CalVTP Project-Specific Analysis

Camp Tamarancho Fuel Reduction and Community Protection Project

CalVTP Project ID: 2023-13

Prepared for:

County of Marin Community Development Agency and
Marin County Fire Department

August 2023

CALVTP PROJECT-SPECIFIC ANALYSIS

Camp Tamarancho Fuel Reduction and Community Protection Project

CalVTP Project ID: 2023-13

Prepared for:

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LIST OF ABBREVIATIONS

BAAQMD	Bay Area Air Quality Management District
Board	California Board of Forestry and Fire Protection
BSA	Boy Scouts of America
CAAQS	California ambient air quality standard
Cal-IPC	California Invasive Plant Council
CalVTP	California Vegetation Treatment Program
CARI	The California Aquatic Resources Inventory
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
DPR	California Department of Pesticide Regulation
EIR	Environmental Impact Report
EPA	US Environmental Protection Agency
ESA	Federal Endangered Species Act
GHG	greenhouse gas
LRA	Local Responsibility Area
Marin Fire	Marin County Fire Department
MMRP	mitigation monitoring and reporting program
NAAQS	national ambient air quality standard
NAHC	Native American Heritage Commission
NOA	naturally occurring asbestos
NO_X	nitrous oxide
NP9E	Nonylphenol 9 Ethoxylates
NWI	National Wetlands Inventory
NWIC	Northwest Information Center
PM	particulate matter
PRC	Public Resources Code
Project	Camp Tamarancho Fuel Reduction and Community Protection Project (
PSA	Project-Specific Analysis
ROG	reactive organic gas
SENL	single-event noise levels

SOD	sudden oak death
SPRs	standard project requirements
SR	State Route
SRA	State Responsibility Area
TACs	toxic air contaminants
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
VMT	vehicle miles traveled
WCA	Wetland Conservation Area

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1 INTRODUCTION

1.1 PROJECT OVERVIEW AND DOCUMENT PURPOSE

The California Board of Forestry and Fire Protection (Board) certified the Program Environmental Impact Report (Program EIR) for the California Vegetation Treatment Program (CalVTP) in December 2019. The Program EIR evaluates the potential environmental effects of implementing vegetation treatments throughout much of the State Responsibility Area (SRA) and selected portions of the Local Responsibility Area (LRA) in California. This document is a Project-Specific Analysis (PSA). The PSA process was designed during Program EIR preparation for use by many state, special district, regional, 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).

1.1.1 Project Overview

The Camp Tamarancho Fuel Reduction and Community Protection Project (project) consists of vegetation treatments within the Camp Tamarancho property, located in Marin County (Figure 1-1). The CalVTP treatments would occur on approximately 410 acres of private property owned and managed by the Boy Scouts of America (BSA) and is located directly northwest of the Town of Fairfax. The proposed project is within the CalVTP treatable landscape. The Marin County Fire Department (Marin Fire) would implement the project. The objectives of the proposed project are focused on improving critical evacuation routes and access and ingress for emergency responders; reducing wildfire intensity and rates of fuel ignitability by decreasing fuel loads; and protecting all facility and camping areas.

As discussed further in Section 2.1, "Proposed Treatments," the proposed treatment types are fuel break and ecological restoration. The proposed treatment activities would consist of prescribed burning, manual and mechanical treatments, and herbicide application. Ongoing maintenance of initial treatments would involve the same vegetation treatment types and activities used in the initial treatment, as funding allows. The treatment types and activities included in the proposed project are consistent with those evaluated in the CalVTP.

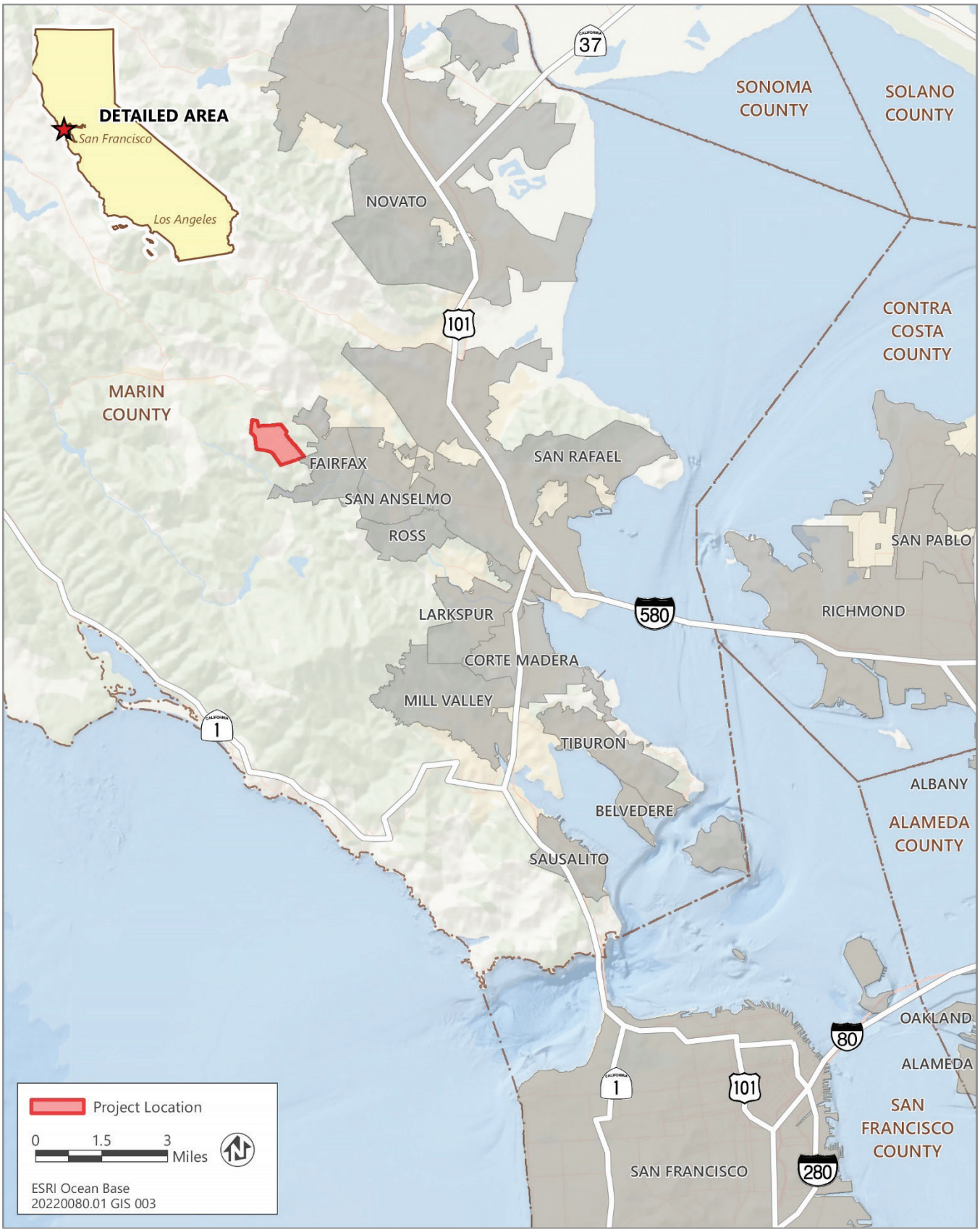
1.1.2 Agency Roles

For the purposes of the CalVTP Program EIR and this PSA, a Project Proponent is a public agency that provides funding for vegetation treatment or has land ownership, land management, or other regulatory responsibility in the treatable landscape and is seeking to fund, authorize, or implement vegetation treatments consistent with the CalVTP. This document is being prepared for the County of Marin and Marin Fire to comply with CEQA for the implementation of vegetation treatments that require a discretionary action by a state or local agency.

As defined by the CalVTP process, the County of Marin is the Project Proponent, and Marin Fire is a project partner. For purposes of CEQA compliance, Marin Fire serves as the responsible agency that must approve the project. Marin Fire is facilitating the implementation of treatments on 410 acres of private property owned and managed by BSA.

1.1.3 Purpose of the PSA

This document serves as a PSA to evaluate whether the proposed treatments would be within the scope of the CalVTP Program EIR. Among the 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). All 410 acres of the project area are within the CalVTP treatable landscape. Therefore, for the purposes of this PSA, the entirety of the project area where vegetation treatments would be implemented is within the geographic scope of the Program EIR.



Source: adapted by Ascent in 2023.

Figure 1-1 Regional Location Map

As substantiated in the following sections of this PSA, the proposed project is entirely within the scope of the CalVTP. As documented in Section 2, "Treatment Description" of this PSA, the proposed treatment types and treatment activities are consistent with the CalVTP. In addition to these criteria, a proposed vegetation treatment project may be approved using a finding that the project is within the scope of the Program EIR for its CEQA compliance if its environmental effects are covered in the Program EIR, consistent with CEQA Guidelines Section 15168(c)(2). Section 4 presents an evaluation that demonstrates the proposed project's impacts are covered by the Program EIR.

The project-specific mitigation monitoring and reporting program (MMRP), which identifies the CalVTP standard project requirements (SPRs) and mitigation measures applicable to the proposed project, is presented in Attachment A. The SPRs identified in the MMRP have been incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation.

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2 PROJECT DESCRIPTION

The Camp Tamarancho Fuel Reduction and Community Protection Project (project) consists of vegetation treatments within the Camp Tamarancho property, located in Marin County. The CalVTP treatments would occur on approximately 410 acres of private property owned and managed by the Boy Scouts of America (BSA) located directly northwest of the Town of Fairfax. The Marin County Fire Department (Marin Fire) would implement the project. The objectives of the proposed project are improving critical evacuation routes and access and ingress for emergency responders; reducing wildfire intensity and rates of fuel ignitability by decreasing fuel loads; and protecting all facility and camping areas.

2.1 PROPOSED TREATMENTS

The proposed project involves two CalVTP vegetation treatment types: fuel break and ecological restoration. Treatment activities are those specific actions that are applied singularly or in combination to achieve the desired condition within each treatment type. The CalVTP vegetation treatment activities proposed to implement each of these treatment types are mechanical treatments, manual treatments, prescribed fire treatments, and herbicide application. The treatment types and treatment activities proposed within the project are described below.

2.1.1 Treatment Types

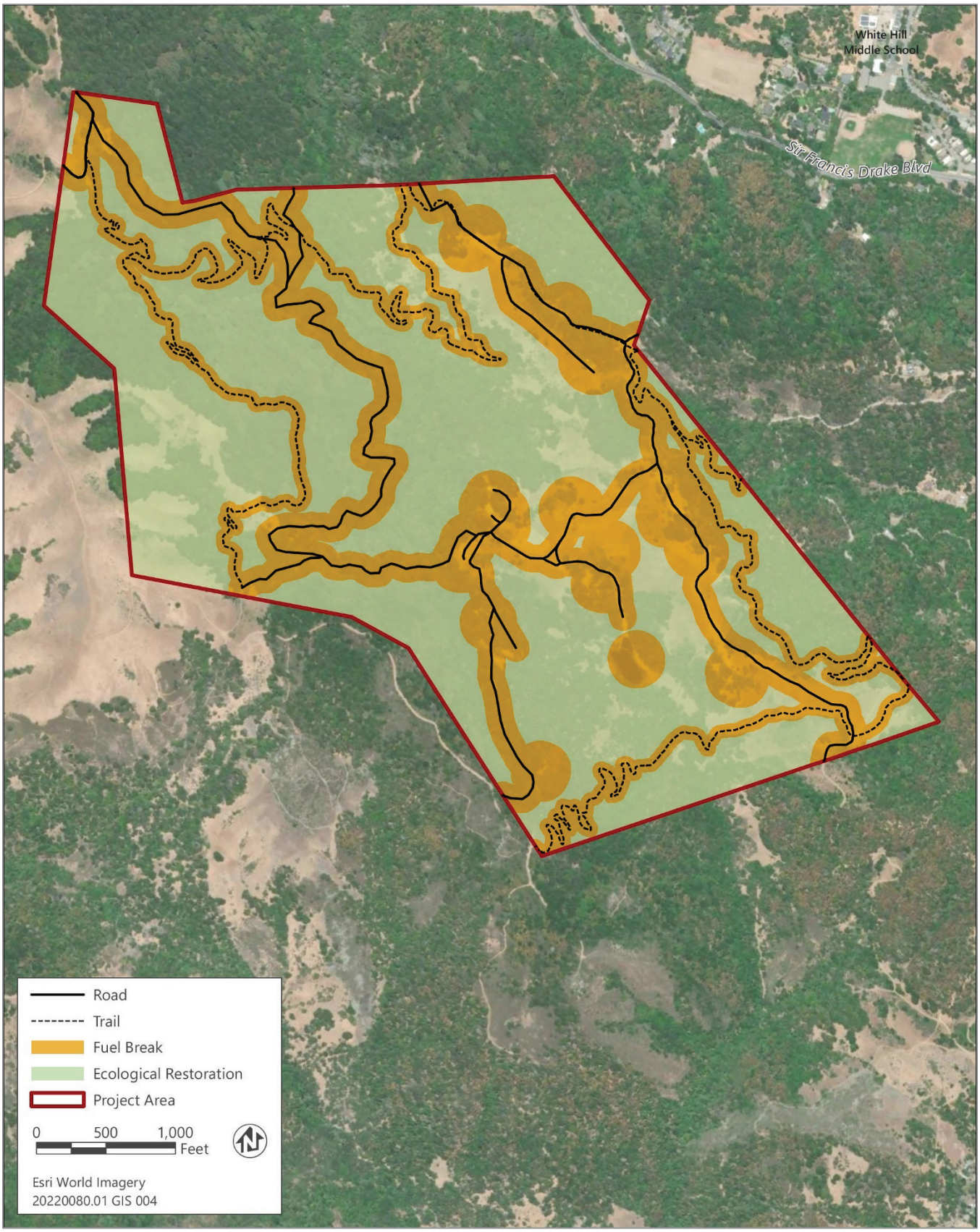
Proposed treatment types consist of fuel breaks and ecological restoration. Each treatment type is described in more detail below and is consistent with the treatment types described in the CalVTP. Refer to Figures 1-1 and 2-1 for the location of each treatment type within the project area. The project area is the entire area within which treatments would be implemented. The area where treatment would be actively implemented at one time (e.g., day or month) is referred to in this document as a treatment area(s). Table 2-1 provides the acres of treatment in the project area and a summary of treatments.

FUEL BREAKS

In strategic locations, fuel breaks create zones of vegetation removal, often in a linear layout, that reduce wildfire risk and support fire suppression by providing emergency responders with a staging area or access to a remote landscape for fire control actions. Fuel breaks can also provide safe emergency egress during wildfires. This treatment type could be used in combination with other treatment types to increase its effectiveness in achieving applicable objectives of the CalVTP. Fuel break treatment would occur approximately 100 feet from structures and existing roads (paved and unpaved) and 50 feet from established trails. Defensible space requirements, as described in the Public Resources Code (PRC) Section 4291, may be implemented as part of this project or may be implemented separately from this project using appropriate CEQA compliance approaches, such as a Class 4 Categorical Exemption.

Two types of fuel break treatments would be implemented: non-shaded and shaded.

- Non-shaded fuel breaks are typically created where there is a natural change in vegetation type, such as from forest or shrubland to grassland, and all vegetation is removed from the fuel breaks. Non-shaded fuel breaks in shrub dominated habitat are designed to create a mosaic of fuel composition near existing infrastructure or in a naturally dense plant community.
- Shaded fuel breaks are used in forest settings, where the tree canopy is thinned to reduce the potential for a crown fire to move through the canopy; however, larger trees would remain. The shade of the retained canopy also helps reduce the potential for rapid re-growth of shrubs and sprouting hardwoods and can reduce rill and gully erosion. The shaded fuel breaks also provide important control lines for prescribed fire activities.



Source: Adapted by Ascent in 2023.

Figure 2-1 Treatment Map

ECOLOGICAL RESTORATION

Ecological restoration would focus on restoring ecosystem processes, conditions, and resiliency by moderating uncharacteristic wildland fuel conditions to reflect historic vegetative composition, structure, and habitat values. Ecological restoration would involve vegetation treatments that seek to restore historic landscape level processes such as fire to promote ecological resilience and improve habitat quality. Restoration may include habitat remediation where nonnative, invasive plants have spread, and excess fuel buildup has occurred.

Ecological restoration treatments would seek to protect and restore native ecological function, including returning fire to a more historical and natural role on the landscape to improve native habitats, recreate old growth characteristics with healthy forests and woodland (i.e., more open tree dominated habitat) conditions, and create a natural landscape more resilient to wildfires. The thinning of overly dense vegetation can mimic the effects of wildfire and increase sunlight with more canopy openings, eradicate invasive species, and reduce competition among healthy vegetation, which may result in both immediate and long-term benefits to special-status plants. The proposed treatments seek to improve overall forest, woodland, and grassland health and provide watershed benefits by supporting native habitat structure that is resilient to future natural disturbances and climate scenarios. A healthy, functioning natural landscape would help reduce the impacts of climate change by sequestering carbon, protecting aquatic resources and water quality, and providing important habitat for native wildlife. There is a potential long-term benefit to special-status species from implementation of ecological restoration treatments because they are intended to increase the resilience of the vegetation communities to wildfires that could eliminate special-status wildlife and plant individuals and populations. A healthy natural landscape also can reduce the wildfire risk to the surrounding BSA facilities and communities and protect the rich cultural landscape. The following paragraphs describe how ecological restoration treatments will be applied in each of the land cover types within the project area.

Mixed Conifer Treatments

Treatments in mixed conifer forests would involve manual and mechanical treatments with the use of hand tools, hand-operated power tools, and masticators (mulchers). Where access allows, mechanical chipping (using trailered and tracked chippers) of material onsite may occur. The objectives of treatment would be to reduce ground fuel load and overall tons of fuel per acre, reduce ladder fuel by targeting lower and mid-canopy trees, and reduce overall stand density. Select live trees up to 16 inches dbh will be removed to achieve a reduction in overall stand density and to promote the increased health of larger overstory trees. Manual removal of mid-canopy trees will minimize horizontal and vertical continuity and favor the growth of larger adjacent trees. In addition, select mid-canopy and overstory Douglas fir trees would be removed in areas where mixed conifer forests transition to mixed hardwood, shrubland, and grassland habitats to prevent conversion of those non-conifer dominated habitats to Douglas fir dominated habitat. Select mid-canopy and overstory Douglas fir removal would be implemented within approximately 300 feet (Nunez and Paritsis 2018) of mixed hardwood, shrubland, and grassland habitats to reduce seed sources that facilitate Douglas fir encroachment into non-conifer dominated habitat types without lowering the tree cover within these portions of mixed conifer stands below 20 percent to meet the definition of tree dominated habitats in the Manual of California Vegetation (Sawyer et al. 2009).

Mixed Hardwood Treatments

Treatments in mixed hardwood forests would involve manual and mechanical treatments with the use of hand tools, hand-operated power tools, and masticators. Where access allows, mechanical chipping of material onsite may occur. The objectives of treatment would be to reduce fuel loads by removing dead and downed fuels, dead, dying, and diseased coast live oak trees that have been impacted by sudden oak death (SOD), reduce ladder fuel by targeting nonnative plant species, and reducing the density of established Douglas fir that are encroaching due to the exclusion of wildfire from Camp Tamarancho and the surrounding landscape. In locations where Douglas fir are converting hardwood forest to conifer forest through shading, select live Douglas fir trees will be removed when safely feasible.

Shrubland Treatments

Treatments in shrublands would involve manual and mechanical treatments. Manual treatment would involve the use of hand tools and hand-operated power tools. Mechanical treatment would involve the utilization of masticators

where slope/access allows, and chipping material onsite based on access. The objectives of treatment would be to reduce fuel load by targeted removal of nonnative plant species (e.g., French broom [*Genista monspessulana*]) and encroaching Douglas fir.

