladini, pers. comm. 2023b). 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).

If present, foothill yellow-legged frog could be inadvertently injured or killed by heavy machinery, personnel, vehicles, broadcast burning, and pile burning (if piles are placed on or near refugia within 200 feet of stream habitat). Workers on foot conducting manual treatment activities and herbicide application are relatively unlikely to cause injury, mortality, or substantial disturbance to individual foothill yellow-legged frogs because workers on foot move relatively slowly throughout the project area and could avoid stepping on foraging frogs. The potential for initial treatment activities and maintenance treatments to result in adverse effects on foothill yellow-legged frog was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on foothill yellow-legged frog can be clearly avoided by physically avoiding the habitat suitable for these species, then no additional measures would be required. To fully avoid habitat potentially suitable for foothill yellow-legged frog, a 200-foot no-disturbance buffer would be implemented around aquatic resources suitable for this species before commencement of treatment activities per SPR BIO-1. In addition, 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 foothill yellow-legged frog if the 200-foot buffer is determined infeasible, if individuals are present within ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules) and adjacent to a project area, or if manual activities implemented within the WLPZ resulted in injury or mortality of special-status frogs.

If the 200-foot no-disturbance buffer (pursuant to SPR BIO-1) is determined to be infeasible for certain treatments, then SPR BIO-10 would apply, and focused visual encounter surveys for foothill yellow-legged frog would be conducted by a qualified RPF or biologist within suitable habitat areas prior to implementation of manual, mechanical, prescribed burning, herbicide, and prescribed herbivory treatment activities. If foothill yellow-legged frogs are not detected within the project area during focused surveys, then no mitigation for this species would be required. If foothill yellow-legged frogs are identified during focused surveys, then Mitigation Measure BIO-2b for foothill yellow-legged frog would be implemented.

Under 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 individual foothill yellow-legged frogs would be implemented. The lead agency and implementing entities may consult with CDFW for technical information regarding appropriate measures to avoid and minimize impacts.

HABITAT FUNCTION

Habitat function for foothill yellow-legged 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 project area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover). 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.

2.2.4 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 (Reese and Welsh 1997). Western pond turtles spend the majority of their time in the aquatic environment and may be present within upland terrestrial habitat up to approximately 1,500 feet from water. These turtles lay eggs in the terrestrial environment and young typically overwinter in the nest on land. Adults may overwinter in aquatic habitats or buried in leaf litter on land, and western pond turtles may be found on land during all times of the year (Reese and Welsh 1997).

If present, western pond turtle could be inadvertently injured or killed by heavy machinery, personnel, vehicles, broadcast burning, or pile burning. Personnel implementing manual treatments and herbicide application treatments would conduct these activities on foot, and the likelihood of a turtle or burrow being inadvertently crushed or otherwise destroyed would be very low. Additionally, the likelihood of a turtle or burrow being crushed by livestock would be low due to the size and depth of the burrows. The potential for treatment activities and maintenance treatments to result in adverse effects on western pond turtle was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on western pond turtles can be clearly avoided by physically avoiding the habitat suitable for these species, then no mitigation would be required. Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams and lakes would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV (e.g., drainage canals, irrigation ditches) streams. Additionally, pursuant to SPR HYD-3, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas using temporary fencing or active herding. However, because western pond turtles may be present relatively large distances (i.e., up to approximately 1,500 feet) from aquatic habitat in the project 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 ground-disturbing treatment activities (i.e., mechanical treatments) and prescribed burning. If western pond turtles are identified during focused surveys, Mitigation Measure BIO-2b for this species would be implemented for mechanical treatment and prescribed burning.

Under Mitigation Measure BIO-2b, the implementing entity would require flagging areas for avoidance, relocation of individual turtles 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 implementing entity may consult with CDFW for technical information regarding appropriate measures.

HABITAT FUNCTION

Habitat function for western pond turtle would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and pursuant to SPR HYD-4 treatments within stream WLPZs adjacent to the project area would be limited (e.g., no mechanical treatment, retention of at least 75 percent surface cover).

2.2.5 Northern Spotted Owl

Northern spotted owls nest in the coastal California region from February 1 through July 31, with the fledgling season extending through September 15 (USFWS 2012). During the nesting season (February 1 through July 31), adults, eggs, and owlets are dependent on and generally unable to leave the nest location, and therefore are sensitive to disturbance from loud and continuous noise. During the fledgling season (May 1 through September 15), northern spotted owl young may leave the nest site, but are still reliant on their parents and on the localized region around the nest. During the fledging season, owls would be expected to flee from localized noise disturbance but are still reliant on the region for foraging and therefore may be sensitive to impacts of broadcast burning or pile burning activities. No USFWS-designated critical habitat for northern spotted owl is present in the project area; however, just southeast and adjacent to the project area, critical habitat is present in Las Posadas State Forest.

Habitat suitable for northern spotted owl nesting, foraging, and dispersal is present in the project area, and the species is known to occur. 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 nesting and roosting due to the age and composition of the forest stands.

Two northern spotted owl activity centers and observations are located in the project area: one activity center is present in the southern end of the Glendale Ranch/Linda Falls Preserve Forest Health treatment area, and a second activity center is documented in the Pacific Union College Forest Health unit (CNDDB 2022). Within the documented activity center the Pacific Union College Forest Health Ecological Restoration treatment area, a northern spotted owl male and female pair was documented utilizing this area in 2015; subsequent protocol-level surveys conducted during 2020, 2021, and 2022 resulted in no detections of northern spotted owl in or around the region of Pacific Union College forest (Merhwein, pers. comm., 2021). Northern spotted owl surveys were conducted at Linda Falls Preserve Forest Health Treatment in 2021 and 2022, with no owls detected. However, suitable habitat is present and nearby properties outside of the treatment area have reported more recent detections of spotted owls (Palladini, pers. comm. 2023c). Additional activity centers have been documented within two miles north of the project area in Pope Valley adjacent to the Summit Lake to Ink Grade Forest Health treatment area, and in the open space south of Aetna Springs Preserve Forest Health treatment area (CNDDB 2022). As described above, spotted owl activity has been documented within and adjacent to the project area, but no documented nests have been observed in the vicinity of Angwin.