Grassland Treatments

Treatments in grasslands would involve manual and mechanical treatments. Manual treatment would involve the use of hand tools and hand-operated power tools. Mechanical treatment would involve the utilization of mowers where slope/access allows, and chipping material onsite based on access. The objectives of treatment would be to promote and protect existing grassland through the removal of nonnative plant species and encroaching Douglas fir.

2.1.2 Treatment Activities

The proposed vegetation treatment activities are prescribed burning, mechanical treatment, manual treatment, and herbicide application (ground-based methods). Each of these treatment activities is described in more detail below and is consistent with the treatment activities described in the CalVTP. All treatment activities could occur throughout the entire project area. Table 2-1 provides a summary of the treatments. Treatment activities could occur during any time of year, although the nesting bird season would be avoided when feasible. Although there is the potential for prescribed burning to occur during nighttime and weekend hours, all treatment activities using equipment would be limited to daytime hours.

PRESCRIBED BURNING

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

- **Pile burning[1]:** Biomass from manual and mechanical treatment would be piled using equipment (e.g., skid-steers and excavators) or hand crews and burned appropriately. Pile burning would occur in an understory or in areas with little to no live overstory. Prescribed burning of piles of vegetative materials to reduce fuel and remove biomass following treatments will be utilized where chipper and equipment access is limited due to slope and proximity to existing roads.
- **Broadcast burning:** Broadcast burning would be used to promote forest health and native flora and reduce biomass and fuel loading in grassland, woodland, and forest vegetation. Broadcast burning would consist of low intensity ground fire used to reduce 1- and 10-hour fuels. Pretreatment of vegetation using mechanical and manual activities or herbicide application would occur in areas proposed for broadcast burning. The goal is to conduct a low-intensity burn that burns only targeted ground and litter fuels, creating a mosaic of existing habitat types. Prescribed burning in grassland areas would help control nonnative plant species and reduce fine fuels. These treatments would also promote a more natural, sustainable, and wildfire-resilient native landscape.

When feasible, biomass from mechanical and manual treatments would be converted to usable wood ash and biochar using **air curtain burning[2]**.An air curtain burner, for example a "BurnBoss," would be used. Air curtain burners range in size. The BurnBoss is a small, highly mobile, self-contained kiln that can be towed with a standard heavy-duty pickup truck. Some larger units can be transported using a trailer. A small EPA Tier 4 diesel engine, which consumes one-third of a gallon of diesel fuel per hour at full power, would power these systems. Biomass would be carried from the work sites to the air curtain burner and hand fed into it. Once the burning is complete, wood ash and biochar would be scattered onto the forest floor to turn back into the soil once cooled. Air curtain burners would be set up on existing roadways and/or landings that meet the qualifications for their use (i.e., level, previously disturbed areas

[1] Pile burning is a mechanism to consume biomass; the impact analysis in the CalVTP Program EIR considers pile burning under prescribed burning to account for similar impacts as broadcast burning, which is also considered under prescribed burning. Similarly, mastication and chipping are biomass processing methods that are have similar impacts to and are considered under mechanical treatments.

[2] Air curtain burners have been designed to consume biomass quickly and efficiently with a substantial reduction in smoke compared to pile burning (refer to additional information in Section 4.3, "Air Quality," and Section 4.7, "Greenhouse Gas Emissions"). Mitigation Measure GHG-2 in the CalVTP Program EIR requires Project Proponents to implement feasible methods, including the use of air curtain burners, to reduce the greenhouse gas (GHG) emissions from pile burning.

that are devoid of vegetation). Multiple air curtain burners could be operated simultaneously as part of the proposed project. A burner requires a crew of two to three people per burner and operating multiple burners next to each other would not necessarily require additional people.

Marin Fire would implement broadcast burning to partially remove understory and groundcover vegetation during periods when weather and vegetation conditions allow the desired fire intensity to meet treatment objectives and do not create fire behavior jeopardizing control of the broadcast burn (e.g., relatively high humidity and high fuel moisture content). Broadcast burning may require the construction of new control lines or enhancement of existing control lines using manual or mechanical treatments (e.g., masticator, chainsaws/hand tools).

Pile burning and broadcast burning would require up to four crews of between 12 and 14 crew members each, depending on the size and site characteristics of the burn unit. Typically, each burn would last one day. Equipment used would include fire engines and water tankers for fire suppression. All burning would occur in accordance with regulations regarding the use of prescribed burning. This would include the preparation and implementation of a burn plan that includes a smoke management plan when required.

MECHANICAL VEGETATION TREATMENT

Mechanical treatments would involve masticating target vegetation, mowing in grassland habitat, and chipping biomass from manual and mechanical treatment activities. Equipment used for mechanical treatment activities would include chippers, mowers, and masticators. Up to four crews may operate at the same time on the property. Typically, treatments would require several days to several months to complete. Masticators may be used on slopes less than 40 percent throughout mixed hardwood and mixed conifer forest types throughout the property. Masticators may be used on slopes greater than 40 percent where target vegetation can be reached by equipment from existing roads.

Mastication would occur in shrubland where slope and access allow to reduce fire fuel loads (e.g., nonnative, invasive species) and encroaching Douglas fir in targeted areas. The biomass would be disposed of through the process of mastication, which mulches the vegetation. Chipping or prescribed burning may also be used to dispose of biomass. Mechanical treatments would include:

- Removal of target live woody shrubs, dead, dying, and diseased trees, and select live trees up to 16 inches dbh;
- Mastication and chipping of understory ladder fuels and shrubs, resulting in mulch no more than 6 inches deep with an average of 3-4 inches, and leaving root systems intact for resprouting;
- mow herbaceous and live small woody vegetation within grasslands;
- retain a minimum of five to 10 percent herbaceous understory vegetation per acre in a mosaic pattern in most areas;
- remove limbs of large trees up to 8-12 feet high but never more than 50 percent of live crown;
- removal of trees greater than 16 inches dbh if they are a public safety hazard; dead or dying; irreversibly diseased; substantially damaged; an invasive exotic species; or are Douglas fir that are encroaching into other habitat types or within 300 feet of hardwood, shrub, and grassland and a seed source for encroachment;
- masticate standing dead trees/shrubs and downed woody debris up to 16 inches in diameter, while retaining at least 1 to 2 snags per acre (over 12 inches dbh that are away from existing structures and roads);
- retain one to four logs greater than 12 inches in diameter and 15 feet in length per acre;
- retain woodrat nests
- maintain at least 35 percent relative final density of chaparral vegetation;
- retain a mosaic of native shrubs at a spacing of 75–100 feet between crowns, where the combined crown for each clump is approximately 15–25 feet wide;
- to the extent feasible, retain all healthy coast live oak, pacific madrone, and other desirable species; and
- target Douglas fir, for thinning.

MANUAL VEGETATION TREATMENT

To implement manual treatments, up to 4 crews of approximately 12 to 16 members each, would use hand tools and hand-operated power tools, including chainsaws, hand saws, brush cutters, and loppers, to cut, clear, and prune trees, herbaceous vegetation, and woody shrubs. Typically, treatments would require several days to several months to complete, depending on the treatment size, steepness of terrain, and type and density of vegetation. Trees would be removed and pruned to lift the canopy, and woody shrubs would be cut and cleared.

Understory debris would be chipped and scattered on-site within the treated areas, following best management practices for reducing the spread of pests, disease, and invasive species. In some areas where chipper access is limited, cut vegetation would be piled for later pile burning or broadcast burning. The same general guidelines for tree and vegetation removal and retention would be followed as described above for mechanical treatments.

HERBICIDE

Herbicides would be used sparingly to control vegetation that threatens the native biodiversity or increases wildfire hazards. Invasive plant and noxious weed infestations may be treated in a targeted manner using ground-level application to prevent their establishment or expansion, and would predominantly occur along existing roads and high-trafficked locations throughout the property. Consistent with the definitions applied in the CalVTP, invasive species are those plant species identified as invasive by the California Invasive Plant Council (Cal-IPC) or defined as noxious weeds under California law by the California Department of Food and Agriculture. Herbicide application methods would target the removal and treatment of existing large populations of Scotch and French broom throughout the Camp Tamarancho property to reduce fuel load and associated fire hazards.

The following herbicides, which are consistent with those considered for use in the CalVTP, may be applied:

- 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);
- Nonylphenol 9 Ethoxylates (NP9E);
- Cleantraxx (penoxsulam & oxyfluorfen);
- Velpar (hexazinone); and
- Indaziflam.

Only ground-level application would occur; no aerial spraying of herbicides would take place. The method that is least likely to affect nontargeted vegetation would be used at any given site. Several herbicide application methods are available for use by on-the-ground personnel, including painting herbicide on stems and using a backpack sprayer and hand application. For larger treatment areas, herbicide treatments would typically use a 12 to 14-person crew and an all-terrain vehicle or utility vehicle for crew support and logistics. Treatment would involve removing invasive plant species (e.g., Scotch and French broom) and noxious weeds through herbicide application. Herbicide application would comply with the US Environmental Protection Agency (EPA) label directions, as well as California EPA and California Department of Pesticide Regulation label standards. All herbicide applications would be performed by certified and licensed pesticide applicators, using appropriate personal protective equipment, in accordance with all local, state, and federal regulations.

BIOMASS DISPOSAL

Biomass created during the proposed vegetation treatments described above would be disposed by the following means:

- masticating (mulching) vegetative debris and placing it on the ground concurrently with vegetation removal (approximately 25 percent of biomass), and the biomass remaining after mastication would be no more than 6 inches deep with an average of 3 to 4 inches;
- chipping (approximately 35 percent of biomass) materials within 100 feet on either side of a road, and chipped biomass would be spread over treated areas and would not exceed 6 inches in depth with an average of 3 to 4 inches;
- pile burning or air curtain burning (approximately 20 percent of biomass), which may be used to dispose of cut, chipped, and masticated materials, and if wood ash and biochar are generated by air curtain burning, they would be applied in a thin layer on the soil near where the air curtain burner is stationed; or
- broadcast burning (approximately 20 percent of biomass).

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

Table 2-1 Proposed CalVTP Treatments

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activity	Treatment Size (acres)	Equipment used for Treatments	Timing of CalVTP Treatments
Fuel Break	Create zones of vegetation removal to reduce wildfire risk and support fire suppression	Manual treatment, Mechanical treatment, Herbicide application	244	hand tools, hand-operated power tools (e.g., chainsaw), masticator, chipper)	Initial Treatments Year-round 2023 – 2025 Maintenance Treatments every 3 to 5 years (1 to 2 years in grasslands)
Ecological Restoration	Protect and restore native ecological function	Manual treatment, Mechanical treatment, Prescribed burning, Herbicide application	166	hand tools, hand-operated power tools (e.g., chainsaw), masticator, chipper, mower)	Initial Treatments Year-round 2023 – 2025 Maintenance Treatments every 3 to 5 years (1 to 2 years in grasslands)
Total Acres			410		

Source: Data provided by Marin County Fire Department, 2022

2.2 TREATMENT MAINTENANCE

Maintenance of desired vegetation conditions in the areas initially treated for the proposed project would follow Camp Tamarancho's existing general land management practices and would be based on real-time monitoring of site conditions. In forested, shrub-dominated, and woodland areas, retreatment is anticipated to occur every 3–5 years. In grasslands, retreatment is anticipated to occur every 1-2 years. Treatment maintenance methods would involve the same vegetation treatment activities used in the original treatment; however, Marin Fire anticipates the use of more hand crews than mechanical equipment in comparison to initial treatments in forested areas throughout the property. Treatment maintenance would potentially be implemented year-round, given avoidance of impacts to sensitive resources. Periodic treatment maintenance would occur as needed, determined by qualified staff who would

monitor vegetation growth conditions on the property. Maintenance intervals may differ from the above stated depending on the re-establishment rate of understory species and would be triggered by dense, continuous understory and ladder fuels.

Prior to implementing a maintenance treatment, Marin Fire will verify that the expected site conditions as described in the PSA are present in the project area. As time passes, the continued relevance of the PSA will be considered by the Project Proponent in light of potentially changed conditions or circumstances. Where the Project Proponent determines that the PSA is no longer sufficiently accurate to determine significance of environmental impacts, Marin Fire in conjunction with the Marin County Environmental Coordinator will determine whether an updated PSA, a new PSA, or other environmental analysis is warranted.

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

3 ENVIRONMENTAL CHECKLIST

VEGETATION TREATMENT PROJECT INFORMATION

1. **Project Title:** The Camp Tamarancho Fuel Reduction and Community Protection Project
2. **CalVTP I.D. Number:** 2023-13
3. **Project Proponent's Name and Address:** County of Marin, Community Development Agency
   3501 Civic Center Dr STE 308
   San Rafael, CA 94903
4. **Contact Person Information and Phone Number:** Tammy Taylor, Senior Planner
   415.473.7873
   Ttaylor@marincounty.org
5. **Project Partner's Name and Address:** Marin County Fire Department (Marin Fire)
   33 Castle Rock Avenue
   Woodacre, CA 94973
6. **Contact Person Information and Phone Number:** Jordan Reeser, Battalion Chief
   415.473.6566
   Jreeser@marincounty.org
7. **Project Location:** The project is located on private Camp Tamarancho property directly northwest of the Town of Fairfax in Marin County. The center point is located at GPS 37.994318, -122.616749
8. **Total Area to Be Treated (acres)** 410 acres
9. **Description of Project**: Treatments would involve manual treatments, mechanical treatments, prescribed burning, and herbicide application. See Chapter 2, "Treatment Description for additional details.

   a. Initial Treatment
   Initial treatments would include fuel break and ecological restoration treatments involving prescribed burning, mechanical treatments, manual treatments, and herbicide application. See Chapter 2, "Project Description," for additional details.

   Treatment Types

   ☐ Wildland-Urban Interface Fuel Reduction

   ☒ Fuel Break

   ☒ Ecological Restoration

   Treatment Activities

   ☒ Prescribed Burning (Broadcast), up to 410 acres

   ☒ Prescribed Burning (Pile Burning), up to 410 acres

   ☒ Mechanical Treatment, up to 410 acres

   ☒ Manual Treatment, up to 410 acres

   ☐ Prescribed Herbivory, _____ acres

   ☒ Herbicide Application, up to 410 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

b. Treatment Maintenance

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

Treatment Types

☐ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast), up to 410 acres

☒ Prescribed Burning (Pile Burning), up to 410 acres

☒ Mechanical Treatment, up to 410 acres

☒ Manual Treatment, up to 410 acres

☐ Prescribed Herbivory, _____ acres

☒ Herbicide Application, up to 410 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA for Treatment Maintenance

See "Treatment Maintenance" above.

10. Regional Setting and Surrounding Land Uses:

The project would occur on private Camp Tamarancho property in Marin County. Camp Tamarancho is located approximately two miles uphill from Sir Francis Drake Blvd outside the Town of Fairfax village. Camp Tamarancho has over 410 acres of grassy meadows, oak- and madrone-covered knolls, and redwood-forest canyons along Fairfax Ridge with views of the North Bay stretching from Mount Tamalpais to Mount. Diablo.

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

Smoke management plans would be prepared for the Bay Area Air Quality Management District, as required.

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

Pesticide application permit from Marin County Agricultural Commissioner

Coastal Act Compliance

☒ The proposed project is NOT within the Coastal Zone

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

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

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

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

Pursuant to SPR CUL-2, County staff sent outreach letters to Native American contacts on February 15, 2023, which included the Federated Indians of Graton Rancheria, the Coast Miwok Tribal Council of Marin and the Ione Band of Miwok Indians. No responses were received from any Native American tribes as of May 24, 2023. Therefore, Tribal consultation was closed.

DETERMINATION

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

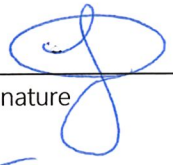
☒ I find that all of the effects of the proposed project (a) have been covered in the CalVTP Program EIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP Program EIR will be implemented. The proposed project is, therefore, **WITHIN THE SCOPE** of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

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



Signature

10/4/23

Date

Jason Weber

Printed Name

Fire Chief

Title

Marin County Fire Dept.

Agency

4 PROJECT-SPECIFIC ANALYSIS

4.1 AESTHETICS AND VISUAL RESOURCES

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

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

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

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

Discussion

IMPACT AES-1

Initial and maintenance treatments would be implemented using prescribed burning, manual and mechanical treatments, and targeted application of herbicides. The potential for these treatment activities to result in short-term degradation of the visual character of the project area was examined in the Program EIR. The nearest eligible state scenic highway to the project area is State Route (SR) 1, approximately 5 miles west of the project area (Caltrans 2023). The project area is not visible from SR 1 due to distance and topography. The proposed treatments would occur on private lands owned and managed by the BSA. Camp Tamarancho is not accessible to the public unless a permit is obtained to visit. However, public viewpoints of the proposed treatments may be visible from public recreational areas, White Hill Preserve to the north and Cascade Canyon Preserve to the south, both of which are part of the Marin County Open Space District Preserve. Although there are recreational areas near the proposed project area, visibility of treatments would be limited due to distance and topography. The visibility of treatment implementation would be temporary and would not dominate a view or block any views from scenic vistas. Smoke from prescribed burning could be temporarily visible from public recreational viewpoints and visitors of Camp Tamarancho for a short period of time. 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. SPRs applicable to the proposed treatments are AD-4, AES-2, AQ-2, AQ-3, and REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AES-2

Initial and maintenance treatments would include the ecological restoration and fuel break (shaded and non-shaded) 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. Viewpoints within and near the project area from which treatments could be visible include visitors permitted on Camp Tamarancho and recreationists from White Hill Preserve and Cascade Canyon Preserve. There would be no degradation of a scenic vista or damage to scenic resources in a state scenic highway. The long-term visual character and quality of public views after implementation of the proposed ecological restoration and shaded fuel break treatments would remain consistent with the current natural, vegetated landscape and would not constitute a substantial adverse change or degrade the current visual character of the landscape. The potential for these proposed treatment types to result in long-term degradation of the visual character of an area was examined in the Program EIR. The potential for the project to result in long-term substantial degradation of the visual character of the project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR. SPRs applicable to the proposed treatments are AES-1 and AES-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AES-3

Initial and maintenance treatments would include the ecological restoration and fuel break (shaded and non-shaded) 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. The potential for this treatment type to result in long-term degradation of the visual character of an area was examined in the Program EIR and found to be significant and unavoidable after the application of all feasible mitigation measures because it may be infeasible to relocate a non-shaded fuel break to avoid public visibility. Public viewpoints of the project area include recreation areas (e.g., White Hill Preserve and Cascade Canyon Preserve) and non-shaded fuel breaks could be visible from public viewpoints. The potential for the project to result in substantial long-term degradation of the visual character of the project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR. No

SPRs are applicable to this impact; however, Mitigation Measure AES-3 would apply to this treatment to minimize visual impacts, if feasible, from any heavily used scenic vistas, public trails, recreation areas, and state scenic highways with lengthy views (i.e., longer than a few seconds) of non-shaded fuel breaks. While implementation of Mitigation Measure AES-3 would substantially reduce the potential for substantial long-term degradation of visual character, as noted in the Program EIR, the amount of the reduction would be uncertain; therefore, the potential remains for substantial long-term degradation of visual character. For purposes of CEQA compliance, this impact is considered significant and unavoidable. This determination is consistent with the Program EIR and would not constitute a new or substantially more severe significant impact than what was covered in the Program EIR.

NEW AESTHETIC AND VISUAL RESOURCE IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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 3.3.1, "Environmental Setting," and Section 3.3.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to aesthetics and visual resources would occur that is not covered in the Program EIR.