During the October 2022 reconnaissance survey, it was determined that the habitat surrounding the documented northern spotted owl activity centers in the Pacific Union College Forest Health unit are associated with a second-growth redwood forest. The surrounding habitat contains extremely dense forest due to a history of fire exclusion, and the area closest to the activity center is maintained with manual understory vegetation thinning due to the presence of an access road and Pathfinders camp at the site (Lecourt, pers. comm., 2022). The redwood forest habitat within the activity center is characterized by large-diameter redwood trees (i.e., 20–30 inches DBH). The area has been historically logged more than 80 years ago, and some of the trees are beginning to resemble old-growth redwoods; however, the habitat is still considered second-growth redwood due to the logging history in the area.

Manual, mechanical, prescribed burning, and prescribed herbivory treatment activities that include the use of heavy equipment, multiple vehicles, prescribed fire, or loud hand tools (e.g., chainsaws) 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 31). The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on habitat suitable for northern spotted owl can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., nesting season),

then further avoidance measures would not be required. Because northern spotted owl occurrences are located in and adjacent to the project area, a qualified RPF or biologist will review northern spotted owl occurrence data in the CNDDB and the results of protocol-level surveys conducted previously in the area by Pacific Union College to determine whether a documented northern spotted owl nesting occurrence is present within 0.25 mile of the project area under SPR BIO-1. Potential impacts on northern spotted owl nests resulting from loud and continuous noise would be avoided by implementing a limited operating period within 0.25 mile occupied or unsurveyed nesting habitat during the northern spotted owl nesting season (February 1–July 31). This applies to mechanical treatments, manual treatments, and prescribed burning activities within 0.25 mile of the nest. Additionally, potential impacts resulting from prescribed burning (pile burning and broadcast burning) treatments within 0.25 mile of habitat suitable for northern spotted owl during the fledgling season would be avoided by implementing a limited operating period within 0.25 mile of this habitat through the nesting and fledgling season (May 1 through September 15). Herbicide application and prescribed herbivory 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 for manual, mechanical, and prescribed burning activities within 0.25 mile of nesting habitat during the nesting season (February 1–July 31); or implementing the limiting operating period for controlled burning activities within 0.25 mile of nesting habitat during the fledgling season (May 1–September 15) 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 project 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). To provide flexibility and recognizing that conditions change over time, the ultimate decision of where protocol-level surveys will be conducted will be determined by the implementing qualified RPF or biologist, however, it could be anticipated that protocol-level northern spotted owl survey would be required Glendale Ranch/Linda Falls Preserve Forest Health treatment area, and the Pacific Union College Forest Health treatment area, where previous records of the species are documented. Based on the recommendation of the qualified RPF or biologist, additional areas may be included or existing survey areas changed, in order to best provide survey coverage within suitable habitat in the treatment area.

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-2a 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 US 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.

As described above in Section 2.1.1, "*Treatment Types*," WUI fuel reduction treatments would occur within close vicinity of developed areas and 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 healthy trees (i.e., conifers, hardwoods) greater than 12 inches DBH (except for hazard trees, as determined by an RPF or qualified biologist), which would be the most likely features to be used by these species due to the cover provided by larger trees. Canopy cover within forest habitats occupied or potentially occupied by northern spotted owl 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. Pursuant to BIO-2a, no nest trees will be removed, and no trees providing canopy for or around active nest trees will be removed, year-round. Additionally, two to five snags would be retained per acre, with a preference for the largest snags that exhibit the form and decay characteristics favored by northern spotted owl and other wildlife. Measures related to northern spotted owl impact avoidance and habitat function maintenance have been adapted from the *Programmatic Formal Consultation on the Natural Resources Conservation Services' Conservation Practices in Four Bay Area Counties*, which has been operated for protection of northern spotted owl habitat function in Napa County since 2018 (USFWS 2018).

Pursuant to Mitigation Measure BIO-2a, and because this species is listed under ESA, the final determination for habitat function maintenance must be made by the lead agency and implementing entities in consultation with CDFW and USFWS. For the reasons summarized above, CAL FIRE determined that implementation of treatments would maintain habitat function for northern spotted owl and consulted with USFWS to seek technical input on this determination, as required. On April 3, 2023, The County of Napa sent a memo describing the measures that would be taken to avoid mortality, injury, and disturbance to northern spotted owl and to maintain habitat function to Robynn Swan, Senior Environmental Scientist (Specialist) at CDFW and Ryan Olah, Coast Bay Division Supervisor at USFWS, in compliance with Mitigation Measure BIO-2a. Ryan Olah responded on May 5, 2023 stating that the Service reviewed the proposed project details and had no additional comments on the proposed project or conservation measures. Robynn Swan responded on April 17th, 2023 stating that CDFW concurs with the proposal to minimize impacts and maintain habitat function. The project area was expanded in September 2023 and the lead agency was transferred to CAL FIRE. A follow-up consultation occurred with USFWS and CDFW. USFWS was contacted on October 19, 2023 and responded on November 3, 2023 stating that the Service had no additional comments on the updated project area. A follow-up consultation with CDFW was initiated on October 27, 2023 and Katanja Waldner responded on November 8, 2023 with requests for several updates. Katanja's updates during the second round of consultation did not include any changes regarding northern spotted owl.

2.2.6 Other Special-Status Birds

Eight additional special-status bird species may occur within the project area: American peregrine falcon, bald eagle, golden eagle, purple martin, tricolored blackbird, white-tailed kite, yellow warbler, and yellow-breasted chat (Table B-3).

Treatment activities, including manual treatment, mechanical treatments, prescribed burning, and prescribed herbivory, conducted during the nesting bird season (February 1–September 15) could result in direct loss of active nests if trees or shrubs containing nests are removed or burned. White-tailed kite nesting season extends from February 1 – October 31, and white-tailed kite nests could be directly adversely impacted by these activities occurring during this period. For nests within vegetation that would not be removed, treatment activities including mechanical treatments, manual treatments, prescribed burning, herbicide application, and prescribed herbivory could result in disturbance to active

nests from auditory and visual stimulus (e.g., heavy equipment, chain saws, vehicles, personnel, high density of livestock) potentially resulting in abandonment and loss of eggs or chicks.

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 the season of sensitivity (i.e., 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–September 15, and adverse effects on nesting white-tailed kite would be avoided for treatments that occur outside of the white-tailed kite nesting season (February 1 – October 31. Additionally, nesting habitat for American peregrine falcon (i.e., cliffs), bald eagle (i.e., large diameter trees near bodies of water), and golden eagle (i.e., cliffs, large solitary trees) would not be targeted for treatment or removed, which would help avoid direct loss of nests and nesting habitat for these species.

If conducting some treatments outside of the nesting season for white-tailed kite (February 1 – October 31) is determined to be infeasible, then SPR BIO-10 would apply and focused white-tailed kite nest surveys would be conducted prior to treatment activities. If the nesting season for other special-status nesting birds (February 1 – September 15) is determined to be infeasible, then SPR BIO-10 would apply, and focused nesting bird surveys for American peregrine falcon, bald eagle, golden eagle, purple martin, tricolored blackbird, yellow warbler, and yellow-breasted chat would be conducted prior to implementation of treatment activities. 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, golden eagle, tricolored blackbird, and white-tailed kite) and BIO-2b (for purple martin, yellow warbler, and yellow-breasted chat) would be implemented.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 0.5 mile would be established around active nests for American peregrine falcon, bald eagle, and golden eagle nests, 0.25 mile for white-tailed kite 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 or golden eagle nests would not be removed pursuant to the federal Bald and Golden Eagle Protection Act.

HABITAT FUNCTION

Habitat function for special-status birds would be maintained because treatment activities would retain most live trees (i.e., conifers, hardwoods) greater than 12 inches DBH (except for hazard trees) and two to five snags per acre would be retained to provide wildlife habitat. Additionally, treatments within riparian habitat (which provides nesting habitat for several of the special-status bird species that may occur in the project area [e.g., tricolored blackbird, yellow warbler, yellow-breasted chat]) that is included within a WLPZ would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Additionally, pursuant to SPR HYD-3, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas using temporary fencing or active herding. Yellow-breasted chat may nest in shrub habitat. Pursuant to SPR BIO-5, treatments implemented in chaparral would be designed to avoid type conversion of chaparral vegetation and to maintain habitat function, including function for nesting birds. Pursuant to Mitigation Measure BIO-2a, this determination for American peregrine falcon, bald eagle, golden eagle, tricolored blackbird, and white-tailed kite was made by the County of Napa in consultation with CDFW. The County of Napa contacted CDFW on April 3rd, 2023 to seek technical input on the determination that habitat function would be maintained for American peregrine falcon, bald eagle, golden eagle, tricolored blackbird, and white-tailed kite. Robynn Swan responded on April 17th, 2023 stating that CDFW concurs with the County of Napa's proposal to minimize impacts and maintain habitat function for these species. The project area was expanded in September 2023 and the lead agency was transferred to CAL FIRE. A follow-up consultation occurred with USFWS and CDFW. USFWS was contacted on October 19, 2023 and responded on November 3,

2023 stating that the Service had no additional comments on the updated project area. A follow-up consultation with CDFW was initiated on October 27, 2023 and Katanja Waldner responded on November 8, 2023 with requests for several updates. Katanja's updates included an extended limited operating period for nesting raptors and white-tailed kite. These requested changes were incorporated into the analysis and the SPRs and mitigation measures (Attachment A).

2.2.7 Special-Status Fish

Six special-status fish species may occur within the project area: Chinook salmon – California coastal Evolutionarily Significant Unit (ESU), coho salmon – central California coast ESU, hardhead, Pacific lamprey, steelhead – central California coast Distinct Population Segment, and western brook lamprey (Table B-3). Potential habitat for all of these species is present in perennial waterways in the project area including Bell Canyon, Cañon Creek, portions of Conn Creek, and other tributaries to the Napa River. Anadromous fishes can access portions of the southern part of the project via the Napa River crossing at Glass Mountain Road and Silverado Trail (Table B-3). Hardhead, Pacific lamprey, and western brook lamprey may also be present in flowing intermittent waterways throughout the project area. If present, special-status fish could be adversely affected by treatment activities which result in deposition of debris or hazardous waste into aquatic habitats, or which result in direct alteration of aquatic habitats. The potential for treatment activities and maintenance treatments to result in adverse effects on special-status fish was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status fish can be clearly avoided by physically avoiding habitat for these species, then mitigation would not be required. Treatment would not occur within aquatic habitat, and WLPZs ranging from 50 to 150 feet adjacent to all Class I and Class II streams within the project area would be implemented per SPR HYD-4. SPR HYD-4 also requires that equipment including tractors and vehicles must not be driven in wet areas or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry. Pursuant to SPR HYD-3, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas using temporary fencing or active herding. Additionally, implementation of SPR HYD-5 will ensure that herbicide application is conducted so that herbicide treatment activities do not result in adverse impacts on aquatic resources or riparian areas. Adverse effects on special-status fish would be clearly avoided through habitat avoidance and implementation of these SPRs, and further mitigation would not be required.