4.2 AGRICULTURE AND FORESTRY RESOURCES

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

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

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

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

Discussion

IMPACT AG-1

Vegetation treatment activities implemented within the project area would include manual, mechanical, prescribed burning, and herbicide treatments to conduct ecological restoration and fuel break treatment types. Ecological restoration treatment would focus on removing select live trees up to 16 inches dbh in mixed conifer forests and removing select live Douglas-fir in mixed hardwood forests within 200 feet of hardwood, shrub, and grassland and that provide a seed source for encroachment into neighboring non-conifer dominated habitats, as well as larger dead/diseased trees from overstocked forest units to establish mature trees and a healthy forest structure, improve wildlife habitat, and minimize conditions that could lead to catastrophic wildfire and forest type conversion. The creation of shaded fuel breaks would involve the thinning of the tree canopies in forested areas by removing live trees up to 16 inches dbh and larger dead/diseased trees to reduce fuel continuity and provide for ingress/egress and staging for firefighting, while also maintaining the majority of the overstory canopy. The potential for these treatment types and treatment activities to result in the loss of forestland or conversion of forest land to nonforest use was examined in the Program EIR. Consistent with the Program EIR, the vegetation remaining after treatments would meet the definition of forest land as defined in Public Resources Code Section 12220(g), which defines "forest land" as land that can support 10 percent native tree cover of any species under natural conditions. Non-shaded fuel breaks would typically be created where there is a natural change in vegetation type, such as from forest or shrubland to grassland, and would not convert forest land to nonforest uses. Therefore, the potential for the project to result in the

loss or conversion of forest land is within the scope of the Program EIR. No SPRs are applicable to this impact. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AGRICULTURE AND FORESTRY RESOURCE IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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 3.3.1, "Environmental Setting," and Section 3.3.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to agriculture and forestry resources would occur that is not covered in the Program EIR.

4.3 AIR QUALITY

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is this Impact Within the Scope of the Program EIR?
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	PSU	Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	Yes	AD-4 AQ-2 through AQ-6	AQ-1	PSU	No	Yes
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	LTS	Impact AQ-2, pp. 3.4-33 – 3.4-34; Appendix AQ-1	Yes	HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	LTS	Impact AQ-3, pp. 3.4-34 – 3.4-35	Yes	AQ-4 AQ-5	NA	LTS	No	Yes
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	PSU	Impact AQ-4, pp. 3.4-35 – 3.4-37	Yes	AD-4 AQ-2 AQ-6	NA (No feasible mitigation available)	PSU	No	Yes
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5, pp. 3.4-37 – 3.4-38	Yes	HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	PSU	Impact AQ-6; pp. 3.4-38	Yes	AD-4 AQ-2 AQ-6	NA (No feasible mitigation available)	PSU	No	Yes

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

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

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

Discussion

The project area is within Marin County, which 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, would also be prepared by the implementing entity for all proposed prescribed burning treatments. The Incident Action Plan would also identify the contact personnel with BAAQMD to coordinate on-site briefings, posting notifications, and weather monitoring during burning.

IMPACT AQ-1

Use of vehicles, mechanical equipment, prescribed (broadcast) burning, prescribed (pile) burning, and the use of air curtain burning to process biomass 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 emission reduction techniques proposed in Mitigation Measure AQ-1 would be implemented to the extent feasible. However, because the treatments would be implemented by a public agency with limited funding, procuring or paying additional amounts for contractors that use equipment meeting the latest efficiency standards, including meeting the US Environmental Protection Agency's (EPA) Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology may be cost prohibitive. Carpooling would be encouraged by the 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.

When feasible, the use of an air curtain burner to process biomass is proposed pursuant to Mitigation Measure GHG-2. Evaluation of criteria air pollutant emissions from these biomass processing technologies 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 would substantially reduce reactive organic gas (ROG) and particulate matter (PM) emissions by approximately 96 percent when compared to pile burning. For nitrous oxide (NO_X), air curtains are estimated to reduce NO_X emissions by at least 73 percent (Ascent 2022). 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.

The SPRs applicable to the proposed project are AD-4, and AQ-2 through AQ-6. Despite the substantial reduction in criteria air pollutant emissions afforded by use of these biomass processing technologies, Impact AQ-1 must still be recognized as potentially significant and unavoidable because of uncertainties in the extent of their use. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-2

Use of mechanical equipment during initial and maintenance treatments could expose people, such as Camp Tamarancho visitors, as well as hikers and recreationists using nearby publicly accessible trails (e.g., Pam Blue Ridge Trail and Cascade Peak) in publicly accessible recreation areas (e.g., White Hill Preserve and Cascade Canyon Preserve) to diesel particulate matter emissions.

SPR AD-4 requires public notification in advance of prescribed burning, SPR AD-6 requires advance notification of treatment activities, SPR HAZ-9 requires advance notification of herbicide use in the vicinity of public areas, and SPR NOI-6 requires notifying sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity of any treatment activities using heavy equipment. Public noticing would be provided prior to implementation of all treatments such that that the public would be aware of nearby treatment activities that may result in diesel particulate matter emissions and can limit their potential exposure. Consistent with the Program EIR, treatment activities would be temporary and intermittent in nature (e.g., initial treatments would take several days to months to complete) and would not take place in the same locations near the same people for an extended period. Diesel particulate matter emissions from the proposed treatments are within the scope of the Program EIR because 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. 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

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. According to mapping by the United States Geological Survey, the project area is not located on soil types where NOA would be present (USGS 2011). However, there are areas underlain by serpentine soils just outside of the project area to the west (see Section 4.6, "Geology, Soils, Paleontology, and Mineral Resources"). 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 treatments would occur in these areas unless an Asbestos Dust Control Plan (if required by 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. SPRs AQ-4 and AQ-5 are applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-4

SPRs applicable to prescribed burning are designed to minimize the risk of exposing people to smoke, which includes toxic air contaminants (TACs); however, prescribed burning during initial and maintenance treatments could still result in the short-term exposure of people to TACs. Exposure to the types of TACs found in smoke could result in acute short-term health impacts such as eye and respiratory irritation and exacerbated asthma symptoms. This potential exposure risk was examined as an impact in the Program EIR and found to be potentially significant and unavoidable after the application of the SPRs and all feasible mitigation measures because unpredictable changes in weather can occur during prescribed burns resulting in short-term exposure of people to concentrations of TACs and associated levels of acute health risk with a Hazard Index greater than 1.0. When feasible, the use of specialized biomass processing technologies is proposed to reduce smoke emissions and associated TACs in comparison to pile burning. TACs 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), the proposed use of air curtain burners would reduce ROG emissions by at least 96 percent when compared to pile burning of equivalent areas. Therefore, the exposure of persons to TACs and related health risks would likely be substantially lower with the use of air curtain burners as compared with pile burning.

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 specialized biomass processing technologies. Therefore, the potential for exposure to TACs is also within the scope the Program EIR. SPRs applicable to these treatment activities are AD-4, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke emissions, as well as exposure to smoke, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially

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

IMPACT AQ-5

Use of 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, and would dissipate rapidly from the source with an increase in distance. This impact is within the scope of the Program EIR because equipment and duration of use under the proposed project are consistent with what was analyzed in the Program EIR. SPRs HAZ-1, NOI-4, and NOI-5 are applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-6

SPRs applicable to prescribed burning are designed to minimize the risk of exposing people to smoke, which includes objectionable odors; however, prescribed burning during initial and maintenance treatments could still expose people to objectionable odors. The potential to expose people to objectionable odors from prescribed burning was examined in the Program EIR. The use of specialized biomass processing technologies is proposed to reduce smoke emissions and associated odors in comparison to pile burning. When compared to pile burning, the proposed biomass processing technologies would substantially reduce smoke through filtering (i.e., air curtains).

The duration and parameters of the prescribed burn and the exposure potential are consistent with the activities addressed in the Program EIR, and smoke would be reduced with the use of specialized 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, 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 because there is no guarantee that smoke would behave as predicted, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AIR QUALITY IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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). 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. Therefore, no new impact related to air quality would occur that is not covered in the Program EIR.

4.4 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

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

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

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

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

Discussion

Consistent with SPR CUL-1, a records search of the approximately 410 acre project area was conducted at the Northwest Information Center (NWIC) in January 2023 (NWIC File No.: 22-0954). The records search revealed one previously recorded precontact archaeological site (isolated tool), and five previously recorded postcontact archaeological sites comprised of roads, trails, dams/standing structure, structure foundations, trash scatter, and military property/machinery. None of the previously recorded sites have been evaluated for California Register of Historical Resources (CRHR) eligibility.

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC). On February 15, 2023, letters and emails inviting the tribes to consult were sent to seven tribal representatives. No responses were received from any Native American tribes as of May 24, 2023. Therefore, tribal consultation was concluded. A December 20, 2022, search of NAHC's sacred lands database returned negative results.

IMPACT CUL-1

Proposed treatment activities include prescribed burning and mechanical treatments, which could damage historical resources. The NWIC records search did not reveal any built-environment features; nevertheless, structures (i.e., buildings, bridges, roadways) more than 50 years old that have not been recorded or evaluated for historical significance may be present in the project area. These structures would be identified and avoided pursuant to SPR CUL-7. The potential for these treatment activities to result in disturbance, damage, or destruction of built-environment structures that have not yet been evaluated for historical significance was examined in the Program EIR. This impact is within the scope of the Program EIR because treatment activities and the intensity of ground disturbance of the treatment project are consistent with those analyzed in the Program EIR. SPRs applicable to this impact are CUL-1, CUL-7, and CUL-8. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-2

Vegetation treatment would include mechanical treatments using heavy equipment that could churn up the surface of the ground during treatment as vegetation is removed; this may result in damage to known or previously unknown archaeological resources. The NWIC records search revealed six archaeological sites; however, none of these have been evaluated for eligibility for listing in the CRHR. Therefore, it is not known whether these sites are considered resources under CEQA. A survey will be conducted before treatment pursuant to SPR CUL-4 to identify any previously unrecorded archeological resources and identified resources will be avoided according to the provisions of SPR CUL-5.

The potential for these treatment activities to result in inadvertent discovery and subsequent damage of unique archaeological resources or subsurface historical resources during vegetation treatment was examined in the 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 Camp Tamarancho Fuel Reduction and Community Protection Project, SPRs and Mitigation Measure CUL-2 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 notes the impact as significant and unavoidable.

This impact is within the scope of the Program EIR because treatment activities and intensity of ground disturbance of the treatment project are consistent with those analyzed in the Program EIR. SPRs applicable to this impact include CUL-1 through CUL-5 and CUL-8. Mitigation Measure CUL-2 also applies to this treatment to protect any inadvertent discovery. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-3

Native American contacts in Marin County were contacted on February 15, 2023, which included the Ione Band of Miwok Indians of California; Coast Miwok Tribal Council of Marin; and Federated Indians of Graton Rancheria. No responses were received from any Native American tribes as of May 24, 2023 and tribal consultation was closed.

Vegetation treatment would include prescribed burning, manual and mechanical treatment, and the use of herbicides that could inadvertently damage or destroy tribal cultural resources if they are present in treated areas. 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 treatment types and intensity of ground disturbance and other vegetation treatment activities proposed for this treatment project are consistent with those 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. SPRs applicable to this impact include CUL-1 through CUL-6 and CUL-8. Accordingly, the attempt at tribal consultation has been summarized and project-specific guidance has been integrated into SPR CUL-6. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-4

Vegetation treatment activities would include treatments using heavy equipment; these treatments may use equipment such as masticators and tracked chippers, which could uncover human remains if present in a treated area. The NWIC records search did not reveal any known burials or sites containing human remains, but an inadvertent discovery could occur. 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 intensity of ground disturbance under the proposed project is consistent with what was analyzed in the Program EIR. In addition, consistent with the Program EIR, the proposed project would comply with California Health and Safety Code Sections 7050.5 and Public Resources Code Section 5097 in the event of a discovery. No SPRs are applicable to this impact. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCE IMPACTS

The proposed treatments are entirely within the geographic scope of the CalVTP and 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 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to archaeological, historical, or tribal cultural resources would occur that is not covered in the Program EIR.

4.5 BIOLOGICAL RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is this Impact Within the Scope of the Program EIR?
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTSM	Impact BIO-1, pp 3.6-131 – 3.6-138	Yes	AQ-3 AQ-4 BIO-1 BIO-2 BIO-7 BIO-9 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-5	BIO-1a BIO-1b BIO-1c	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTSM (all wildlife species except bumble bees) PSU (bumble bees)	Impact BIO-2, pp 3.6-138 – 3.6-184	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-10 HAZ-5 HAZ-6 HYD-1 HYD-4 HYD-5	BIO-2a BIO-2b BIO-2e	LTSM	No	Yes
Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation That Leads to Loss of Habitat Function	LTSM	Impact BIO-3, pp 3.6-186 – 3.6-191	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-6 BIO-9 HYD-4 HYD-5	BIO-3a BIO-3b BIO-3c	LTSM	No	Yes
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTSM	Impact BIO-4, pp 3.6-191 – 3.6-192	Yes	BIO-1 HYD-1 HYD-4	BIO-4	LTSM	No	Yes
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTSM	Impact BIO-5, pp 3.6-192 – 3.6-196	Yes	BIO-1 BIO-4 BIO-5 BIO-10 BIO-11 HYD-1 HYD-4	BIO-5	LTSM	No	Yes

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

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

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

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

Discussion

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of project-specific biological resources, including habitat and vegetation types, special-status plants, special-status wildlife, and sensitive habitats (e.g., sensitive natural communities, wetlands) with potential to occur in the project area. Habitat and vegetation types in the project area were identified using data from the Marin County Fine Scale Vegetation Map, which represents the state of the landscape in 2018 and adheres to the National Vegetation Classification (CNPS 2021).

Ascent conducted a reconnaissance-level survey of the project area pursuant to SPR BIO-1 on December 20, 2022. The project area is in the Northern California Coast ecoregion. The project area ranges in elevation from approximately 500 feet to 1,200 feet.

A list of special-status plant and wildlife species with potential to occur in the project area was compiled by completing a review of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the following US Geological Survey (USGS) quadrangles containing and surrounding the project area: Sears Point, Petaluma River, Petaluma, Point Reyes NE, Inverness, Double Point, San Rafael, San Quentin, Point Bonita, San Francisco North, San Geronimo, and Novato

(CNDDB 2022a; CNPS 2022), Appendix BIO-3 (Table 9a, Table 9b, and Table 19) in the CalVTP Final Program EIR (Volume II), and Calflora special-status plant occurrence data (Calflora 2022). A list of sensitive natural communities with potential to occur in the project area was compiled by consulting the list of sensitive natural communities as defined by California Department of Fish and Wildlife (CDFW) (CDFW 2022), assessing community composition during the reconnaissance surveys, completing a CNDDB search of the USGS quadrangles containing and surrounding the project area (CNDDB 2022a), and reviewing Table 3.6-16 (pages 3.6-65 through 3.6-66) in the CalVTP Final Program EIR (Volume II) for sensitive natural communities that could occur in the Northern California Coast ecoregion in the habitat types mapped in the project area.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of reconnaissance-level surveys, and habitat present within the project area as assessed during reconnaissance surveys, Ascent assembled a comprehensive list of all special-status plant and wildlife species with potential to occur in the vicinity of the proposed project. This complete species list along with genus and species names, federal and state listing status, and potential to occur within the project area is contained in Attachment B. A total of 13 special-status plant and 13 special-status wildlife species are known to occur or were determined to have the potential to occur in the project area (Attachment B). Special-status species with potential to occur in the project area are discussed in detail under Impact BIO-1 (special-status plants) and Impact BIO-2 (special-status wildlife).

IMPACT BIO-1

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on the 38 special-status plant species with suitable habitat in the project area, listed in Attachment B, if present within the project area. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments, because the same treatment activities would occur. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth, opens the tree canopy to allow more light penetration, or removes invasive competitors can be beneficial for some special-status plant populations; however, repeated treatments, within natural fire return intervals can have adverse effects on those same special-status plants. The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR.

Of the 38 special-status plant species with suitable habitat in the project area, 10 species – Sonoma 4-15 lopecurus, seaside bittercress, bristly sedge, northern meadow sedge, silverskin lichen, Koch's chord moss, minute pocket moss, Pitkin marsh lily, North Coast semaphore grass, and Point Reyes checkerbloom – are typically associated with wet areas (e.g., wetlands, wet meadows, seeps, riparian habitat, mesic areas in forest or grassland) (Attachment B). There are seven special-status plant species – western leatherwood, coast lily, marsh Microseris, Choris' popcornflower, San Francisco popcornflower, adobe sanicle, and Pacific Grove clover – that may be associated with both wet and upland areas. The remaining 21 special-status plant species – Franciscan onion, Napa false indigo, bent-flowered fiddleneck, Marin manzanita, coastal bluff morning glory, San Francisco collinsia, fragrant fritillary, Diablo helianthella, congested-headed hayfield tarplant, Santa Cruz tarplant, thin-lobed horkelia, island tube lichen, small groundcone, white-rayed pentachaeta, Oregon polemonium, Tamalpais oak, San Francisco campion, Santa Cruz microseris, Mt. Tamalpais bristly jewelflower, two-fork clover, and oval-leaved viburnum – are associated with upland habitats that are present in the project area.

Pursuant to SPR HYD-4, WLPZs ranging from 50 to 150 feet adjacent to all Class I and Class II streams and lakes (defined under Forest Practice Rules as a permanent natural body of water of any size, or an artificially impounded body of water having a surface area of at least one acre; CAL FIRE 2020) within the project area would be implemented and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV (e.g., drainage canals, irrigation ditches) streams for manual, mechanical, herbicide, and pile burning treatments, which would minimize some adverse effects on wetland and riparian species. Requirements under SPR HYD-4 requires the retention of at least 75 percent of surface cover and undisturbed area within WLPZs. However, the WLPZ is not a no-disturbance buffer as manual treatments within WLPZs are permitted and up to 25 percent of cover may be removed, per SPR HYD-4, which could potentially result in disturbance to wetlands and similar habitats suitable for special-status plants. Therefore, implementation of WLPZ restrictions under SPR HYD-4 will not be sufficient in protecting special-status plants within the WLPZ. Furthermore,

there may be additional onsite wetland, spring, and seep habitat suitable for special-status plants outside of a WLPZ as well as ponds smaller than one acre (i.e., not considered a lake under Forest Practice Rules). Wetland delineations will be conducted to determine if other aquatic habitats are located within areas where treatments will occur; where aquatic habitats are delineated, no-disturbance buffers of at least 25 feet around them will be established (per Mitigation Measure BIO-4, refer to Impact BIO-4 below).

Although these measures would avoid and minimize some adverse effects on special-status plants typically associated with wet areas, habitat potentially suitable for the seven facultative special-status plant species (i.e., associated with both wet and upland areas) and all habitat potentially suitable for the 21 upland-associated special-status plant species would not be avoided under SPR HYD-4 and Mitigation Measure BIO-4. As a result, SPR BIO-7 would be required, which would include surveying for special-status plants before implementing treatments in any habitat potentially suitable for special-status plants. If special-status plant species are observed during SPR BIO-7 surveys, Mitigation Measure BIO-1a and Mitigation Measure BIO-1b would be required, establishing no disturbance buffers around plants listed under the California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA) and other special-status plants, which would include special-status plants in both wetland and upland habitat.

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 2018, or current version). The surveys would occur prior to implementing prescribed burning, mechanical treatment, manual treatment, and herbicide treatments in any habitat potentially suitable for special-status plants. Pursuant to the CDFW protocol, surveys in grassland habitat should be conducted annually. Therefore, surveys in grassland habitat within treatment areas would be required prior to the start of treatment activities. Pursuant to SPR BIO-7, surveys would not be required for herbaceous annual, stump-sprouting, or geophyte species special-status plants not listed under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA) if the following conditions are met: treatments are carried out during the dormant season for that species or when the species has completed its annual life cycle, provided the treatment would not alter habitat in a way that would make it unsuitable for the special-status plants to reestablish following treatment, or destroy seedbanks, stumps, or roots, rhizomes, bulbs and other underground parts of special-status plants. However, this would require that treatments in habitat potentially suitable for these special-status plants be restricted to the dormant season for these species and to treatments that do not disturb below the soil surface (i.e., manual treatments, herbicide application, and prescribed burning) without prior knowledge of their presence, which may unnecessarily or infeasibly constrain treatment implementation. In this case, surveys could be conducted to determine presence or absence and, depending on the results, may provide greater flexibility in terms of the timing and types of treatments that may be implemented.