HABITAT FUNCTION

Habitat function for special-status fish would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs and equipment limitation zones adjacent to treatment areas would be limited pursuant to SPR BIO-4 (retention of at least 75 percent of the overstory and 50 percent of the understory in riparian habitat), SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover within the WLPZ) and SPR HYD-3 (exclusion of environmentally sensitive areas such as waterbodies, wetlands, and riparian areas from prescribed herbivory treatment using temporary fencing or active herding). Furthermore, SPR BIO-4 requires avoidance of vegetation removal that could reduce stream shading and increase stream temperatures, in riparian habitats.

2.2.8 Special-status Bumble Bees

Crotch's bumble bee may occur in the project area. Although no occurrences of Crotch's bumble bee are documented near the project area, habitat suitable for bumble bee foraging, overwintering, and breeding is present, and the project falls within the range for Crotch's bumble (CDFW 2023). Crotch's bumble bee was designated as a candidate for listing as endangered under CESA by the California Fish and Game Commission on June 12, 2019. A November 13, 2020, court decision by the Superior

Court of Sacramento ruled that insects are not eligible for listing under CESA and vacated the candidacy of bumble bee species. CDFW appealed this decision, and on May 31, 2022, the Third District Court of Appeal in Sacramento ruled that insects are eligible for listing under CESA, and the candidacy of bumble bee species under CESA has be reinstated. Crotch's bumble bee has recently undergone declines in abundance and distribution and are no longer present across much of their historic range (Xerces 2018).

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

In the 2019 Program EIR, Mitigation Measure BIO-2g was proposed as a feasible set of actions to reduce potentially significant impacts on special-status bumble bees. Mitigation Measure BIO-2g includes several measures to reduce the likelihood of potential mortality, injury, or disturbance to special-status bumble bees and to maintain habitat function for projects within the range of the species and where habitat suitable for bumble bees is present. These measures include limiting prescribed burning and herbicide application during the bumble bee flight and nesting season (March through September), as feasible, where project objectives would still be met; and conducting treatments in a patchy pattern to retain floral resources and provide refuge for bumble bees, as feasible. At the time, techniques for detecting overwintering and nesting bumble bees and determining the occurrence and severity of impacts were limited. The statewide scope of potential effects analyzed, and for purposes of good faith and full disclosure under CEQA, this impact was designated in the Program EIR as potentially significant and unavoidable. However, addressing a potential effect at a project-specific level may result in a different significance conclusion if evidence supports it.

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

In 2023, CDFW developed survey techniques based on best available research to avoid impacts to this species; these have been integrated into the project-specific implementation of SPR BIO-1, SPR BIO-10, and Mitigation Measure BIO-2g. With implementation of Mitigation Measure BIO-2g and applicable SPRs including CDFW's 2023 recommendations, habitat function for Crotch's bumble bee would be maintained during and after treatment implementation. In addition to the requirements of Mitigation Measure BIO-2g in the original Program EIR, treatments would be designed and implemented in a patchy pattern to retain floral resources and provide refuge for bumble bees. Treatment activities in ecological restoration treatment areas would retain select logs and snags that provide wildlife habitat but do not pose safety hazards; some of these features may provide suitable nesting or overwintering sites for Crotch's bumble bee. The proposed vegetation treatments would not cause any conversion or loss of natural land cover or permanent soil disturbance that could remove availability of potential underground nesting or overwintering sites over the long term. Ecological restoration treatment in grassland areas would focus on broadcast burning and herbicide application to encourage native species and promote habitat quality within the natural fire regime, retaining floral resources and other elements of habitat function for grassland species. SPR BIO-9 would be implemented, which would prevent the spread of

invasive plants and noxious weeds through application of best management practices before, during, and after treatments.

NCFF and Napa County (the lead agency at the time) consulted with CDFW to seek technical input on the Angwin-Deer Park Wildfire Resilience project on April 3rd, 2023. During the initial consultation, the project did not include an analysis for bumble bees, because special-status bumble bees were analyzed as having no potential to occur in the project area based on known range and historic occurrences. In June 2023, CDFW published the *Survey Considerations for CESA Candidate Bumble Bees (*CDFW 2023), which included detailed and updated range maps for special-status bumble bee species. This report included a detailed and updated range map for Crotch's bumble bee, which places the project within range for this species. In response, during updates to the Angwin-Deer Park Wildfire Resilience Project PSA/Addendum in November 2023, Crotch's bumble bee was added to the project analysis. These updates included additions to SPR BIO-1, SPR BIO-10, and mitigation measure BIO-2g consistent with CDFW 2023 and with previous recommendations from the CDFW Bay Delta Region provided regarding similar fuels reduction projects in July 2023. NCFF integrated these changes into the PSA and MMRP.

Implementation of Mitigation Measure BIO-2g and applicable SPRs will reduce potential mortality, injury, and other disturbances to habitat function and to individual Crotch's bumble bee if the species is present during treatment activities. With implementation of Mitigation Measure BIO-2g and applicable SPRs, the impact of the project on habitat function for Crotch's bumble bee would be less than significant with mitigation. These potential effects would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

2.2.9 Monarch

Monarch is a candidate for listing under ESA, and while USFWS determined that the listing of monarch as threatened or endangered under ESA was warranted, the agency determined that listing was precluded due to higher priority actions. Federal candidate species are not provided protection under ESA. There are several documented observations of milkweed and several observations of adult monarchs within the project area (Xerces Society et al. 2022). The Angwin area does not provide monarch overwintering habitat because of the distance from the ocean and elevation (Xerces Society 2016); however, monarch breeding and foraging habitat is present within the project area. The project area 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, herbicide application, and prescribed herbivory, could result in temporary removal of floral resources, including monarch host plants (i.e., milkweed), or direct mortality of monarch butterflies. The potential for treatment activities to result in adverse effects on monarch butterflies was examined in the Program EIR.

Implementation of treatments would not result in removal of overwintering habitat, because the project area does not provide suitable habitat for monarch overwintering. Treatments would occur in habitat that may provide foraging or breeding habitat (i.e., milkweed) for monarchs.

During the foraging and breeding season, monarchs are typically found in prairies, meadows, grasslands, and along roadsides (NPS 2017). In the project area, the most suitable foraging and breeding habitat for monarchs would be grasslands, which comprise approximately 2.3 percent of the total project area (Table B-1). Common California milkweed species are not limited to grasslands, and can also occur in riparian areas, wetlands, open woodlands, and openings in forests. Treatments within riparian areas and wetlands would be avoided or limited pursuant to SPR HYD-4, SPR BIO-4, and Mitigation Measure BIO-4, and milkweed would not be targeted for treatments in these habitats. Treatment activities, which are designed to thin overstocked forest and improve forest resiliency may benefit milkweed species within these habitats by reducing heavy litter and duff buildup and reducing shading.

Treatment activities implemented within grassland habitat would typically be prescribed burning and prescribed herbivory, because these treatment types are most effective in grassland habitat. After prescribed burning in meadows located in the foothills of Butte County where purple milkweed (*Asclepias cordifolia*), showy milkweed (*Asclepias speciosa*), and narrow-leaved milkweed (*Asclepias fascicularis*) were present, populations of milkweed species either increased or were maintained (Hankins, pers. comm., 2022). In spring 2022, a monarch larva was observed on purple milkweed in a Butte County area that was burned in fall of 2021 (Hankins, pers. comm., 2022). While this study occurred in Butte County, these same monarch host plant species (purple milkweed, showy milkweed, and narrow-leaved milkweed) are all present in Napa County. Removal of milkweed would not be targeted during prescribed herbivory treatments and livestock may avoid eating milkweed because the plants are unpalatable and contain glycosides which are toxic to cattle, goats, and sheep (Hall et al. 2020). Therefore, direct loss of monarch eggs or larvae during prescribed herbivory treatments would be limited. Because treatments would not target and are not expected to remove significant amounts of milkweed plants; prescribed burning would occur within the recommended window to avoid impacts on monarch eggs and larvae; and treatments may maintain grassland habitats or improve habitat for milkweed species in grasslands, woodlands, and forests; project implementation would not substantially reduce the number or restrict the range of monarch butterflies and impacts on this species would be less than significant.

HABITAT FUNCTION

Habitat function for monarch would be maintained because treatment activities and maintenance treatments would not target monarch host plants and because all habitat suitable for monarch in the project area would not be treated at once (i.e., treatments in the project area would occur over the course of several years). Prescribed burning and prescribed herbivory would also reduce encroachment of woody species and maintain grassland areas where this encroachment is occurring, potentially maintaining foraging and breeding habitat for monarchs. Mechanical treatment and manual treatment in woodland and forest habitats may improve habitat for milkweed by reducing heavy litter and duff buildup and reducing shading.

2.2.10 American Badger

Habitat potentially suitable for American badger is present within grassland and open woodland in the project area, and the species is known to occur 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 the project area. Manual treatments, prescribed herbivory, and herbicide application treatments will 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., shrub and forest habitat), personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. While the likelihood of a badger den being crushed by livestock would be low due to the size and depth of the burrows, the density of goats used for prescribed herbivory, the presence of humans and the associated herding and watch dogs, could result in interruption of feeding and potential loss of young during the American badger maternity season (February 15 through July 1; Bylo et al. 2014). This impact from prescribed herbivory is not anticipated to occur from cattle grazing as the intensity human presence is low, especially when compared to goats, and American badgers frequently burrow within rangelands where cattle are present. The potential for treatment activities to result in adverse effects on American badger was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on American badger can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. However, because American badgers may use a den year-round, 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. If American badger dens are not detected during focused surveys, 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. Its size would be determined by the qualified RPF or biologist, and no treatment activities would occur within this buffer.

HABITAT FUNCTION

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.

2.2.11 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) 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, shrubs would be targeted for treatment and would not be avoided through implementation of other measures. The potential for treatment activities, including maintenance treatments, to result in adverse effects on ringtail was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on ringtail can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., 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, and injury or mortality would not be expected. Manual treatments, prescribed herbivory, and herbicide application treatments are not expected to result in adverse effects on ringtail dens because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. However, mechanical treatments and prescribed burning conducted during the ringtail maternity season (i.e., the period during which young would be present in a den, approximately April 15–July 31) could result in destruction of active dens within shrub habitat or disturbance to active dens potentially resulting in abandonment and loss of young, 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–July 31) under SPR BIO-1.

If conducting mechanical treatments and prescribed burning outside of the ringtail maternity season is determined to be infeasible, then SPR BIO-10 would apply, and presence of ringtail would be assumed, or focused surveys for ringtail would be conducted within the project area before implementation of treatment activities. If ringtails are assumed present or are detected during focused surveys, then year-round take avoidance measures, den surveys, and daily sweeps would be implemented pursuant to Mitigation Measure BIO-2a. If an active den is identified by a qualified RPF or biologist, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW, as required by Mitigation Measure BIO-2a.

If the presence of ringtail within the project 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 July 31. Avoidance and minimization measures would include but not be limited to pre-treatment den surveys, daily sweeps of the project area, and biological monitoring.