Twenty of the 38 special-status plant species that are known to or may occur within the project area are herbaceous annual species or geophytes, as indicated in Attachment B. Impacts on these species would be avoided by applying only treatment activities that do not kill or remove vegetation or disturb the soil below the surface (i.e., manual treatment, herbicide application, and prescribed burning) and carrying out these treatments only during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inch) 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 in potential habitat for these species without prior implementation of SPR BIO-7 to determine if they are present. If treatment would include activities that could kill or remove vegetation or disturb the soil below the surface (e.g., manual treatments, herbicide application, and prescribed burning) or treatments 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. The remaining 18 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, will be implemented to avoid loss of identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet will be established around the area occupied by the species within which no treatment activities will occur unless a qualified RPF or biologist determines, based on substantial evidence, that a different buffer size should be used or that the species would benefit from the proposed treatment in the occupied habitat area. Fire ignition and use of accelerants for prescribed burning would not be used in areas known to support special-status plants. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects will need to be made in consultation with CDFW and/or US Fish and Wildlife Service (USFWS), depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants, under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance measures or design alternatives to reduce impacts will be identified. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants will be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants will be maintained because treatment activities and maintenance treatments will be designed to ensure that treatments, including follow-up maintenance treatments, maintain habitat function for the special-status plant species present.

One special-status plant species – Point Reyes checkerbloom (geophyte) – has been identified previously and is known to occur within project area. If surveys pursuant to SPR BIO-7 determine this species is still present, implementation of Mitigation Measure BIO-1b would be required to avoid loss of individual plants. This would require establishing a no-disturbance buffer around the area occupied by the species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damage to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. Because this is a geophytic species, treatments may be conducted within this buffer outside of the growing season (e.g., after species has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the underground parts of special-status plants or destroy the seedbank.

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

As described in the project description, the County of Marin does not intend to implement any treatments in wetland habitats. Wetland delineations will be conducted to identify and map the extent of wetland habitats, within treatment areas. Where wetland or other aquatic habitats are delineated, no-disturbance buffers of at least 25 feet around them will be established (per Mitigation Measure BIO-4, refer to Impact BIO-4 below). Therefore, there would be no impacts on special-status plants associated with wetland habitats.

Conclusion

The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR. This impact on special-status plants is within the scope of the Program EIR, because the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. Biological resource SPRs that apply to project impacts under Impact BIO-1 are SPRs AQ-3, AQ-4, BIO-1, BIO-2, BIO-7, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, and HYD-5. Biological resource mitigation measures that apply to project impacts under Impact BIO-1 are Mitigation Measure BIO-1a and Mitigation Measure BIO-1b. If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the Project Proponent will implement Mitigation Measure BIO-1c. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-2

Initial vegetation treatments and follow-up maintenance treatments could result in direct or indirect adverse effects on special-status wildlife species and habitat suitable for these species within 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.

California Red-Legged Frog

Studies have demonstrated that California red-legged frogs remain very close to breeding habitat during the breeding season and typically do not move more than approximately 300 feet into upland habitats (Bulger et al. 2003; Fellers and Kleeman 2007). However, California red-legged frogs are known to travel through upland habitat (e.g., riparian, woodland, grassland) to move between breeding and nonbreeding sites (e.g., other ponds, deep pools in streams, moist and cool riparian understory, burrows) for access to refugia and foraging habitat, or to disperse to new breeding locations. During migration, California red-legged frogs may travel long distances from aquatic habitat, typically travel in straight lines irrespective of vegetation types, and have been documented to move over 1.7 miles between aquatic habitat sites (Bulger et al. 2003). The larger drainages and the pond within the project area may provide aquatic habitat suitable for the species, and upland habitat suitable for California red-legged frog is also present. The species was documented to occur within the Fairfax Creek drainage in 2018 (iNaturalist 2023) approximately 1.2 miles to the east of the project area. The species has also been detected to the northwest of the project area, in the Lagunitas Creek drainage (CNDDB 2022a) approximately 4.5 miles from the project area. Therefore, California red-legged frog has potential to occur throughout the project area.

Pursuant to SPR BIO-1, if it is determined that adverse effects can be clearly avoided by physically avoiding the habitat suitable for the species or the season of sensitivity, then no surveys or mitigation would be required. WLPZs of 50 to 100 feet from any Class II stream and 75 to 150 feet adjacent to the pond (Class I) would be implemented within the project area per SPR HYD-4, which prohibits heavy equipment operation, equipment fueling, placement of burn piles, and fire ignition within these buffers. In addition, treatment activities would be implemented in compliance with state water quality regulations pursuant to SPR HYD-1, which would further protect potential aquatic habitat. These prohibitions would reduce impacts on California red-legged frog; however, injury or death of California red-legged frog from mechanical treatment, manual treatment, herbicide application, and prescribed burning would not be completely avoided because the species is known to occur farther than 150 feet from aquatic habitat year-round. In addition, manual activities implemented within the WLPZ may result in adverse effects on California red-legged frogs. Therefore, per SPR BIO-1, all adverse effects cannot be clearly avoided, and SPR BIO-10 would apply. The potential for treatment activities and maintenance treatments to result in adverse effects on California red-legged frog was examined in the Program EIR.

Pursuant to SPR BIO-10, protocol surveys following the guidelines provided by USFWS (2005) would be conducted, or presence of California red-legged frog would be assumed within the project area. If California red-legged frogs are detected during SPR BIO-10 surveys, or presence is assumed within the project area, Mitigation Measure BIO-2a will be required.

Within the project area and because of the proximity to nonbreeding and potential breeding habitat, under Mitigation Measure BIO-2a, pretreatment surveys and biological monitoring for all treatment activities will be required year-round within upland and dispersal habitat. In addition, mechanical treatments will be prohibited within 30 feet of Class III wetlands; and all mechanized equipment, including track chippers, and herbicide treatments will shut down for 24 hours following any precipitation event of 0.20 inch to less than 1 inch, 48 hours following any precipitation event 1 inch to less than 2 inches, and 72 hours following any precipitation event greater or equal to 2 inches; and herbicide use during project implementation will comply with the herbicide use restrictions in the stipulated injunction issued by the Federal District Court for the Northern District of California (Mitigation Measure BIO-2a).

Habitat function for California red-legged frog will be maintained, because impacts on riparian and upland habitat for California red-legged frog will be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3). Mitigation Measure BIO-4 will further reduce potential impacts by requiring protection of state and federally protected wetlands, which include aquatic habitat for California red-legged frog (see Impact BIO-4).

Furthermore, impacts from herbicide treatments would be avoided and minimized by implementation of SPR HAZ-5, HAZ-6, and HYD-5. Furthermore, habitat function for California red-legged frogs would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover within the WLPZ). Furthermore, pursuant to SPR BIO-4, while mechanical treatment may occur within riparian habitat that is located outside of a WLPZ, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within riparian corridors on the reserve would be maintained. Within other habitat in the project area a mosaic of native shrubs at a spacing of 75–100 feet between crowns, where the combined crown for each clump is approximately 15–25 feet wide, would be retained (see Section 2.1.2, "Treatment Activities"). In addition, one to four logs greater than 12 inches in diameter and 15 feet in length and three to five snags per acre would be retained, along with a minimum of five to 10 percent herbaceous understory vegetation per acre in most areas (see Section 2.1.2, "Treatment Activities"). These retention standards would maintain habitat for California red-legged frogs.

Pursuant to Mitigation Measure BIO-2a, and because this species is listed under ESA, County of Marin must notify USFWS about its proposed measures to avoid mortality, injury, or disturbance of the species and its determination that habitat function would be maintained after treatments. For the reasons summarized above, County of Marin determined that implementation of treatments would maintain habitat function for California red-legged frog and contacted USFWS to seek technical input on this determination, as required. On July 10, 2023, County of Marin contacted Ryan Olah at USFWS describing the measures that would be taken to avoid mortality, injury, and disturbance to California red-legged frogs and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the project description or measures resulted from this notification.

Within the treatment areas, this impact of the proposed project on California red-legged frog is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Special-Status Amphibians and Reptiles

Aquatic habitats suitable for California giant salamander, foothill yellow-legged frog, and western pond turtle are found within the pond and seasonal creeks in the project area. The project area also includes upland habitat for these species. These species also are known to occur within Marin County in the general vicinity of the project area (Attachment B).

Pursuant to SPR BIO-1, if it is determined that adverse effects can be clearly avoided by physically avoiding the habitat suitable for these species or the season of sensitivity, then no surveys or mitigation would be required. WLPZs of 50 to 100 feet from any Class II stream and 75 to 150 feet adjacent to the pond (Class I) would be implemented within the treatment area per SPR HYD-4, which prohibits heavy equipment operation, equipment fueling, placement of burn piles, and fire ignition within these buffers. In addition, treatment activities would be implemented in compliance with state water quality regulations pursuant to SPR HYD-1, which would further protect potential aquatic habitat. These WLPZ prohibitions and SPR HYD-1 would reduce impacts on California giant salamander, foothill yellow-legged frog, and western pond turtle within the treatment area; however, treatment activities, including mechanical treatments, manual treatments, herbicide application, and prescribed burning conducted within upland habitat suitable for California giant salamander and foothill yellow-legged frog could result in injury or mortality of individuals. While mechanical treatments, manual treatments, and prescribed burning conducted within upland habitat for western pond turtle could also result in injury or mortality, it is not anticipated that injury or mortality of western pond turtle would result from herbicide application. Herbicide application would be conducted on foot and avoidance of nests and individuals would be likely. Implementation of SPR HYD-1 and SPR HYD-4 would reduce the likelihood of injury or death of California giant salamander, foothill yellow-legged frog, and western pond turtle; however, effects would not be completely avoided because these species are known to occur farther than 150 feet from aquatic habitat. Therefore, pursuant to SPR BIO-1, SPR BIO-10 would apply. The potential for treatment activities to result in adverse effects on special-status reptiles and amphibians was examined in the Program EIR.

Pursuant to SPR BIO-10, focused surveys for California giant salamander, foothill yellow-legged frog, western pond turtle, and western pond turtle nests would be conducted within habitat suitable for these species prior to implementation of treatment activities, if applicable. If no California giant salamander, foothill yellow-legged frog, western pond turtle, and western pond turtle nests are observed during focused surveys, then additional mitigation would not be required. If California giant salamander, foothill yellow-legged frog, and western pond turtle, or western pond turtle nests are observed during focused surveys, then Mitigation Measure BIO-2b will be implemented. Under Mitigation Measure BIO-2b, biological monitoring by a qualified biologist, RPF, or biological technician during treatment activities will be implemented to avoid injury to or mortality of individual special-status amphibians and reptiles. If the qualified biologist, RPF, or biological technician detects a special-status amphibian or reptile during treatments, treatment activities will cease until the individual has left the area or has been moved out of harm's way by the qualified biologist, RPF, or biological technician with the appropriate permits to other nearby habitat suitable for the species. If a western pond turtle nest is detected during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 50 feet including a path from the nest to the nearest aquatic habitat would be established around the nest.

Additionally, impacts on riparian and upland forested habitat for California giant salamander, foothill yellow-legged frog, and western pond turtle would be avoided or minimized through implementation of Mitigation Measure BIO-3a (see Impact BIO-3). Mitigation Measure BIO-4 will further reduce potential impacts by requiring protection of state and federally protected wetlands, which could provide aquatic habitat suitable for these species (see Impact BIO-4). Furthermore, potential adverse effects from herbicide treatments would be avoided and minimized by implementation of SPR HAZ-5, HAZ-6, and HYD-5.

Habitat function for California giant salamander, foothill yellow-legged frog, and western pond turtle would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatments within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment, retention of at least 75 percent surface cover). Furthermore, pursuant to SPR BIO-4, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within riparian corridors on the reserve would be maintained. Within other habitat in the treatment area a mosaic of native shrubs at a spacing of 75–100 feet between crowns, where the combined crown for each clump is approximately 15–25 feet wide would be retained (see Section 2.1.2, "Treatment Activities"). In addition, one to four logs greater than 12 inches diameter and 15 feet in length and one to two snags per acre would be retained, along with a minimum of five to 10 percent herbaceous understory vegetation per acre in most areas and woodrat nests when feasible (see Section 2.1.2, "Treatment Activities").

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

Northern Spotted Owl

Northern spotted owls have been documented to nest within and adjacent to the project area (CNDDB 2022b), and the dense forested habitats throughout the project area provide nesting and foraging habitat suitable for this species.

Treatment activities that include the use of heavy equipment, vehicles, or loud hand tools (e.g., chainsaws) could result in disturbance of nesting northern spotted owls in adjacent occupied habitat, if these activities occur during the sensitive portion of the nesting season (February 1 through July 31) (USFWS 2020). 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. Pursuant to SPR BIO-1 and because northern spotted owl nesting occurrences are located within and adjacent to the project area, a qualified RPF or biologist would survey for suitable nesting habitat within the project area and review northern spotted owl occurrence data in the CNDDB and review any recent survey and occurrence data for northern spotted owl in the project area that have not been made publicly available (e.g., in the CNDDB) to determine whether a documented northern spotted owl nesting occurrence is present within 0.25 mile of the treatment area. In addition, if it is not feasible to avoid disturbance, injury, or mortality of nesting and fledgling northern spotted owls by avoiding treatment activities during the sensitive season, pursuant to SPR BIO-1, then per SPR BIO-10, surveys following the USFWS *Protocol for Surveying proposed Management Activities that may*

Impact Northern Spotted Owls (USFWS 2012) and utilizing the USFWS *Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis- Coast Redwood Region* (USFWS 2019) will occur. If northern spotted owl nests are detected during surveys or documented during the CNDDB search of adjacent lands, Mitigation Measure BIO-2a would apply and potential impacts on any nest resulting from project activities including those producing loud and continuous noise would be avoided by implementing a limited operating period during the northern spotted owl nesting season (February 1 through July 31) for mechanical treatments, manual treatments, prescribed fire and herbicide application within 500 feet to 0.25 mile of the nest, or habitat where presence is assumed, depending on the noise generated by the activity. No project activities would occur within 500 feet of a nest or habitat where presence is assumed to avoid visual disturbance of northern spotted owl (USFWS 2012; USFWS 2019; USFWS 2020).

Habitat function for northern spotted owl would be maintained because treatments would not remove live trees greater than 16 inches dbh, unless the tree is a public safety hazard, dead or dying, irreversibly diseased, substantially damaged, Douglas fir that are encroaching into other habitat types or within 300 feet of hardwood, shrub, and grassland and a seed source for encroachment, or an invasive exotic species. This would result in retention of the majority of larger trees that are the most likely features to provide nesting habitat for northern spotted owl. Although snags up to 16 inches dbh would be removed, at least one to two snags per acre over 12 inches dbh would be retained. Also, retention of woodrat nests (i.e., a primary prey species of northern spotted owl) would occur during mechanical and manual treatments when feasible. Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR BIO-4), which would retain riparian habitat for foraging and nesting owls. Also, for treatments that occur within northern spotted owl habitat where northern spotted owls have been detected (pursuant to SPR BIO-10), or if surveys are not feasible, and activity centers are identified within 0.7 mile of treatment areas using the CNDDB Spotted Owl Database, Mitigation Measure BIO-2a would require retention of habitat as described in *Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis- Coast Redwood Region* (USFWS 2019).

Pursuant to Mitigation Measure BIO-2a, and because this species is listed under ESA and CESA, County of Marin must notify USFWS and CDFW about its determination that mortality, injury, or disturbance would be avoided, and habitat function would be maintained. For the reasons summarized above, County of Marin determined that implementation of treatments would maintain habitat function for northern spotted owl and contacted USFWS and CDFW to seek technical input on this determination, as required. On July 10, 2023, County of Marin contacted Ryan Olah at USFWS, and Katanja Waldner and Julie Coombes at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to northern spotted owl and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Further discussion with CDFW occurred on August 8, 2023. Refinements to the project description and measures that resulted from coordination with CDFW included a single sensitive season for all treatment types of February 1 to July 31, and other minor clarifications to text. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Special-Status Birds

Nesting and foraging habitat for saltmarsh common yellowthroat within the project area is restricted to a small amount of wetland habitat surrounding the pond, while nesting and foraging habitat for yellow warbler is found in the small areas of riparian vegetation within the project area. White-tailed kites may nest within the oak woodlands and forage in the grassland and scrub habitats within the project area.

Per SPR BIO-1, if it is determined that adverse effects on nesting special-status birds can be clearly avoided by physically avoiding habitat suitable for the species or conducting treatments outside of the season of sensitivity (i.e., nesting bird season), then no survey or mitigation would be required. Initial and maintenance treatments including mechanical treatments, manual treatments, prescribed burning, and herbicide application if conducted during the nesting bird season (February 1 through August 31) may result in the disturbance of active nests of saltmarsh common yellowthroat, and yellow warbler if they occur within or adjacent to nesting habitat for these species. Similarly, mechanical treatments, manual treatments, prescribed burning, and herbicide application conducted during the nesting season for white-tailed kite (February 1 through October 31) may disturb white-tailed kite nests if they occur within or adjacent to nesting habitat suitable for the species (oak woodlands). Nest disturbance as a result of

auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel), may result in nest abandonment and the loss of eggs and chicks. Therefore, if treatments are conducted outside of the nesting bird season, then SPR BIO-10 would apply. The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Pursuant to SPR BIO-10 focused nesting bird surveys for saltmarsh common yellowthroat, yellow warbler, and white-tailed kite would be conducted prior to implementation of treatment activities within habitat suitable for these species. If no active special-status bird nests are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status bird nests are observed during focused surveys, then Mitigation Measures BIO-2a (white-tailed kite) and BIO-2b (saltmarsh common yellowthroat and yellow warbler) would be implemented. Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 0.25 mile for white-tailed kite nests, and at least 100 feet around the nests of saltmarsh common yellowthroat and yellow warbler would be implemented, which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and no treatment activities would occur within this buffer until the chicks have fledged as determined by a qualified biologist.

Habitat function for special-status birds would be maintained because treatment activities would only result in limited removal of live trees greater than 16 inches dbh, which are the most likely features to provide nesting habitat for white-tailed kites. Although snags up to 16 inches dbh would be removed, at least one to two snags per acre over 12 inches dbh would be retained. Furthermore, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR BIO-4), which would continue to provide riparian habitat for foraging and nesting for saltmarsh common yellowthroat and yellow warbler.

Pursuant to Mitigation Measure BIO-2a, and because white-tailed kite is fully protected species under California Fish and Game Code, County of Marin must notify CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, County of Marin determined that implementation of treatments would maintain habitat function for white-tailed kite and consulted with CDFW to seek technical input on this determination, as required. On July 10, 2023, County of Marin sent a memo to Katanja Waldner and Julie Coombes at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to white-tailed kite and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Further discussion with CDFW occurred on August 8, 2023. Refinement to the sensitive season for white-tailed kite resulted from this notification. 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.

Monarch Butterfly

The forest stands within the project area are more than 6 miles from the coast or San Francisco Bay and at elevations from 500 to over 1,200 feet, and therefore are not likely to provide overwintering habitat for monarch butterflies (CBD et al. 2014). While overwintering by monarch butterflies is unlikely within the project area, milkweed (*Asclepias* spp.) host plants for monarch butterflies occur within the project area, and monarch breeding has been documented to occur in Fairfax (Western Monarch and Milkweed Mapper 2023).

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

If focused surveys pursuant to SPR BIO-10 are conducted and host plants (i.e., milkweed) are not detected, then further mitigation for the species would not be required. If host plants and monarch butterflies are detected during focused surveys, or if host plants are detected and monarch butterflies are assumed to be present, then Mitigation

Measure BIO-2e would be implemented. Under Mitigation Measure BIO-2e, measures will be implemented to reduce the likelihood of mortality, injury, or disturbance to monarchs and to maintain habitat function. These measures include a 10-foot buffer around host plants (i.e., native milkweed), if treatments are conducted during March 15 through October 31, when eggs, larvae, and pupae of monarch butterflies may be present (Xerces Society 2019), and conducting treatments in a patchy pattern to retain floral resources and provide refuge for butterflies if they are detected or assumed to be present.

Habitat function for monarch would be maintained because treatment activities and maintenance treatments would avoid the sensitive season for the species or would avoid host plants for the species during the sensitive season and would be conducted to retain floral resources if monarch butterflies are present or assumed to be present. Therefore, any temporary impacts resulting from project implementation in the project area would not result in significant loss of natural habitat in the vicinity of the project area. If monarchs are listed under ESA during the life of the project, then the final determination for habitat function maintenance must be made by the Project Proponent in contact with USFWS. Therefore, if monarchs are listed and Mitigation Measure BIO-2e is required for treatment activities, the Project Proponent would contact USFWS to seek technical input on the determination that habitat function would be maintained for monarch butterflies, and input on their proposed measures to avoid injury to or mortality of the species. This technical input may result in modification of the proposed measures. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Ringtail

Ringtail, a cat-sized mammal also known as a "Miner's Cat," is primarily nocturnal and typically occurs in riparian areas, forests (including stands of various ages), and shrub habitats. Potential denning locations include rock outcrops, crevices, snags, large hardwoods, large conifers, and areas of dense shrubs. Rock outcrops were not observed in the project area during the reconnaissance survey conducted pursuant to SPR BIO-1, and if present would be not targeted for treatment activities. However, the removal of trees and snags greater than 16 inches dbh, and the thinning of dense shrubs may result in disturbance of ringtail dens. The potential for treatment activities, including maintenance treatments, to result in adverse effects on ringtail was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on ringtail can be clearly avoided by conducting mechanical treatments, manual tree and snag removal treatments, and prescribed burning within habitat suitable for ringtail outside of the season of sensitivity (i.e., maternity season; April 15 through July 30), then mitigation would not be required. Outside of the breeding season, resting ringtails would likely flee due to the presence of equipment, vehicles, or personnel, and injury or mortality would not be expected. Herbicide application is not expected to result in adverse effects on ringtail dens because this activity would not likely result in the disturbance or removal of den sites and herbicide treatments would be conducted using vehicles on roads or off road on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. Adverse effects on ringtail would be clearly avoided for mechanical treatments, manual tree and snag removal treatments, and prescribed burning that would occur within habitat suitable for the species outside of the ringtail maternity season (April 15 through July 31).

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

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

Habitat function for ringtail would be maintained because treatment activities would not result in removal of live woody shrubs, dead, dying, and diseased trees, and select live trees greater than 16 inches dbh, unless they are a public safety hazard, substantially damaged, Douglas fir that are encroaching into other habitat types within 300 feet of hardwood, shrub, and grassland and or a seed source for encroachment, or an invasive exotic species. Therefore, the majority of trees greater than 16 inches dbh would not be removed, and these are the most likely trees to provide den locations for ringtail. Although snags over 16 inches dbh would be removed, at least one to two snags per acre, over 12 inches dbh, would be retained along with down woody debris over 16 inches in diameter. Furthermore, within the limited riparian habitat in the project area, at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation would be retained (pursuant to SPR HYD-4), which would continue to provide riparian habitat suitable for the species. In areas of dense shrub habitat within the project area, thinning or removal of dense shrubs and creation of a mosaic of habitat types would not likely result in a decrease of habitat function, because ringtails often select rest sites and den sites near habitat edges (Myers 2010). Treatment activities would likely create additional edge habitat, which would be used by ringtail.

Pursuant to Mitigation Measure BIO-2a, and because ringtail is a fully protected species under California Fish and Game Code, the County of Marin must contact CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, the County of Marin determined that implementation of treatments would maintain habitat function for ringtail and consulted with CDFW to seek technical input on this determination, as required. On July 10, the County of Marin sent a memo to Katanja Waldner and Julie Coombes at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to ringtail and to maintain habitat function in compliance with Mitigation Measure BIO-2a. Further discussion with CDFW occurred on August 8, 2023. Refinement of the sensitive season for ringtail resulted from this notification. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Bats

Habitat potentially suitable for three special-status bat species—pallid bat, Townsend's big-eared bat, and western red bat—are present within forest habitat, rocky areas, and human-made structures (e.g., outbuildings) in the project area. While rocky areas and outbuildings would not be targeted for treatment activities, the limbing of trees and the removal of live trees and snags up to 16 inches, or larger if they are a public safety hazard, dead or dying, irreversibly diseased, substantially damaged, Douglas fir that are encroaching into other habitat types within 300 feet of hardwood, shrub, and grassland and or a seed source for encroachment, or an invasive exotic species may result in disturbance of roosting special-status bats. Per SPR BIO-1, if it is determined that adverse effects on special-status bats can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season), then mitigation would not be required. Adverse effects on special-status bat maternity roosts would be clearly avoided by conducting initial and maintenance treatments outside of the bat maternity season (March 15 through September 15).

Treatment activities, including prescribed burning, mechanical treatments, and manual treatments conducted within habitat suitable for bats during the bat maternity season (March 15 through September 15) could disturb active bat roosts from auditory and visual stimuli (e.g., heavy equipment, chainsaws, vehicles, personnel) or smoke (e.g., prescribed burning) potentially resulting in abandonment of the roost and loss of young. Herbicide treatments would not remove foliage from trees, tree cavities, snags, or other potential roosting locations for bats and these treatments would not be expected to result in substantial disturbance to special-status bat roosts. The potential for treatment activities to result in adverse effects on special-status bats was examined in the Program EIR.

If mechanical or manual treatments or prescribed burning would occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for these species would be conducted within habitat suitable for the species

prior to initiation of these treatment activities. If special-status bat roosts are identified during focused surveys, Mitigation Measure BIO-2b for special-status bats would be implemented.

Under Mitigation Measure BIO-2b, a no-disturbance buffer of 250 feet would be established around active pallid bat, Townsend's big-eared bat, or western red bat roosts which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and mechanical treatments and manual snag and tree removal treatments would not occur within this buffer. A no-disturbance buffer of 250 feet is necessary to protect sensitive roosts. If special-status bat roosts are identified in an area where broadcast burning is planned, broadcast burning activities would be implemented outside of the bat breeding season, which is March 15 through September 15.

Habitat function for special-status bats would be maintained because treatment activities and maintenance treatments would not result in removal of living trees (i.e., conifers, hardwoods) greater than 16 inches dbh, unless tress are a public safety hazard, dying, irreversibly diseased, substantially damaged, Douglas fir that are encroaching into other habitat types or are within 300 feet of hardwood, shrub, and grassland and a seed source for encroachment, or an invasive exotic species, which would continue to provide potential roost locations. In addition, one to two snags over 12 inches dbh would be retained per acre to provide wildlife habitat. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Conclusion

The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the Program EIR. This impact is within the scope of the Program EIR, because the proposed treatment activities are consistent with those analyzed in the Program EIR. Biological resource SPRs that apply to project impacts under Impact BIO-2 are SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-10, HAZ-5, HAZ-6, HYD-1, HYD-4, and HYD-5. Mitigation Measures BIO-2a, BIO-2b, and BIO-2e also apply to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-3

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on sensitive habitats, including riparian habitat and sensitive natural communities as defined by CDFW (CDFW 2022). 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, however, could result in additional adverse effects, including type conversion and loss of habitat function. The potential for treatment activities, including maintenance treatments, to adversely affect sensitive habitats was examined in the Program EIR.

Based on Marin County fine-scale vegetation mapping, aerial photos, and the reconnaissance-level survey conducted pursuant to SPR BIO-1, the following sensitive habitats (as identified in Manual of California Vegetation, and CalVTP Program EIR with a rarity rank of S1, S2, or S3) are present within the project area: California bay forest and woodland, redwood forest and woodland, and Eastwood manzanita chaparral. Marin fine-scale mapping identifies Douglas fir – tanoak forest and woodland in the project area, however no tanoak was observed. These areas are more accurately classified as Douglas fir forest and woodland (rarity rank of S4, "apparently secure"). In addition, coast live oak woodland and forest, which is not a designated sensitive natural community (rarity rank of S4, "apparently secure"), but is a sensitive habitat pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4, is present in the project area.

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, dominant species associated with these sensitive natural communities were observed, including coast redwood (*Sequoia sempervirens*), California bay (*Umbellularia californica*), and Eastwood manzanita (*Arctostaphylos glandulosa*). Because fine-scale vegetation mapping has been completed in the project area to identify sensitive natural communities in the project area to the alliance level pursuant to Protocols for Surveying and Evaluating Impacts on Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018, or current version), SPR BIO-3 is complete.

Treatment activities are proposed within the California bay forest and woodland, redwood forest and woodland, and coast live oak woodland and forest sensitive natural communities to reduce the density of encroaching Douglas fir

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

As described above, Eastwood manzanita chaparral habitat is present within the project area. As required by SPR BIO-5, treatments implemented in chaparral will be designed to avoid type conversion of chaparral vegetation and to maintain chaparral habitat function. This will include determining appropriate treatment prescriptions based on current fire return interval departure and condition class of the chaparral vegetation onsite, retaining at least 35 percent relative final density of mature chaparral vegetation, and retaining a mix of middle to older aged shrubs to maintain heterogeneity. The County of Marin will demonstrate with substantial evidence that the habitat function of chaparral 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 County of Marin demonstrates with substantial evidence that the habitat function of the chaparral vegetation would be improved.

Riparian habitats, a sensitive habitat type protected under California Game Code Section 1602, are also present in the project area. Riparian vegetation types identified in the project area during the reconnaissance survey include willow (*Salix* ssp.*)*, alder (*Alnus* sp.*)*, rush (*Juncus* ssp.*),* and blackberry (*Rubus* sp.*)*. Under SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II streams would be implemented for manual and mechanical treatments, prescribed burning, and herbicide application, which would limit the extent of treatment activities within riparian habitat. While these SPRs would reduce potential impacts on riparian habitat, the extent of riparian habitat within the project area has not been mapped and riparian habitat may be present outside of the areas encompassed within WLPZs. As a result, before implementation of treatment activities, SPR BIO-3 would be implemented to identify and map the extent of riparian habitat within a treatment area. As required under SPR BIO-4, if treatments were to occur in riparian habitats, they would retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation and would be limited to removal of uncharacteristic fuel loads (e.g., dead or dying vegetation, invasive plants). Driving heavy equipment, equipment fueling, placement of burn piles, and fire ignition would be prohibited within the WLPZ. Herbicides, aquatic and terrestrial, would not be utilized within WLPZs or ELZs (established per SPR HYD-5). In addition, before conducting any treatments in riparian habitat, the Project Proponent would notify CDFW pursuant to California Fish and Game Code 1602, when required. After implementation of SPR BIO-4, if impacts on riparian habitat remain significant under CEQA, then Mitigation Measures BIO-3c would apply and unavoidable losses of these resources would be compensated through restoration or preservation of these vegetation types within or outside of the project area.

Conclusion

The potential for treatment activities to result in adverse effects on sensitive habitats, as described above, was examined in the Program EIR. This impact on sensitive habitats is within the scope of the Program EIR, because the treatment activities and intensity of disturbance from implementing treatment activities would be consistent with those analyzed in the Program EIR. Biological resource SPRs that apply to project impacts under Impact BIO-3 are SPR BIO-1, SPR BIO-2, SPR BIO-3, SPR BIO-4, SPR BIO-5, SPR BIO-6, SPR BIO-9, SPR HYD-4, and SPR HYD-5. The mitigation measures that apply to this impact are Mitigation Measure BIO-3a, Mitigation Measure BIO-3b, and Mitigation Measure BIO-3c. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-4

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

During the reconnaissance-level survey conducted pursuant to SPR BIO-1, multiple types of aquatic habitat were observed, including a pond approximately 1.15 acres in size and several intermittent drainages. Riparian habitat was also observed near the convergence of two intermittent drainages in the northern portion of the project area.

Aquatic habitats that have been identified and mapped in the project area by the National Wetlands Inventory (NWI) consist of freshwater emergent wetlands (0.25 acres), freshwater pond (1.15 acres), and riverine features (16.04 acres) The California Aquatic Resources Inventory (CARI) classifies the project area as having approximately 1.43 acres of wetlands and 7.03 linear miles of fluvial drainage features. CARI and NWI data are sourced using different methods, which accounts for differences in acreages and types. Resources mapped in these databases are identified primarily through aerial imagery and are not ground verified.

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. Pursuant to Mitigation Measure BIO-4, aquatic resources delineations will be conducted to accurately identify and map the extent of state and federally protected wetlands and waters in the treatment areas and delineate wetland and upland boundaries.

Pursuant to SPR HYD-4, a WLPZ 50 to 100 feet adjacent to Class II waters and 75 to 150 feet adjacent to Class I waters (including the pond) within the treatment area would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III and Class IV waters within treatment areas for manual, mechanical, herbicide, and pile burning treatments. Establishment of WLPZs would result in avoidance of all stream and pond habitat for manual, mechanical, prescribed burning, and herbicide application treatments.

Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of these features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, 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., western pond turtle, California giant salamander; see Impact BIO-1 and Impact BIO-2).

Conclusion

The potential for treatment activities to adversely affect state or federally protected wetlands was examined in the Program EIR. This impact on wetlands is within the scope of the Program EIR, because the treatment activities and intensity of disturbance as a result of implementing treatment activities would be consistent with those analyzed in the Program EIR. Biological resource SPRs that apply to project impacts under Impact BIO-4 are SPR BIO-1, SPR HYD-1, and SPR HYD-4. The biological resource mitigation measure that applies to project impacts under Impact BIO-4 is Mitigation Measure BIO-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-5

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

Based on review and survey of project-specific biological resources (SPR BIO-1), the project area is located within mapped regional connectivity linkages that connects natural habitats on Bolinas Ridge with habitats further north and east of the project area (Bay Area Open Space Council 2019).

Ecological restoration treatments are not likely to result in permanent impacts on wildlife movement through the project area, because habitat function would be maintained for wildlife. Treatment activities would not result in removal of live trees greater than 16 inches dbh (unless the tree is a public safety hazard, dying, irreversibly diseased, substantially damaged, Douglas fir that are encroaching into other habitat types or within 300 feet of hardwood, shrub, and grassland and a seed source for encroachment, or an invasive exotic species) which are the most likely trees to provide den habitat for ringtail and other denning wildlife species, as well as roost habitat for special-status and common bats. Although snags up to 16 inches dbh would be removed, at least one to two snags per acre over 12 inches dbh would be retained.

Fuel break treatments are also not likely to result in substantial effects on wildlife movement. Fuel breaks would occur approximately 100 feet from structures and existing roads (paved and unpaved) and 50 feet from established trails, where there are already breaks in vegetation. In grassland habitats, vegetation would be removed to create a disruption of fuels. Within shrub dominated habitat, a mosaic of shrubs would be left following fuel break treatments. Shaded fuel breaks would be used in forested habitats, and the understory and tree canopy would be thinned; however, larger trees would remain and habitat for wildlife would remain.

Pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class II streams would be implemented, which would limit the extent of treatment activities within riparian habitat (e.g., no mechanical treatment, no burn piles, retention of at least 75 percent surface cover) that would likely function as a wildlife movement corridor. Pursuant to SPRs BIO-3, BIO-4, and BIO-5, treatments in sensitive natural communities, riparian habitat, and the small portion of chaparral habitat, respectively, would be designed to maintain habitat function of these communities. With implementation of SPRs, habitat function within the project area would be maintained and there would not be a substantial change in the existing conditions that facilitate wildlife movement or provide nursery habitat in the project area. If during surveys conducted pursuant to SPR BIO-10 wildlife nursery sites (e.g., 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. Biological resource SPRs that apply to project impacts under Impact BIO-5 are SPR BIO-1, SPR BIO-4, SPR BIO-5, SPR BIO-10, SPR HYD-1, and SPR HYD-4. The biological resource mitigation measure that applies to project impacts under Impact BIO-5 is Mitigation Measure BIO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-6

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

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

The potential for adverse effects on common wildlife, including nesting birds, is within the scope of the Program EIR, because the proposed treatment activities are consistent with those analyzed in the Program EIR. 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

The potential for treatment activities to result in conflicts with local policies or ordinances was examined in the Program EIR. The Marin Countywide Plan contains policies related to habitat for special-status species, sensitive natural communities, wildlife nursery areas and movement corridors, and woodland and forested habitats. The plan also contains policies related to invasive plants, plant pathogens, use of herbicides and insecticides, as well as restrictions on disturbance in sensitive habitat during nesting season. The potential for adverse effects on these resources are addressed in Impact BIO-1, Impact BIO-2, Impact BIO-3, Impact BIO-5. Because the project would not result in any significant and unavoidable effects to any of these resources, it would be consistent with the protections required by the Marin Countywide Plan.

The Marin Countywide Plan also contains a policy related to the protection of wetlands, Policy BIO-3.1. This policy requires the establishment of a Wetland Conservation Area (WCA) for jurisdictional wetlands to be retained, which includes the protected wetlands and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. The project would not result in development of the project area and therefore this Policy would not apply.

The Marin Countywide Plan and Marin County Municipal Code also contain protections for protected and heritage trees. The Municipal Code defines protected trees and heritage trees in Article VIII Chapter 22.130, based on the dbh for each species of tree. The project would remove some live trees over 16 inches dbh, which would be protected trees. The removal of protected trees would require a Tree Removal Permit pursuant to County Municipal Code Section 22.62.020. Pursuant to SPR AD-3, the project would comply with all required permits and policies. Thus, there would be no conflict with local ordinances because of implementation of treatment activities. The biological resource SPR that applies to project impacts under Impact BIO-7 is 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.

IMPACT BIO-8

This impact does not apply to the proposed project because the project area is not within the plan area of any adopted habitat conservation plan or natural community conservation plan. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW BIOLOGICAL RESOURCE IMPACTS

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP Program EIR. The site-specific characteristics of the proposed treatment project are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final Program EIR). No changed circumstances are present; therefore, no new impact related to biological resources would occur that is not covered in the Program EIR.

4.6 GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

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

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

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

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

Discussion

The project area is located within the Coast Ranges geomorphic province (CGS 2002). As discussed in Section 3.7.1, "Environmental Setting," of the CalVTP Program EIR, the California Coast Ranges are primarily composed of Jurassic- to Cretaceous-age (about 65–150 million years old) marine sedimentary and volcanic rocks of the Franciscan assemblage. The Franciscan assemblage is a heterogeneous assemblage of clay-rich greywacke sandstone, shale, chert, and greenstone (metamorphosed volcanic rock). The coastline along this geomorphic province is uplifted, wave-cut, and terraced. As discussed in Section 4.3, "Air Quality," and Section 4.5, "Biological Resources," of this PSA, areas underlain with serpentine soils have been mapped just outside of the project area to the west. The project area is known to have landslide activity. As discussed in Section 3.7.1, "Environmental Setting," of the CalVTP Program EIR, shallow-landsliding occurrence is most likely to occur in the mountainous portions of the Coast Ranges, Klamath Mountains, Transverse Ranges, and the Sierra Nevada. Figure 3.7-3 of the CalVTP Program EIR indicates that the highest susceptibility for deep-seated landsliding is in the Coast Ranges, Klamath Mountains, and Transverse Ranges provinces.