HABITAT FUNCTION

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) greater than 12 inches DBH, and would retain two to five snags per acre (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 lead agency and implementing entities in consultation with CDFW. The County of Napa contacted CDFW on April 3rd, 2023 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. Robynn Swan responded on April 17th, 2023 stating that CDFW concurs with the County of Napa's proposal to minimize impacts and maintain habitat function for ringtail. The project area was expanded in September 2023 and the lead agency was changed to CAL FIRE, and a follow-up consultation occurred with CDFW on October 27, 2023. Katanja Waldner responded on November 8, 2023 with requests for several updates. Katanja's updates included extending the end of the limited operating period from June 30 to July 31 to protect ringtail. These requested changes were incorporated into this analysis and the SPRs and mitigation measures (Attachment A).

2.2.12 Special-Status Bats

Habitat potentially suitable for three special-status bat species – pallid bat, Townsend's big-eared bat, and western red bat – is present within forest habitat, rocky areas, caves, 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 the season of sensitivity (i.e., maternity season), then mitigation would not be required. Adverse effects on special-status bat maternity roosts would be clearly avoided if initial and maintenance treatments were implemented outside of the bat maternity season (April 1–August 31; Caltrans 2004).

Treatment activities, including manual treatments, mechanical treatments, and prescribed burning conducted within habitat suitable for bats during the bat maternity season (April 1–August 31) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chain saws, vehicles, personnel) or smoke (e.g., pile burning) potentially resulting in abandonment of the roost and loss of young. Herbicide 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 one to five people; thus, these treatments would not result in substantial disturbance to special-status bat roosts. Prescribed herbivory would be a relatively low-impact treatment activity that would not result in loud noise or smoke; thus, these treatments would not result in substantial disturbance to special-status bats. The potential for treatment activities to result in adverse effects on special-status bats was examined in the Program EIR.

If implementation of some mechanical or manual treatments, or prescribed burning, would occur during the bat maternity season (April 1-August 31), then SPR BIO-10 would apply, and focused surveys for these species would be conducted by a qualified RPF or biologist within habitat suitable for these species before initiation of manual, mechanical, and prescribed burning treatments. If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer of 250 feet would be established around active pallid bat, Townsend's big-eared bat, and western red bat roosts and mechanical treatments, manual treatments, and pile burning would not occur within this buffer.

HABITAT FUNCTION

Habitat function for special-status bats would be maintained because treatment activities and maintenance treatments would not result in removal of most trees (i.e., conifers, hardwoods) greater

than 12 inches DBH and would retain at least 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.

3 SENSITIVE NATURAL COMMUNITIES

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

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, species associated with the following sensitive natural communities were observed, including redwood, tanbark oak, big-leaf maple, California bay, Douglas fir, and whiteleaf manzanita. Redwood forest and tanbark oak forest sensitive natural communities were observed during the reconnaissance-level survey. Sensitive natural communities that have been confirmed in the project area during SPR BIO-1 survey and previous studies in the project area are McNab cypress woodland, Douglas fir–ponderosa pine forest (old-growth), Oregon white oak woodland, redwood forest, tanbark oak forest, Ponderosa pine forest, and hoary, common, and Stanford manzanita chaparral (Table B-3) (Ruygt 2006; Ruygt 2015; Wyrick-Brownworth 2020; Nomad Ecology 2022). At Wildlake Preserve during J. Ruygt botanical surveys McNab cypress woodland and Oregon white oak woodland were identified (Ruygt 2006). Oregon white oak woodland was also identified during J. Ruygt botanical surveys at Pacific Union College along with tanbark oak forest (Ruygt 2015). Pacific Union College forest is also where Douglas fir–ponderosa pine forest (old-growth) was identified during A. Wyrick-Brownworth botanical surveys (Wyrick-Brownworth 2020). At Linda Falls Preserve, hoary, common, and Stanford manzanita chaparral was identified during protocol-level surveys conducted by Nomad Ecology, along with ponderosa pine–Douglas fir forest association which is in the ponderosa pine alliance (Nomad Ecology 2022), a Napa County biotic community of limited distribution (Napa County 2005).

Valley foothill and montane riparian habitats are present within the project area adjacent to streams and ponds. At Wildlake Preserve during botanical surveys Ruygt (2006) observed white alder–bay–maple riparian forest. Additionally, white alder (mixed willow–California bay–big leaf maple) riparian forest is mapped in the Wildlake Preserve Forest Health treatment area and the Wildlake Preserve Roadside Expanded treatment area (Thorne et. al 2019). White alder (mixed willow–California bay–big leaf maple) riparian forest is also mapped in the Audubon Cheyney Preserve Forest Health and Hospital Water Supply Roadside Expanded treatment areas (Thorne et. al 2019). Valley oak–(California bay–coast live oak–walnut–ash) riparian forest macrogroup is mapped in Deer Park & Howell Mountain Roadside Expanded and Hospital Defensible Space and Evacuation treatment areas (Thorne et. al 2019). California bay–leather oak– (*Rhamnus* spp. (foothill pine)) mesic serpentine provisional alliance, which is defined with CWHR habitat types of montane riparian and mixed chaparral, is mapped in the Aetna Springs Preserve Forest Health, Aetna Springs Preserve Roadside, Friesen Lakes Watershed Forest Health, Okin Preserve Roadside/Evacuation Route, and Wildlake Preserve Roadside Expanded (Thorne et. al 2019). At Linda Falls Preserve during protocol level botanical surveys, Nomad Ecology (2022) mapped Oregon ash–white alder groves woodland association. No riparian vegetation was observed at Okin Preserve during botanical surveys (Ruygt 2016). Under SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams would be implemented for prescribed burning, mechanical treatment, manual treatment, prescribed herbivory, 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, prior to implementation of treatment activities, SPR BIO-3 would be implemented to identify and map the extent of riparian habitat within a treatment area. As required under SPR BIO-4, treatments in riparian habitats would retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation and would be limited to removal of uncharacteristic or undesired fuel loads (e.g., dead or dying

vegetation, invasive plants). Additionally, prior to any treatments in riparian habitat, the implementing entity would notify CDFW pursuant to California Fish and Game Code 1602, when required.