IMPACT GEO-1

Vegetation treatments would include ecological restoration and fuel breaks through use of prescribed burning, mechanical treatment, manual treatment, and herbicide application (ground-based methods). 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 and other treatment activities are consistent with those analyzed in the Program EIR.

SPRs applicable to this impact are AQ-3, AQ-4, GEO-1 through GEO-8, and HYD-4, which would be implemented to avoid and minimize the risk of substantial erosion and loss of topsoil as a result of project implementation. As discussed 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 GEO-2

Proposed vegetation treatment activities would include prescribed burning, mechanical treatment, manual treatment, and herbicide application (ground-based methods). Landslide activity has been identified near or within the project area based on mapping by the US Geologic Survey (USGS 2023). 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.

SPRs applicable to this impact are AQ-3, GEO-3, GEO-4, GEO-7, and GEO-8, which require the stabilization of mechanically disturbed soil, erosion monitoring, and that a qualified professional evaluate treatment areas with slopes greater than 50 percent for unstable areas. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCE IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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). 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. Therefore, no new impact related to geology, soils, paleontology, or mineral resources would occur that is not covered in the Program EIR.

4.7 GREENHOUSE GAS EMISSIONS

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

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

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

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

Discussion

IMPACT GHG-1

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in greenhouse gas (GHG) emissions. Consistency of treatments under the CalVTP with applicable plans, policies, and regulations aimed at reducing GHG emissions was examined in the Program EIR. 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. 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

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 was 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 air curtain burners is proposed. An air curtain burner works by pushing high velocity air over the top of the burn chamber, creating a curtain of air which rising smoke cannot penetrate. The unburned particulates are pushed back down into the burn chamber where they reburn until they are light enough to rise through the air curtain (CAL FIRE 2021). The essential function of this technology 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 CO_2 emissions compared to pile burning (Puettman et. al. 2020 as cited in 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 will be implemented by using air curtain burners when feasible to reduce GHG emissions associated with pile burning. Although use of these specialized biomass processing technologies would substantially reduce GHG emissions, emissions generated by the treatment 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 would contain the description of feasible GHG reduction techniques implemented per Mitigation Measure GHG-2. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS RELATED TO GHG EMISSIONS

The proposed treatments are within the CalVTP treatable landscape and 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). 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. Therefore, no new impact related to GHG emissions would occur.

4.8 ENERGY RESOURCES

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

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

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

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

Discussion

IMPACT ENG-1

Use of vehicles, mechanical equipment (e.g., masticator), 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. Consistent with the Program EIR, and in consideration of the project's purpose to reduce wildfire occurrence and severity, implementation of the proposed treatment types is reasonably expected to reduce the intensity of response to wildfire, specifically the resources needed for fire suppression (e.g., equipment and vehicles). With less intense wildfire suppression response and its relatively inefficient consumption of energy, fuel and energy consumption for wildfire suppression response would decrease, as well. 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. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW ENERGY RESOURCE IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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). 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. Therefore, no new impact related to energy resources would occur.

4.9 HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered In the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is this Impact Within the Scope of the Program EIR?
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact HAZ-1, pp. 3.10-14 – 3.10-15	Yes	HAZ-1 HYD -4	NA	LTS	No	Yes
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2, pp. 3.10-15 – 3.10-18; Appendix HAZ-1 and HAZ-2	Yes	HAZ-5 through HAZ-9	NA	LTS	No	Yes
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	LTSM	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	NA	HAZ-3	LTSM	No	Yes

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

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

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

Discussion

IMPACT HAZ-1

Initial and maintenance treatments would include mechanical treatments, manual treatments, herbicide application, and prescribed burning. These treatment activities would require the use of fuels and related accelerants, which are hazardous materials. The potential for treatment activities to cause a significant health hazard from the use of hazardous materials was examined in the Program EIR. This impact is within the scope of the Program EIR because the types of treatments and associated equipment and types of hazardous materials that would be used are consistent with those analyzed in the Program EIR. SPRs HAZ-1 and HYD-4 would be applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HAZ-2

Initial and maintenance treatments would include the application of herbicides using targeted, ground-based methods, such as backpack spraying, herbicide painted onto cut stems, or hand application. No aerial spraying of herbicides would occur. The potential for treatment activities to cause a significant health hazard from the use of herbicides was examined in the Program EIR. This impact is within the scope of the Program EIR because the herbicides (e.g., glyphosate) and application methods that would be used, which are limited to ground-based applications, are consistent with those analyzed in the Program EIR. In addition, herbicides would be applied by licensed applicators in compliance with all laws, regulations, and herbicide label instructions, consistent with herbicide use described in the Program EIR. SPRs HAZ-5 through HAZ-9 are applicable to this treatment and would involve preparation of a spill prevention and response plan; compliance with herbicide application regulations; triple rinsing herbicide containers; minimizing herbicide drift to public areas; and notification of herbicide use in the vicinity of public areas. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HAZ-3

Initial and maintenance treatments would include soil disturbance and prescribed burning, which could expose workers, the public, or the environment to hazardous materials if a contaminated site is present within the project area. The potential for workers conducting 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 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, and no hazardous materials sites were identified within 0.25 mile of the project (DTSC 2023; CalEPA 2023; SWRCB 2023) (Attachment C). Therefore, after implementation of Mitigation Measure HAZ-3, it was determined that no hazardous materials sites would be disturbed by treatments and this impact would be less than significant. No SPRs are applicable to this impact, and no additional mitigation is required. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY IMPACTS

The proposed treatments are within the geographic scope of the CalVTP and 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). 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. Therefore, no new impact related to hazardous materials, public health and safety would occur.

4.10 HYDROLOGY AND WATER QUALITY

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

Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is this Impact Within the Scope of the Program EIR?
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5, p. 3.11-31	Yes	GEO-5 HYD-4 HYD-6	NA	LTS	No	Yes

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

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

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

Discussion

IMPACT HYD-1

Initial and maintenance treatments would include prescribed burning. Ash and debris from treatment activities could be washed by runoff into adjacent drainages, streams, and the pond located within Camp Tamarancho. Although most treatment areas would avoid streams and watercourses, WLPZs ranging from 50 to 150 feet would be implemented for Class I and Class II streams that are within treatment areas pursuant to SPR HYD-4. Specifically, pursuant to SPR HYD-4, a WLPZ of 50 to 100 feet from any Class II stream and 75 to 150 feet adjacent to the pond (Class I) would be implemented within the treatment area. As required under SPR HYD-4, burn piles would be located outside of the WLPZ. 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. SPRs applicable to this treatment are AQ-3, BIO-4, BIO-5, GEO-4, GEO-6, 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 HYD-2

Initial and maintenance treatments would include mechanical and manual treatments. Although the project has been designed to avoid most streams and watercourses by omitting them from treatment areas, WLPZs of 50 to 150 feet would be implemented for any watercourse or pond within treatment areas pursuant to SPR HYD-4. As discussed under Impact HYD-1, a WLPZ of 50 to 100 feet from any Class II stream and 75 to 150 feet adjacent to the pond (Class I) would be implemented. Mechanical treatment would not occur within the WLPZ; rather, manual treatment would be used in the WLPZ to reduce ground disturbance and potential erosion into the waterway. Furthermore, treatment activities within the WLPZ will be required per SPR HYD-4 to retain at least 75 surface cover to act as a filter strip for raindrop energy dissipation.

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. SPRs applicable to this impact are BIO-1, GEO-1 through GEO-5, GEO-7, GEO-8, HYD-1, HYD-4, HYD-5, HAZ-1, and HAZ-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-3

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

IMPACT HYD-4

Initial and maintenance treatments would include the use of herbicides to manage invasive plant species within the project area. Herbicide application would be limited to ground-based methods, such as a using targeted spray from a backpack, painting herbicide onto cut stems, or hand application. All herbicide application would comply with EPA and California Department of Pesticide Regulation (DPR) label standards. As discussed under Impact HYD-1, a WLPZ of 50 to 100 feet from any Class II stream and 75 to 150 feet adjacent to the pond (Class I) would be implemented. The use of terrestrial or aquatic herbicides would not occur within any WLPZ.

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. SPRs applicable to this impact are BIO-4, HYD-5, HAZ-5, and HAZ-7. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-5

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. The potential for treatment activities to substantially alter the existing drainage pattern of a project area was examined in the Program EIR. This impact to site drainage is within the scope of the Program EIR because the use and type of equipment, extent of vegetation removal, use of manual treatments, and intensity of proposed mechanical treatment activities are consistent with those analyzed in the Program EIR. SPRs applicable to this treatment are GEO-5, HYD-4, and HYD-6. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HYDROLOGY AND WATER QUALITY IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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). 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. Therefore, no new impact related to hydrology and water quality would occur.

4.11 LAND USE AND PLANNING, POPULATION AND HOUSING

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

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

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

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

Discussion

IMPACT LU-1

Initial and maintenance vegetation treatments would occur within the Camp Tamarancho property, owned and managed by the BSA and located directly northwest of the Town of Fairfax in Marin County. As noted in Section 4.12, "Noise," below, treatment activities would typically be limited to 8:00 a.m. to 5:00 p.m. Monday through Friday, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. The potential for vegetation treatment to cause a significant environmental impact due to the conflict with a land use plan, policy, or regulation was evaluated in the Program EIR. This impact is within the scope of the Program EIR because the treatment locations, types, and activities associated with the project are consistent with those analyzed in the Program EIR. SPR AD-3 is applicable to this impact and would avoid and minimize risk of significant environmental impact due to conflicts with a land plan, policy, or regulation. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT LU-2

The potential for initial treatments and maintenance treatments to result in substantial unplanned population growth as a result of increases in demand for employees was examined in the Program EIR. Impacts associated with short-term increases in the demand for workers during implementation of the treatment project are within the scope of the Program EIR because the number of workers required for implementation of the treatments is consistent with (less than) the crew size analyzed in the Program EIR for the types of treatments proposed (i.e., up to four crews of 12 and 14 members each for prescribed burning, up to four crews for mechanical treatments, up to four crews of 12 to 16 members each for manual treatments, and 12 to 14 person crews for herbicide treatments). In addition, the proposed project would not require the hiring of new employees. No SPRs apply to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW LAND USE AND PLANNING, POPULATION AND HOUSING IMPACTS

The proposed treatments are within the geographic scope of the CalVTP and 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 3.12.1, "Environmental Setting," and Section 3.12.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to land use and planning or population and housing would occur.

4.12 NOISE

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

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

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

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

Discussion

IMPACT NOI-1

Initial and maintenance treatments would require the use of noise-generating equipment during manual and mechanical treatment activities and biomass disposal. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the Program EIR. The Marin County Municipal Code includes a section on "Loud and Unnecessary Noises." Within the section, there is a subsection on "Enumerated Noises" that discusses construction activities and related noise. Loud noise-generating construction-related equipment (e.g., backhoes, generators, jackhammers) are limited to the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday. There are special exemptions to the limitations for construction projects of the city, county, state, other public agency, or other public utility, when written permission of the community development director has been obtained (Marin County Municipal Code Section 6.70.030 (5)). Within the Camp Tamarancho project area, although there is potential for prescribed burning to occur during nighttime and weekend hours, treatment activities using equipment would be limited to daytime hours on Monday through Friday, which would avoid the potential to cause sleep disturbance during the more noise-sensitive evening and nighttime hours. In addition, equipment use would be intermittent, and equipment would move throughout the project area, such that noise increases at any one noise-sensitive receptor would be limited. Furthermore, SPRs AD-3 and NOI-1 through NOI-6 would be implemented. This impact is within the scope of the Program EIR because the number and types of equipment proposed, and the duration of equipment use, are consistent with those analyzed in the Program EIR. This determination is consistent

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

IMPACT NOI-2

Initial and maintenance treatments would involve large trucks hauling heavy equipment to the project area. Local roads that trucks may use to access the project area include Sir Francis Drake Boulevard. These haul truck trips could pass by residential receptors, and the event of each truck passing by could increase single-event noise levels (SENL). The potential for a substantial short-term increase in SENLs 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 proposed treatments would occur during daytime hours on Monday through Friday, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. SPR NOI-1 is applicable to this treatment. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW NOISE IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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 3.13.1, "Environmental Setting," and Section 3.13.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to noise would occur.

4.13 RECREATION

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

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

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

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

Discussion

IMPACT REC-1

The proposed treatments would occur within private Camp Tamarancho property, which is owned by the BSA and is only accessible to the public by permit. Recreational areas near Camp Tamarancho include White Hill Preserve to the north and Cascade Canyon Preserve to the south, which are both a part of the Marin County Open Space District Preserve and offer a variety of recreational opportunities, including hiking (e.g., Pam's Blue Ridge Trail, Cascade Falls Trail, Cascade Peak, and Burnt Tree Trail), biking, and horseback riding.

Although topography and distance from the surrounding open space preserves would generally minimize disruption of recreational activities in the project vicinity, initial and maintenance vegetation treatment activities have the potential to disrupt recreational activities by degrading the experience of recreationists, including through the creation of noise or degradation of scenic views. The potential for vegetation treatment activities to disrupt recreation activities was examined in the Program EIR. This impact is within the scope of the Program EIR because the availability of recreational resources and the treatment activities and intensity are consistent with those analyzed in the Program EIR. The SPR applicable to this treatment is REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW RECREATION IMPACTS

The proposed treatments are within the CalVTP treatable landscape and 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 3.14.1, "Environmental Setting," and Section 3.14.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to recreation would occur.

4.14 TRANSPORTATION

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

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

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

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

Discussion

IMPACT TRAN-1

Initial and maintenance treatments would temporarily increase vehicular traffic along roadways throughout the project area, including SR 101, Sir Francis Drake Boulevard, Iron Springs Road, 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 SPRs applicable to this impact are AD-3 and TRAN-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT TRAN-2

Initial and maintenance treatments would not require the construction or alteration of any roadways. However, the proposed treatments would include prescribed burning, which would produce smoke and could potentially affect visibility along nearby roadways and hauling heavy machinery and operating large trucks along roadways, such that a transportation hazard could occur. The potential for increased hazards due to a design feature or incompatible use 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 and limited number of large trucks (e.g., hauling equipment) along roadways are consistent with that analyzed in the Program EIR. 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

Implementation and maintenance 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 project area and potentially haul vegetative debris to processing facilities. The potential for an increase in VMT on affected roadways during implementation of the treatment project was examined in the Program EIR. This impact was identified as potentially significant and unavoidable in the Program EIR because implementation of the CalVTP as a whole (throughout the State) would result in a net increase in VMT. Initial treatments are expected to require up to 64 crew members. Chipped, invasive plant, and noxious weed biomass may also be disposed of off-site, increasing the potential for VMT attributable to the project to increase. A temporary increase in VMT is within the scope of the Program EIR because the number and duration of increased vehicle trips, the size and number of crews, and treatment activities are consistent with those analyzed in the Program EIR. The increase in vehicle trips would be temporary and dispersed over multiple roadways.

As discussed for Impact AQ-1 in Section 4.3, "Air Quality," Mitigation Measure AQ-1 would be implemented to the extent feasible, which includes carpooling. However, because crews may not all be employed with the same company and due to the project's location in a rural area, carpooling may not be feasible to implement for most of the workers. Beyond encouraging workers to carpool, it would not be feasible to reduce VMT generated under the proposed project. For these reasons, and as explained in the Program EIR, this impact would remain potentially significant and unavoidable. No SPRs are applicable to this impact. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON TRANSPORTATION

The proposed treatments are within the CalVTP treatable landscape and 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). 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. Therefore, no new impact related to transportation would occur.

4.15 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

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

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

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

Discussion

IMPACT UTIL-1

Initial and maintenance treatments would include prescribed burning, which would require an on-site water supply (water trucks) to be available as a safety precaution. If needed to extinguish the burn, water would be supplied from water trucks. The potential increased demand for water was examined in the Program EIR. This impact is within the scope of the Program EIR because the size of the areas proposed for prescribed burn treatments, amount of water required for prescribed burning, and water source type are consistent with those analyzed in the Program EIR. No SPRs are applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-2

Initial and maintenance treatments would generate biomass as a result of vegetation removal within the project area. Biomass generated by mechanical and manual treatments would be disposed of with mulching, chipping, pile burning, air curtain burning, or broadcast burning. If invasive plant and noxious weed biomass cannot be treated on-site, it may be disposed of off-site at an appropriate waste collection facility; however, invasive plants and noxious weeds will not be chipped and spread, scattered, or mulched on-site. The potential for solid waste generation to exceed state standards or local infrastructure capacity was examined in the Program EIR.

This impact was identified as potentially significant and unavoidable in the Program EIR because biomass hauled off-site could exceed the capacity of existing infrastructure for handling biomass. While the amount of biomass generated is not expected to exceed the capacity of existing local infrastructure in Marin County, because the project would potentially generate biomass needing off-site disposal, it could contribute to the environmental significance conclusion in the Program EIR; therefore, for purposes of CEQA compliance, this PSA notes the impact as potentially significant and unavoidable. This impact is within the scope of activities and impacts addressed in the Program EIR because the type and amount of biomass generated that may need to be disposed of off-site are consistent with those analyzed in the Program EIR. SPR UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-3

As discussed above, initial and maintenance treatments would generate biomass. Biomass generated by mechanical and manual treatments would be disposed of with mulching, chipping, pile burning, air curtain burning, or broadcast burning. Invasive plant and noxious weed biomass may be treated on-site to eliminate seeds and propagules and would not be chipped and spread or mulched on-site. If invasive plant and noxious weed biomass cannot be treated on-site, it may be disposed of off-site at an appropriate waste facility. If off-site disposal is required, Marin Fire 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 Program EIR because the type and amount of biomass that may need to be hauled off-site are consistent with those analyzed in the Program EIR. SPR UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

The proposed treatments are entirely within the geographic scope of the CalVTP and 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 3.16.1, "Environmental Setting," and Section 3.16.2, "Regulatory Setting," in Volume II of the Final Program EIR). 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. Therefore, no new impact related to public services or utilities and service systems would occur.

4.16 WILDFIRE

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

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

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

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

Discussion

IMPACT WIL-1

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

The potential increase in exposure to wildfire during implementation of treatments was examined in the Program EIR. Increased wildfire risk associated with the use of heavy equipment in vegetated areas and with prescribed burns is within the scope of the Program EIR because the types of equipment and treatment duration and the types of prescribed burn methods proposed as part of the project are consistent with those analyzed in the Program EIR. SPRs applicable to this

treatment are HAZ-2, HAZ-3, and HAZ-4. This impact of the proposed project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT WIL-2

Proposed vegetation treatment activities would include prescribed burning, mechanical treatment, manual treatment, and herbicide application (ground-based methods), 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 Program EIR because the equipment types and duration, and methods of prescribed burn implementation are consistent with those analyzed in the Program EIR. SPRs applicable to this impact are AQ-3, GEO-3, GEO-4, 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.

NEW IMPACTS ON WILDFIRE

The proposed treatments are entirely within the geographic scope of the CalVTP and 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). For the reasons described above, impacts of the proposed treatment project are consistent with those covered in the Program EIR. No changed circumstances would give rise to new significant impacts not addressed in the Program EIR. Therefore, no new impact related to wildfire would occur that is not covered in the Program EIR.

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Attachment A

Mitigation Monitoring and
Reporting Program for the
Camp Tamarancho Fuel Reduction and
Community Protection Project

TABLE OF CONTENTS

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MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

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

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

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

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, the County of Marin is the project proponent, and Marin Fire is the project partner. For purposes of CEQA compliance, Marin Fire and the County of Marin Environmental Coordinator both serve as responsible agencies. Marin Fire is facilitating the implementation of treatments on 410 acres of private property owned and managed by the Boy Scouts of America (BSA). Unless otherwise specified herein, Marin Fire (the implementing entity) is responsible for taking all actions necessary to implement the SPRs and mitigation measures under its jurisdiction according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. Marin Fire will be responsible for implementation of mitigation measures pursuant to Section 15097 of the State CEQA Guidelines.