Mixed chaparral habitat (i.e., mixed manzanita– (interior live oak–California bay–chamise) west county group, white leaf manzanita–leather oak–(chamise–Ceanothus spp. (foothill pine)) xeric serpentine group, leather oak–California bay–Rhamnus spp. mesic serpentine chaparral group, leather oak–white leaf manzanita–chamise xeric serpentine group, and chamise alliance) is present within the project area (Ruygt 2006; Ruygt 2015; Ruygt 2016; Ruygt 2019; Thorne et. al 2019; Nomad Ecology 2022). As required by SPR BIO-5, treatments, including maintenance treatments, implemented in chaparral would be designed to avoid type conversion of chaparral vegetation and to maintain chaparral habitat function. This would include identifying the chaparral vegetation types to the alliance level, determining appropriate treatment prescriptions based on current fire return interval departure and condition class of the chaparral vegetation alliances in the project area, retaining at least 35 percent relative final density of mature chaparral vegetation, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. The implementing entity would demonstrate with substantial evidence that the habitat function of the specific chaparral vegetation types (i.e., alliances) present would be maintained or enhanced by the treatments applied. Ecological restoration treatments would not be implemented in stands of chaparral vegetation that are within their natural fire return interval unless the implementing entity demonstrates with substantial evidence that the habitat function of the chaparral vegetation alliances would be improved as determined by an RPF or a qualified biologist.

Based on previous studies in the project area (e.g., Ruygt 2006; Ruygt 2007; Ruygt 2015; Ruygt 2016; Ruygt 2019; Wyrick-Brownworth 2020; Nomad Ecology 2022), species ranges, occurrence data, vegetation mapping, aerial photos, and the reconnaissance-level survey of the project area conducted pursuant to SPR BIO-1, 12 sensitive natural communities (i.e., natural communities with a rarity rank of S1, S2, or S3) are known to be present in the project area and 18 additional sensitive natural communities may occur in the project area. Additionally, Nomad Ecology (2022) identified sensitive vegetation associations during protocol level surveys at the Linda Falls Preserve, consisting of ponderosa pine–Douglas fir forest and woodland association, coast live oak–California bay woodland association and Oregon ash–white alder grove woodland association, which all have a rarity rank of S3 (vulnerable). Napa County-designated sensitive biotic communities and the Manual of California Vegetation's sensitive natural communities associated rarity rank, if applicable, and Napa County Vegetation Map habitat types within which the communities may occur are presented in Table B-3. Habitat types provided may not be an exhaustive list. Napa County's designated 'Biotic Communities of Limited Distribution' (Napa County 2005) that may or are known to occur in the project area are also included in Table B-3. In addition, several oak woodland and forest types (i.e., black oak forest and woodland alliance, blue oak woodland and forest alliance, canyon live oak forest and woodland alliance, coast live oak woodland and forest alliance, mixed oak forest and woodland alliance, Oregon oak woodland and forest alliance, and valley oak woodland and forest alliance), which are sensitive habitats pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4, are known to occur in the project area (Ruygt 2006; Ruygt 2015; Ruygt 2016; Ruygt 2019; Thorne et. al 2019). Oak woodlands cover 33 percent of Napa County, the highest density of oak woodlands in any County in the state (Napa County 2008).

Sensitive natural communities in **bold** are known to occur in the project area. Some sensitive natural communities are not identified in the project area by Napa County's mapping (Thorne et al. 2019) but have been confirmed in field surveys. These include McNab cypress woodland, which was observed during J. Ruygt botanical surveys at Wildlake (Ruygt 2006), and ponderosa pine alliance. Ponderosa pine–Douglas fir alliance is mapped in the project area (Thorne et al. 2019) and was classified as ponderosa pine alliance in the 2004 mapping (Thorne et al. 2004) around the time the Napa County Baseline Report came out designating ponderosa pine alliance as one of the "Biotic Communities of Limited Distribution" (Napa County 2005). Additionally, Nomad Ecology (2022) mapped ponderosa pine–Douglas fir forest association in the Linda Falls Preserve.

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

Sensitive Biotic/Natural Community	Rarity Rank[1]	Napa County Vegetation Mapping (Thorne et al. 2019)[2]
McNab cypress woodland	**SBC; S3**	**McNab Cypress Alliance**
Douglas fir–ponderosa pine forest (old-growth)	**SBC; S3**	**Douglas fir–ponderosa pine Alliance**
Redwood forest	**SBC; S3**	**Coast Redwood Alliance**
Ponderosa pine alliance	LD; S4	**Ponderosa Pine-Douglas Fir Forest Alliance**
Douglas fir–tanoak forest and woodland	S3	Douglas Fir Alliance
Oregon white oak woodland	**SBC; S3**	**Oregon White Oak Alliance**
Tanoak alliance	**LD; S3**	**Tanbark Oak Alliance**
California bay forests and woodlands	SBC; S3	California Bay–Madrone–Coast Live Oak–(Black Oak Big Leaf Maple) Macrogroup
Bigleaf maple forest and woodland	S3	California Bay–Madrone–Coast Live Oak–(Black Oak Big Leaf Maple) Macrogroup
Mixed serpentine chaparral*	**SBC; S3**	**Leather oak–white leaf manzanita–chamise Xeric Serpentine Group**
Mixed serpentine chaparral*	**SBC; S3**	**Leather oak–California bay Rhamnus spp. Mesic Serpentine Group**
Mixed serpentine chaparral*	**SBC; S3**	**White leaf Manzanita–Leather Oak–Chamise–Ceanothus Xeric Serpentine Group**
Mixed serpentine chaparral*	**SBC; S3**	**California bay–leather oak–Rhamnus spp. mesic serpentine Group**
Eastwood manzanita chaparral	S3	Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County Group
Hoary, common, and Stanford manzanita chaparral	**S3**	Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County Group
Hairy leaf–woolly leaf ceanothus chaparral	S3	Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County Group
Torrent sedge patches	S3	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup
Oregon ash groves	S3	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup
Hinds's walnut and related stands	S1	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup
Wild grape shrubland	S3	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup
Box-elder forest and woodland	S3	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup
California coffee berry–western azalea scrub–Brewer's willow	S3	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup; Coast Redwood Alliance; Mixed Manzanita–(Interior Live Oak–California Bay–Chamise) West County Group
Valley oak riparian forest and woodland	S3	Valley Oak–(California Bay–Coast Live Oak–Walnut–Ash) Riparian Forest Macrogroup
Valley oak woodland and forest	**S3**	**Valley Oak Woodland Alliance**