REPORTING

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

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

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

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

QUALIFICATION REQUIREMENTS FOR BIOLOGICAL AND CULTURAL RESOURCE MEASURES

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

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

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

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

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

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

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
Administrative Standard Project Requirements			
SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE will meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE will also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment activities.	Marin Fire	Marin Fire
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.	Prior to treatment activities.	Marin Fire	Marin Fire
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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
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.	At least three days prior to the commencement of prescribed burning operations.	Marin Fire	Marin Fire
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.	During treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	One to three days prior to the commencement of a treatment activity.	Marin Fire	Marin Fire
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 of Forestry and Fire Protection (Board) or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. Information on proposed projects (PSA in progress): ▶ GIS data that include project location (as a point), or project latitude/longitude; ▶ project size (typically acres); ▶ treatment types and activities; and ▶ contact information for a representative of the project proponent. The project proponent will provide information on the proposed project to the Board or CAL FIRE as early as feasible in the planning phase. The project proponent will provide this information to the Board or CAL FIRE with sufficient lead time to allow those agencies to make the information available to the public at least two weeks prior to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website). Information on approved projects (PSA complete): ▶ A completed PSA Environmental Checklist; ▶ A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist); ▶ 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;	During the proposed, approved, and completed stages of the project. **Information on the proposed project (PSA in progress) was submitted to CAL FIRE on March 10, 2023 (CalVTP I.D. Number 2023-13).**	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▪ 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.			
SPR AD-8 Request Access for Post-Treatment Assessment. For CAL FIRE projects, during contract development, CAL FIRE will 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 will be a requirement of the executed contract. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Prior to, during, and after all treatment activities.	Marin Fire	Marin Fire
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.	During mechanical and manual treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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	Prior to prescribed burn treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Prior to prescribed burn treatment activities; does not apply to pile burning.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	During all ground-disturbing treatment activities, including treatment maintenance, in areas likely to contain naturally occurring asbestos.	Marin Fire	Marin Fire
SPR AQ-6: Prescribed Burn Safety Procedures. Prescribed burns planned and managed by non-CAL FIRE crews will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP). The IAP will include the burn dates; burn hours; weather limitations; the specific burn prescription; a communications plan; a medical plan; a traffic plan; and special instructions such as minimizing smoke impacts to specific local roadways. The IAP will also assign responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	During prescribed burn treatment activities.	Marin Fire	Marin Fire
Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements			
SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to all initial treatment activities. Not required prior to maintenance treatments if records search remains valid. **A complete record search of the 410-acre project area has been conducted; see PSA for a summary of results. Compliance with this SPR is complete.**	Marin Fire	Marin Fire
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.	Prior to all initial treatment activities. Not required prior to maintenance treatments if records search remains valid.		

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.	Outreach to the NAHC has occurred, Tribes have been contacted and a SLF query has been completed; see PSA for a summary of consultation and Sacred Lands File query results.		
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.	Prior to all initial treatment activities. Not required prior to maintenance treatments if research remains valid.	Marin Fire	Marin Fire
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.	Prior to all initial treatment activities. Not required prior to maintenance treatments if initial surveys remain valid.	Marin Fire	Marin Fire
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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
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	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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. **Project-Specific Guidance to Implement SPR CUL-6** If indigenous archaeological materials that could be tribal cultural resources are discovered during the archaeological survey or during treatment, the project proponent shall contact the culturally affiliated tribe(s) to develop effective protection measures. If the culturally affiliated tribe(s) do not respond within seven (7) days, the indigenous archaeological materials shall be avoided, including a 50-foot buffer, and project work shall continue.			
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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
Biological Resources Standard Project Requirements			
SPR BIO-1: Review and Survey Project-Specific Biological Resources. The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment, no more than one year prior to the submittal of the PSA, and no more than one year between completion of the PSA and implementation of the treatment project. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this 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	Prior to all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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 PSA that habitat assessments older than one year remain valid (e.g., site conditions are unchanged and no treatment activity has occurred since the assessment). If more than one year passes between completion of the PSA and initiation of the treatment project, the project proponent will verify the continued accuracy of the PSA prior to beginning the treatment project by reviewing for any data updates and/or visiting the site to verify conditions. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment:			
1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided**. If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment: a. by physically avoiding the suitable habitat, or b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites). Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist. **Project-Specific Guidance to Implement SPR BIO-1** <u>Special-status plants</u> ▶ To avoid impacts on non-ESA and -CESA annual and perennial geophyte species identified in Table 4.5-2 of the PSA, non-ground-disturbing treatment activities (i.e., manual treatments, and prescribed burning) will be implemented only during the dormant season for these species (i.e., when the plant has no aboveground parts), which would generally occur during the winter, if feasible. If the limited operating period for annual and perennial geophyte species (i.e., only non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys will be required per SPR BIO-7.	Prior to all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
Note that ground-disturbing treatment activities (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and will not be conducted without prior implementation of SPR BIO-7). Special-status wildlife ▶ To avoid impacts on northern spotted owl, prior to starting treatment activities in addition to conducting a habitat assessment of the project area, conduct additional CNDDB search for recent northern spotted owl detections within 0.25 mile of the treatment area on adjacent lands where access is not available. Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) will be avoided in areas adjacent (within 0.25 mile) to habitat suitable for nesting or roosting within the project area, or within 0.25 mile of recent CNDDB nesting detections during the sensitive nesting season (February 1–July 31). To reduce visual disturbance, all activities within 500 feet of habitat suitable for nesting or roosting in the project area or recent CNDDB nesting detections on adjacent lands, will be avoided from February 1 through July 31. If it is not feasible to avoid all treatments during the northern spotted owl nesting season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on other special-status birds, other than white-tailed kite treatments will be conducted outside of the nesting season (February 1 through August 31). To avoid impacts to white-tailed kite treatments in suitable nesting habitat for the species will be conducted before February 1 and after October 31. If it is not feasible to avoid treatments during the nesting bird season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on monarch butterfly, treatments will be conducted in grassland, shrub, and oak woodland habitat outside of the season when monarch eggs, larvae, and pupae are likely to be present on milkweed host plants (i.e., treatment will be conducted outside of March 15 through October 31). This period may be adjusted by a qualified biologist or RPF to reflect local timing of monarch breeding. If it is not feasible to avoid treatments during this sensitive season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on ringtail, mechanical treatments, manual snag and tree removal, or prescribed burning activities within habitat suitable for the species, would not be implemented during the ringtail maternity season (April 15 through July 31). If it is not feasible to avoid mechanical treatments, manual snag and tree removal, or prescribed burning activities during the ringtail maternity season, SPR BIO-10 will be implemented. ▶ To avoid impacts to special-status bat maternity roosts, avoid mechanical treatments, manual snag and tree removal treatments, and prescribed burning during the bat maternity season (March 15 through September 15) in habitat suitable for roosting. If it is not feasible to avoid the bat maternity season, SPR BIO-10 will be implemented. 2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided**. Further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey requirements are presented for special-status plants in SPR BIO-7). This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Guidance to Implement SPR BIO-1** Special-Status Wildlife Because there is no reliable season during which all impacts on California red-legged frog, western pond turtle, California giant salamander, or foothill yellow-legged frog could be avoided and avoidance of habitat is not feasible for these species, implementation of SPR BIO-10 would be required for these species.			
SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. The training will instruct workers 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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
Sensitive Natural Communities and Other Sensitive Habitats			
SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will: ▶ require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of *A Manual of California Vegetation* (including updated natural communities data at http://vegetation.cnps.org/), or referring to relevant reports (e.g., reports found on the VegCAMP website).	Prior to all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.	Prior to all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry. ▶ The project proponent will notify CDFW when required by 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.			
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	Prior to and during treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
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	Prior to all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			
Invasive Plants and Wildlife			
SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. The project proponent will take the following actions to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (e.g., New Zealand mudsnail): ▪ clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife; ▪ for all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species; ▶ inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas; ▶ stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area;	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.			
Wildlife			
SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries, monarch overwintering sites) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed. This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Guidance to Implement SPR BIO-10** For manual treatments, mechanical treatments, prescribed burning, and herbicide application that occur in habitat suitable for California red-legged frog, protocol surveys will be conducted by a qualified biologist or RPF following the guidelines provided by US Fish and Wildlife Service (USFWS 2005), or presence of the species will be assumed. If presence is assumed or the species is detected during protocol surveys, Mitigation Measure BIO-2a will be implemented.	Prior to all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ For mechanical treatment, manual treatment, and prescribed burning, pursuant to SPR BIO-1, to avoid impacts on western pond turtle, focused surveys for individuals and nests will be conducted prior to treatment activities that occur in habitat suitable for western pond turtle. If western pond turtles are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ To avoid impacts on California giant salamander and foothill yellow-legged frog, focused surveys for California giant salamander and foothill yellow-legged frog will be conducted by a qualified biologist or RPF within habitat suitable for the species prior to implementation of mechanical, manual, prescribed burning, and herbicide application treatments. If California giant salamanders or foothill yellow-legged frogs are identified during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid impacts on northern spotted owl by avoiding treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) in areas adjacent to habitat suitable for nesting in the project area, or within 0.25 mile of recent CNDDB detections on adjacent lands, during the sensitive nesting season (February 1–July 31), or avoiding all treatment activities within 500 feet of habitat suitable for nesting northern spotted owl, from February 1 through July 31, pursuant to SPR BIO-1, then surveys following the Protocol for Surveying proposed Management Activities that may Impact Northern Spotted Owls (USFWS 2012) and the *Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis- Coast Redwood Region* (USFWS 2019) will occur. In addition to surveys within the project area, conduct CNDDB search for recent detections within 0.25 mile of the project area on adjacent lands where access is not available. If nesting northern spotted owls are detected during protocol surveys, or if surveys are not feasible, and activity centers are identified within 0.7 mile of treatment areas using the CNDDB Spotted Owl Database, Mitigation Measure BIO-2a will be implemented. ▶ If it is not feasible to avoid all treatments during the nesting bird season (February 1 through August 31) for all special-status birds other than white-tailed kite, and February 1 through Oct 31 for white-tailed kite, pursuant to SPR BIO-1, focused surveys (i.e., nest searches) for nests of these species will be conducted prior to implementing treatment activities during the nesting bird season within or adjacent to suitable nesting habitat. If nesting special-status birds are detected during focused surveys, Mitigation Measure BIO-2a or BIO-2b will be implemented depending on the species detected. ▶ If it is not feasible to avoid all treatments in grasslands, shrub, and oak woodland habitat during the period when monarch may be breeding (March 15 through Oct 31) pursuant to SPR BIO-1, focused surveys for milkweed host plants (*Asclepias* spp.) will be conducted prior to implementing treatment activities. If milkweed are detected during focused surveys, further survey for monarch butterfly eggs, larvae, and pupae may be conducted or presence of monarch may be assumed. If milkweed host plants are detected during focused surveys and monarch butterfly is detected or assumed present, Mitigation Measure BIO-2e will be implemented. ▶ If it is not feasible to avoid mechanical treatments, manual snag and tree removal, or prescribed burning activities within habitat suitable for ringtail during the ringtail maternity season (pursuant to SPR BIO-1), focused surveys			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
for ringtail will be conducted using trail cameras, track plates, and other non-invasive survey methods to determine whether ringtails are present within the treatment area. Surveys will be conducted by a qualified RPF or biologist, or presence may be assumed. If ringtails are detected during focused surveys, or presence is assumed, Mitigation Measure BIO-2a will be implemented. ▶ If it is not feasible to avoid mechanical treatments, manual snag and tree removal, and prescribed burning treatments within habitat suitable for bat roosting during the bat maternity season (March 15 through September 15) pursuant to SPR BIO-1 focused surveys for maternity roosts will be conducted by a qualified RPF or biologist prior to implementing treatment activities during the bat maternity season. If bat maternity roosts are detected during focused surveys, Mitigation Measure BIO-2b will be implemented.			
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: ▶ **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	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
Geology, Soils, Paleontology, and Mineral Resource Standard Project Requirements			
SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.	During mechanical and herbicide treatment activities.	Marin Fire	Marin Fire
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.	During mechanical treatment activities.	Marin Fire	Marin Fire
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.	During mechanical and prescribed burn activities that result in exposure of bare soil over 50 percent or more of the treatment area.	Marin Fire	Marin Fire
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	Prior to and during treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	During mechanical, manual, and prescribed burn treatment activities.	Marin Fire	Marin Fire
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.	During mechanical, manual, and prescribed burn treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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	Prior to and during mechanical treatment activities on slopes greater than 50 percent.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			
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.	Prior to and during treatment activities.	Marin Fire	Marin Fire
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.	During manual treatment activities.	Marin Fire	Marin Fire
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.	During manual treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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.	Prior to and during herbicide treatment activities.	Marin Fire	Marin Fire
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:	Prior to and during herbicide treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.	During herbicide treatment activities.	Marin Fire	Marin Fire
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.	During herbicide treatment activities.	Marin Fire	Marin Fire
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	Post signs prior to the start of herbicide treatment activities and maintain the signs in place through at least 72 hours after treatment ceases.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			
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 Guidance to Implement SPR HYD-1** 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.	During all treatment activities.	Marin Fire	Marin Fire
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.	Prior to treatment activities.	Marin Fire	Marin Fire
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.	Establish WLPZs during design of treatment project; implement WLPZ protections during treatment	Marin Fire	Marin Fire

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

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

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

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

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	During herbicide treatment.	Marin Fire	Marin Fire
SPR HYD-6 Protect Existing Drainage Systems: If a treatment activity is adjacent to a roadway with stormwater drainage infrastructure, the existing stormwater drainage infrastructure will be marked prior to ground disturbing activities. If a drainage structure or infiltration system is inadvertently disturbed or modified during project activities, the project proponent will coordinate with owner of the system or feature to repair any damage and restore pre-project drainage conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to ground disturbing activities; after ground disturbing activities if required.	Marin Fire	Marin Fire
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	During all treatment activities.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
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.	During all mechanical treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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.	During all treatment activities.	Marin Fire	Marin Fire
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.	Prior to mechanical treatment activities occurring within 1,500 feet of noise-sensitive receptors.	Marin Fire	Marin Fire

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Prior to and during treatment	Marin Fire	Marin Fire
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.	Prepare TMP prior to treatment and implement TMP during treatment activities.	Marin Fire	Marin Fire