Sensitive Biotic/Natural Community	Rarity Rank[1]	Napa County Vegetation Mapping (Thorne et al. 2019)[2]
Serpentine bunchgrass grassland	**SBC; S3**	**Serpentine Grasslands Group**
Wildflower field (located within native grassland)	SBC; S3	Upland Annual Grasslands and Forbs Formation Group; California Annual Grasslands Group
Creeping ryegrass grassland	SBC; S3	Upland Annual Grasslands and Forbs Formation Group; California Annual Grasslands Group
Purple needlegrass grassland*	SBC; S4	Upland Annual Grasslands and Forbs Formation Group; California Annual Grasslands Group
One-sided bluegrass grassland	SBC; S3	Upland Annual Grasslands and Forbs Formation Group; California Annual Grasslands Group
Native grassland	LD; S3	Upland Annual Grasslands and Forbs Formation Group; California Annual Grasslands Group

[1] SBC = Napa County sensitive biotic community considered sensitive by DFW because of their rarity, high biological diversity, and/or susceptibility to disturbance or destruction (California Department of Fish and Game 2003). LD = considered sensitive due to limited local distribution (encompass less than 500 acres of cover within the County and are considered by local biological experts to be worthy of conservation) (Napa County 2005). The MCV alliances are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) (Sawyer et al. 2009). If an SBC or LD did not have a corresponding MCV rarity ranking S3 was applied since these communities were identified rare on the local county level. Purple needlegrass grassland is identified as an SBC but has an MCV ranking of S4. Due to purple needlegrass grassland being an SBC in Napa County it should be treated as an S3 for mitigation purposes.

[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.

* Conservation priorities are marked with an asterisk. Every community analyzed by Wild (2002) received a conservation prioritization score ranging from one to ten, which took into account endemicity, risk of development, statewide rarity, and degree of protection. Communities receiving scores of seven or greater were determined to be conservation priorities in Napa County (Napa County 2005)

Source: Napa County 2005; Sawyer et al. 2009; Thorne et. al 2019; Compiled by Ascent Environmental in 2022

While not all of the dominant species associated with sensitive natural communities included in Table B-4 were observed during the reconnaissance-level survey, reported by J. Ruygt or Nomad Ecology, or included in Napa County vegetation mapping data, these communities still may be present. Not all treatment areas have been surveyed and some of the treatment areas were surveyed over ten years ago and/or were not surveyed comprehensively, such as Wildlake Preserve (Ruygt 2006). As a result, prior to implementation of treatment activities, SPR BIO-3 would be implemented and a qualified RPF or biologist would identify sensitive natural communities in the project area to the alliance level pursuant to Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018a) and using the Manual of California Vegetation (including updated natural communities data at http://vegetation.cnps.org/).

Impacts on sensitive natural communities and oak woodlands would be avoided by avoiding treatments in these communities. However, if avoiding treatment activities within identified sensitive natural communities or oak woodlands would preclude achieving overall treatment objectives, then Mitigation Measure BIO-3a would apply in these areas to ensure that the characteristics that qualify the communities as sensitive (e.g., dominant canopy species, canopy relative percentage of dominant species, species composition) are retained post-treatment to the extent feasible. Under Mitigation Measure BIO-3a, a qualified RPF or biologist 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 any Napa County sensitive biotic communities or biotic communities of limited distribution are observed during protocol-level surveys, then Mitigation Measure BIO-3a would apply in these areas. Additionally, the qualified RPF or biologist conducting protocol-level surveys would need to determine the status of the sensitive biotic communities or biotic communities of limited distribution within the County of Napa and design

treatments to avoid a substantial loss of these communities to the maximum extent feasible. For purposes of implementing mitigation, the rarity ranking of sensitive biotic communities and biotic communities of limited distribution will be equivalent to the Manual of California Vegetation's vulnerable (S3) rarity rank due to these communities being rare at a local level. If habitat function of sensitive natural communities, oak woodlands, sensitive biotic communities, or biotic communities of limited distribution would not be maintained through implementation of Mitigation Measure BIO-3a, then Mitigation Measure BIO-3b and Mitigation Measure BIO-3c would apply, and unavoidable losses of these resources would be compensated through restoration or preservation of these vegetation types within or outside of the project area.

The potential for treatment activities to result in adverse effects on sensitive habitats, as described above, was examined in the Program EIR. This impact on sensitive habitats is within the scope of the Program EIR, because, within the project area boundary, general habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the existing environmental conditions outside the treatable landscape in the project area are essentially the same as those within the treatable landscape; therefore, the potential impact on sensitive habitats is also the same. Biological resource SPRs that apply to project impacts under Impact BIO-3 are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-9, and HYD-4. Biological resource mitigation measures that apply to project impacts under Impact BIO-3 is Mitigation Measure BIO-3a. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

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