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

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Aesthetics			
Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks The project proponent will conduct a visual reconnaissance of the treatment area prior to implementing non-shaded fuel breaks to observe the surrounding landscape and determine if public viewing locations, including scenic vistas, public trails, and state scenic highways, have views of the proposed treatment area. If none are identified, the non-shaded fuel break may be implemented without additional visual mitigation. If the project proponent identifies public viewing points, including heavily used scenic vistas, public trails, recreation areas, and state scenic highways with lengthy views (i.e., longer than a few seconds) of a proposed non-shaded fuel break treatment area, the project proponent will, prior to implementation, attempt to identify any feasible change in location of the fuel break to reduce its visibility from public viewpoints. If no feasible location changes exist that would reduce impacts to public viewers and achieve the intended wildfire risk reduction objectives of the proposed non-shaded fuel break, the project proponent will implement, where feasible, a shaded fuel break rather than a non-shaded fuel break, if the shaded fuel break would achieve the intended wildfire risk reduction objectives. With the shaded fuel break, the project proponent will thin and feather adjacent vegetation to break up the linear edges of the fuel break and strategically preserve vegetation at the edge of the fuel break, as feasible, to help screen public views and minimize the contrast between the fuel break and surrounding vegetation.	Prior to implementing non-shaded fuel breaks	Marin Fire	Marin Fire
Air Quality			
Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible. Techniques for reducing emissions may include, but are not limited to, the following: ▶ Diesel-powered off-road equipment used in construction will meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment.	During all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.			
Archaeological, Historical, and Tribal Cultural Resources			
Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.	During ground-disturbing activities.	Marin Fire	Marin Fire
Biological Resources			
Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear,	During all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			
Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement the following measures to avoid loss of individuals and maintain habitat function of occupied habitat: ▶ Physically avoid the area occupied by the special-status plants by establishing a no-disturbance buffer around the area occupied by species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may	During all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.			
Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. If the special-status plant taxa are listed under ESA or CESA, the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment. The first priority for compensatory mitigation will be preserving and enhancing existing populations outside of the treatment area in perpetuity, or if that is not an option because existing populations that can be preserved in perpetuity are not available, one of the following mitigation options will be implemented by the project proponent instead: ▶ creating populations on mitigation sites outside of the treatment area through seed collection and dispersal (annual species) or transplantation (perennial species); ▶ purchasing mitigation credits from a CDFW- or USFWS-approved conservation or mitigation bank in sufficient quantities to offset the loss of occupied habitat; and ▶ if the affected special-status plants are not listed under ESA or CESA, compensatory mitigation may include restoring or enhancing degraded habitats so that they are made suitable to support special-status plant species in the future. If relocation efforts are part of the Compensatory Mitigation Plan, the plan will include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements. The following performance standards will be applied for relocation: ▶ the extent of occupied area will be substantially similar to the affected occupied habitat and will be suitable for self-producing populations. Re-located/re-established populations will be considered suitable for self-producing when: ▶ habitat conditions allow for plants to reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and ▶ reestablished habitats contain an occupied area comparable to existing occupied habitat areas in similar habitat types in the region.	Following all treatment activities as applicable.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
If preservation of existing populations or creation of new populations is part of the mitigation plan, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands and actions (e.g., the number and type of credits, location of mitigation bank or easement, restoration or enhancement actions), parties responsible for the long-term management of the land, and the legal and funding mechanisms (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. If mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, funding assurances, and success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations. If mitigation includes restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. If the loss of occupied habitat cannot be offset (e.g., if preservation of existing populations or creation of new populations through relocation efforts are not available for a certain species), and as a result treatment activities would substantially reduce the number or restrict the range of listed plant species, then the treatment will not qualify as within the scope of this PEIR. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.			
Mitigation Measure BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities) If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following. <u>Avoid Mortality, Injury, or Disturbance of Individuals</u> The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals: 1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied habitat such that mortality, injury, or disturbance of the species will not occur, as determined by a qualified RPF or biologist using the most current and commonly-accepted science and considering published agency guidance; OR	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
2. Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species. ▶ For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c. Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided. <u>Maintain Habitat Function</u> ▶ The project proponent will design treatment activities to maintain the habitat function, by implementing the following: ▪ While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▪ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained. A qualified RPF or biologist of the lead agency will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If consultation determines that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c.			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Project-Specific Guidance to Implement Mitigation Measure BIO-2a ▶ To avoid mortality, injury, or disturbance to California red-legged frog, if presence is assumed within the project area or protocol surveys detect California red-legged frog (pursuant to SPR BIO-10), the following will be implemented for prescribed burning, mechanical treatments, manual treatments, and herbicide application treatment activities: ▪ Pre-treatment visual surveys will be performed daily by a qualified RPF, biologist, or biological technician, prior to implementation of treatment activities (i.e., prescribed burning, mechanical treatments, manual treatments, herbicide application) year-round within 300 feet of Class I or Class II streams and other sensitive habitat areas (e.g., wet intermittent streams, wet seeps). ▪ During the dispersal season (October 1 through April 1) or within 24 hours following a rain event greater than one quarter inch, surveys will be conducted throughout the project area, including beyond 300 feet from a Class I or Class II waters. The survey will be conducted by a qualified biologist, RPF, or biological technician. The qualified biologist, RPF, or biological technician will mark areas where frogs are found or likely to occur. ▪ Prior to and within 24 hours of ignition of burn piles, each pile will be inspected by a qualified biologist, RPF, or biological technician to determine that California red-legged frogs are not present prior to ignition. ▪ If a California red-legged frog is found during pre-treatment surveys or enters the project site during treatment activities, a no-disturbance buffer of 100 feet will be implemented around the individual unless it is determined by the qualified biologist or RPF that a different sized buffer is appropriate to avoid injury or mortality. Treatment activities will cease within the buffer until the animal leaves on its own. ▪ All mechanized equipment (e.g., track chippers, tracked grinder, slope mower) will shut down for 24 hours following any precipitation event of 0.2 inch to less than 1 inch, 48 hours following any precipitation event 1 inch to less than 2 inches, and 72 hours following any precipitation event greater or equal to 2 inches. Handwork may continue. ▪ If California red-legged frog is found during pre-treatment surveys or enters the project site during treatment activities, the specific habitat features used by the frog when detected will be evaluated by a qualified RPF or biologist for habitat retention and prioritized for use in meeting the retention standards for the project. ▶ To avoid mortality, injury, or disturbance to northern spotted owl if nests of the species have been detected during the CNDDB search of adjacent lands (pursuant to SPR BIO-1), during protocol surveys (pursuant to SPR BIO-10), the following measures will be implemented; ▪ If a nest is detected during surveys or documented during the CNDDB search of adjacent lands, a no-disturbance buffer will be implemented from February 1–July 31 of 500 feet to 0.25 mile around the nest depending on the noise generated by the activity (USFWS 2018; USFWS 2020). ▪ A limited operating period for all activities of February 1 through July 31 within 500 feet of nests or un-surveyed nest or roost habitat would also be implemented to avoid visual disturbance.			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ If pursuant to SPR BIO-10, northern spotted owl has been detected during protocol surveys or if surveys are not feasible, and activity centers are identified within 0.7 mile of treatment areas using the CNDDB Spotted Owl Database, then to maintain habitat function for northern spotted owl, and the habitat retention measures and standards in Northern Spotted Owl Take Avoidance Analysis and Guidance for Private lands in California, Attachment A: Take Avoidance Analysis-Coast Redwood Region(USFWS 2019) will be applied. ▶ If active white-tailed kite nests are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 0.25 mile will be established around the nest, which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. ▶ If the limited operating period for ringtail (pursuant to SPR BIO-1) is determined to be infeasible and presence of ringtails is detected during focused surveys or assumed (pursuant to SPR BIO-10), then the following avoidance and minimization measures would be required: ▪ Den Surveys. Within seven days prior to the start of mechanical treatments, manual snag and tree removal, and prescribed burning treatments during the ringtail maternity season, a qualified RPF or biologist will conduct a den search in the treatment area to be treated the next week. The qualified RPF or biologist will search for large trees (i.e., greater than 12 inches diameter at breast height [dbh]) with appropriate cavities (i.e., holes larger than 3 inches in diameter, cavities extending approximately 12 inches down from the cavity hole). If found, the qualified RPF or biologist will inspect the cavity using a cell phone with a flash, or other tools (e.g., borescopes) to determine whether ringtails are present. Areas (e.g., large trees) with appropriate den habitat, occupied or not, will be marked (i.e., with flagging, spray paint), for inspection during future sweeps (as described below). The qualified RPF or biologist will also search for dens in dense brush habitat and will note any sightings of fleeing adult ringtails. ▪ Active Dens. If active ringtail dens are discovered during a den survey or daily sweep, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and mechanical treatments 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 would 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 will be notified of the den and buffer location. CDFW will be provided an opportunity to visit the site and provide technical information on the size and shape of the den buffer. ▪ Daily Sweeps, Training, and Monitoring. If active ringtail dens are not discovered, the following measures will be implemented to avoid inadvertent destruction of active dens that eluded detection during the den search as well as take of adult ringtails and kits. • Daily Sweeps. On the first morning of work for mechanical treatments and manual snag and tree removal, a qualified RPF or biologist will conduct a sweep of the area to be treated that and will search all habitat suitable for ringtails where mastication will occur that day (i.e., larger trees, heavy brush,			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
rock piles) for active dens or adults, including the trees with cavities previously marked by the qualified RPF or biologist, unless work has occurred continuously since the initial den survey. On following days, a trained contractor will search all areas previously marked by the qualified RPF or biologist for active dens (see training requirements below under "Training and Monitoring"). If an active den is discovered during a daily sweep, the qualified RPF or biologist will be notified, all work will stop, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and the requirements described above under "Active Dens" will be followed. • **Training and Monitoring**. On the first morning of work for mechanical treatments and manual snag and tree removal, the qualified RPF or biologist will provide biological resource training (as required under CalVTP Program EIR SPR BIO-2) for all contractors. In addition to standard biological resource training, the qualified RPF or biologist will provide additional training specific to ringtail that will include the following elements: o Description of ringtail appearance (i.e., physical features, typical size); o Description of typical ringtail behavior; o Description of denning habitat suitable for ringtail, particularly in that week's treatment area. The approximate location of large trees with cavities that were previously marked will be noted; o 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; o Measures required if a ringtail is spotted (i.e., all work halts until a qualified RPF or biologist can conduct a den search and sweep; if the qualified RPF or biologist observes a ringtail or confirms the contractor's observation, the occurrence will be reported to CDFW; o Measures required if a ringtail den is found (i.e., 0.25-mile no-disturbance buffer and requirements described above under "Active Dens" will be followed); o Definition of and legal consequences for take of ringtail (i.e., $10,000 fine for each take and/or 1 year in jail); and o Requirements for contacting CDFW, which include the following circumstances: – ringtails observed during treatment activities (notify within 3 business days); active ringtail den discovered (notify within 24 hours); and take of ringtail occurs (notify within 24 hours).			
Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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 will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in mortality, injury or disturbance to special-status species. ▪ For prescribed burning, the project proponent will implement the treatment outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, the qualified RPF or biologist will determine the period of time within which prescribed burning could occur that will avoid or minimize mortality, injury, or disturbance of the species. The project proponent may consult with CDFW 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			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non-listed special-status species would benefit from the treatment. **Project-Specific Guidance to Implement Mitigation Measure BIO-2b** If other (i.e., non-listed) special-status wildlife species are observed during focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following. ▶ If a western pond turtle nest is detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 50 feet including a path from the nest to the nearest aquatic habitat would be established around the nest. ▶ If California giant salamanders, foothill yellow-legged frogs, or western pond turtles are detected during focused visual encounter surveys (pursuant to SPR BIO-10), biological monitoring by a qualified RPF, qualified biologist, or biological technician during treatment activities within or adjacent to sensitive habitat areas (e.g., streams, seeps, springs) will be implemented to avoid injury to or mortality of individual salamanders, turtles, or frogs. If the qualified RPF, qualified biologist, or biological technician detects a special-status salamander, turtle, or frog during treatments, treatment activities will cease until the individual has left the area or has been moved out of harm's way and to other nearby habitat suitable for the species by the qualified RPF, qualified biologist, or biological technician. ▶ If active saltmarsh common yellowthroat or yellow warbler nests are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 100 feet will be established around the nest, which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. ▶ If the bat maternity roosting season cannot be avoided (pursuant to SPR BIO-1) and a special-status bat roost is detected during focused surveys (pursuant to BIO-10), a no-disturbance buffer of 250 feet will be established around the roost, which may be adjusted by a qualified biologist or RPF in consultation with CDFW, and no treatment activities will occur within this buffer until the roost is no longer being used as determined by a qualified RPF or biologist. If special-status bat roosts are identified in a treatment area where broadcast burning is planned, prescribed burning activities would be implemented outside of the bat breeding season, which is March 15 through September 15.			
Mitigation Measure BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities) If federally listed butterflies are identified as occurring or having potential to occur during review and surveys for SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, then the following measures will be implemented: ▶ Treatment areas within the range of these species will be surveyed for the host plant for each species (Table 3.6-34).	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.			

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*)

Butterfly Species	Host Plants
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

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

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required. **Project-Specific Guidance to Implement Mitigation Measure BIO-2e** ▶ If host plants for monarch butterflies are detected, and monarch eggs, larvae, and pupae are detected during focus surveys pursuant to SPR BIO-10 or assumed to be present, host plants will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants if feasible (unless, pursuant to SPR BIO-1, activities occur outside of the period March 15 through October 31, when impacts to eggs, larvae, and pupae can be avoided) ▶ If monarch butterflies are detected during focused surveys pursuant to SPR BIO-10, or presence is assumed, treatments will be conducted in a patchy pattern to the extent feasible in grasslands and oak woodlands, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat and floral resources are retained.			
Mitigation Measure BIO-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	During treatment activities in areas that contain sensitive natural communities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the community (or similar community) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.			
Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement the following actions: ▶ Compensate for unavoidable losses of sensitive natural community and oak woodland acreage and function by: ▪ restoring sensitive natural community or oak woodland functions and acreage within the treatment area; ▪ restoring degraded sensitive natural communities or oak woodlands outside of the treatment area at a sufficient ratio to offset the loss of acreage and habitat function; or ▪ preserving existing sensitive natural communities or oak woodlands of equal or better value to the sensitive natural community lost through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function. ▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.	Following all treatment activities as applicable.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan.			

Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
If, after implementation of SPR BIO-4, impacts to riparian habitat remain significant under CEQA, the project proponent will implement the following:
▶ Compensate for unavoidable losses of riparian habitat acreage and function by:
  ▪ restoring riparian habitat functions and acreage within the treatment area;
  ▪ restoring degraded riparian habitat outside of the treatment area;
  ▪ purchasing riparian habitat credits at a CDFW-approved mitigation bank; or
  ▪ preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value.
▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on riparian habitat that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and:
1. For preserving existing riparian habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity.
2. For restoring or enhancing riparian habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.
	Following all treatment activities as applicable.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands Impacts to wetlands will be avoided using the following measures: ▶ The qualified RPF or biologist will delineate the boundaries of federally protected wetlands according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and the appropriate regional supplement for the ecoregion in which the treatment is being implemented. ▶ The qualified RPF or biologist will delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (California Water Boards ~~2019~~ 2021 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	Prior to and during all treatment activities.	Marin Fire	Marin Fire

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites The project proponent will implement the following measures while working in treatment areas that contain nursery sites identified in surveys conducted pursuant to SPR BIO-10: **Retain Known Nursery Sites.** A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment. **Establish Avoidance Buffers.** The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and 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.	Prior to and during all treatment activities.	Marin Fire	Marin Fire
Greenhouse Gas Emissions			
Mitigation Measure GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns When planning for and conducting a prescribed burn, project proponents implementing a prescribed burn will incorporate feasible methods for reducing GHG emissions, including the following, which are identified in the *National Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire* (NWCG 2020): ▶ 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.	Prior to and during prescribed burning treatments.	Marin Fire	Marin Fire

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

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Attachment B

Biological Resources

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

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Abronia umbellata var. breviflora Pink sand-verbena	—	—	1B.1	Perennial herb located near coastal dunes or coastal strand. Especially foredunes and interdunes with sparse cover and in disturbed sandy areas. *A. umbellata* var. *breviflora* is usually the plant closest to the ocean. Elevation: 0–35 ft. Bloom: June – October.	Not expected to occur. Dune habitat suitable for this species is not present in the project area.
Agrostis blasdalei Blasdale's bent grass	—	—	1B.2	Perennial herb found in coastal bluff scrub, coastal dunes, or coastal prairie near sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. Elevation: 0–490 ft. Bloom: May – July.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Allium peninsulare var. franciscanum Franciscan onion	—	—	1B.2	Perennial bulb found in cismontane woodland, valley and foothill grassland. Soils consisting of clay, serpentinite (often), or volcanic; often found on dry hillsides. Elevation: 170–1,000 ft. Bloom: May – June.	**May occur.** Grassland and woodland habitat suitable for this species is present in the project area.
Alopecurus aequalis var. sonomensis Sonoma alopecurus	FE	—	1B.1	Perennial herb near freshwater marshes and swamps, riparian scrub and other wet areas, marshes, and riparian banks, populated with other wetland species. Elevation: 15–1,200 ft. Bloom: May – July.	**May occur.** Riparian zones in the project area may provide habitat suitable for this species.
Amorpha californica var. napensis Napa false indigo	—	—	1B.2	Perennial shrub found in broadleaved upland forest, chaparral, and cismontane woodland openings in forest, woodland, or chaparral. Elevation: 165–6,560 ft. Bloom: April – July.	**May occur.** Chaparral, broadleaved forest, and cismontane woodland habitat suitable for this species is present in the project area. Observations of this species have been recorded within 300 feet of the project area.
Amsinckia lunaris Bent-flowered fiddleneck	—	—	1B.2	Annual bulb located in cismontane woodland, coastal bluff scrub, valley and foothill grassland specifically with gravelly slopes and serpentine openings. Elevation: 10–1,640 ft. Bloom: March – June.	**May occur.** Cismontane woodland and grasslands in the project area may provide habitat suitable for this species. Observations have been recorded within one mile of the project area.
Arctostaphylos franciscana Franciscan manzanita	FE	—	1B.1	Perennial shrub found in coastal scrub or chaparral, especially serpentine outcrops in chaparral. Elevation: 195–985 ft. Bloom: February – April.	Not expected to occur. Serpentine soil habitats suitable for this species are not present in the project area.
Arctostaphylos montana ssp. montana Mt. Tamalpais manzanita	—	—	1B.3	Perennial shrub found in chaparral, valley and foothill grassland, and rocky, serpentinite soils. Especially slopes in chaparral and grassland. Elevation: 525–2,495 ft. Bloom: February – April.	Not expected to occur. Observations have been recorded near the project area, but serpentine soils suitable for this species are not present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Arctostaphylos montana ssp. ravenii Presidio manzanita	FE	SE	1B.1	Perennial shrub found in chaparral, coastal prairie, and coastal scrub on open rocky serpentine slopes. Elevation: 15–705 ft. Bloom: February – March.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area.
Arctostaphylos virgata Marin manzanita	—	—	1B.2	Perennial shrub found in broadleaved upland forest, chaparral, closed-cone coniferous forest, and north coast coniferous forest with granitic (sometimes) and sandstone (sometimes) soils. Elevation: 150–705 ft. Bloom: February – March.	**May occur.** Broadleaved forest, coniferous forest, and chaparral habitats suitable for this species are present in the project area.
Arenaria paludicola Marsh sandwort	FE	SE	1B.1	Perennial herb found in marshes, swamps, and wet meadows in openings, often with sandy soil. Elevation: 10–560 ft. Bloom: May – August.	Not expected to occur. Marsh or swamp habitat suitable for this species is not present in the project area.
Astragalus pycnostachyus var. pycnostachyus Coastal marsh milk-vetch	—	—	1B.2	Perennial herb found in coastal dunes, coastal scrub, coastal marshes and seeps with sandy soils. Elevation: 0–100 ft. Bloom: June – October.	Not expected to occur. Coastal or marsh habitat suitable for this species is not present in the project area.
Astragalus tener var. tener Alkali milk-vetch	—	—	1B.2	Annual herb found in playas, valley and foothill grassland, as well as vernal pools and alkaline flats and flooded lands. Elevation: 5–195 ft. Bloom: March – June.	Not expected to occur. Wetland and alkaline habitats suitable for this species are not present in the project area.
Blennosperma bakeri Sonoma sunshine	FE	SE	1B.1	Annual taproot found in vernal pools and swales, particularly grassy margins of these seasonal wetlands. Elevation: 35–360 ft. Bloom: March – May.	Not expected to occur. Seasonal wetland habitats suitable for this species are not present in the project area.
Calamagrostis stricta ssp. inexpansa Thurber's reed grass	—	—	2B.1	Perennial rhizomatous herb found in coastal scrub, marshes and swamps. Usually in marshy swales surrounded by grassland or coastal scrub slopes. Elevation: 35–195 ft. Bloom: May – August.	Not expected to occur. Marsh or swamp habitat suitable for this species is not present in the project area.
Calochortus tiburonensis Tiburon mariposa-lily	FT	ST	1B.1	Bulbous perennial found in valley and foothill grassland on open, rocky, slopes in serpentine grassland. Elevation: 165–490 ft. Bloom: March – June.	Not expected to occur. Suitable serpentine soils are not present in the project area.
Calystegia purpurata ssp. saxicola Coastal bluff morning-glory	—	—	1B.2	Perennial herb with woody caudex found in coastal bluff scrub, coastal dunes, coastal scrub, north coast coniferous forest in rocky substrates. Elevation: 0–345 ft. Bloom: April – September.	**May occur.** Coniferous forest habitat suitable for this species is present in the project area.
Campanula californica Swamp harebell	—	—	1B.2	Perennial herb occurring in bogs, fens and marshes in closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marsh, and/or north coast coniferous forest. Elevation: 5–1,330 ft. bloom: June – October.	Not expected to occur. Bog, fen, marsh, and swamp habitat suitable for this species is not present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Cardamine angulata Seaside bittercress	—	—	2B.2	Perennial rhizomatous herb in lower montane coniferous forest or north coast coniferous forest, specifically wet areas, shady thickets, and streambanks. Elevation: 50–3,000 ft. Bloom: March – July.	**May occur.** Shady, wet coniferous forest habitat suitable for this species is present in the project area.
Carex comosa Bristly sedge	—	—	2B.1	Perennial herb found in marshes and swamps, lake margins, and other wetland or riparian habitats. Specifically wet places. Elevation: 0–2,050 ft. Bloom: May – September.	**May occur.** Riparian habitat potentially suitable for this species is present in the project area.
Carex lyngbyei Lyngbye's sedge	—	—	2B.2	Perennial herb found in marshes and swamps specifically brackish areas and freshwater. Elevation: 0–35 ft. Bloom: April – August.	Not expected to occur. Marsh or swamp habitat suitable for this species is not present in the project area.
Carex praticola Northern meadow sedge	—	—	2B.2	Perennial herb occurs in seeps, moist to wet meadows, riparian edges and open forest. Elevation: 0–10,500 ft. Bloom: May – July.	**May occur.** Riparian habitat potentially suitable for this species is present in the project area.
Castilleja affinis var. neglecta Tiburon paintbrush	FE	ST	1B.2	Perennial herb located in open rocky serpentine sites in valley and foothill grassland . Elevation: 195–1,310 ft. Bloom: April – June.	Not expected to occur. Serpentine soil habitats suitable for this species are not present in the project area.
Castilleja ambigua var. humboldtiensis Humboldt Bay owl's-clover	—	—	1B.2	Annual herb in salt marshes and swamps, in coastal saltmarsh with *Spartina*, *Distichlis, Salicornia,and Jaumea.* Elevation: 0–10 ft. Bloom: April – August.	Not expected to occur. Marsh or swamp habitat suitable for this species is not present in the project area.
Ceanothus decornutus Nicasio ceanothus	—	—	1B.2	Perennial shrub found in maritime chapparal, clay sometimes, open rocky serpentine slopes and ridges. Elevation: 770–950 ft. Bloom: March – May.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area.
Ceanothus gloriosus var. porrectus Mt. Vision ceanothus	—	—	1B.3	Low shrub occurring in closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland on Pt. Reyes; sandy soils. Elevation: 80–1,000 ft. Bloom: February – May	Not expected to occur. The project area is outside the known distribution of this species.
Ceanothus masonii Mason's ceanothus	—	SR	1B.2	Shrub in chaparral on ridgelines or rocky slopes in chaparral or transition zone. Sometimes on serpentine. Elevation: 755–1,640 ft. Bloom: March – April.	Not expected to occur. Serpentine soils and chaparral habitat suitable for this species are not present in the project area.
Centromadia parryi ssp. parryi Pappose tarplant	—	—	1B.2	Annual herb in chaparral, coastal prairie, coastal salt marshes, swamps, meadows, seeps, alkaline springs, valley and foothill grassland; vernally mesic, often alkaline sites. Elevation: 0–1,380 ft. Bloom: May – November.	Not expected to occur. Marsh, swamp, or other wetland habitats suitable for this species are not present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	—	—	1B.2	Annual plant occurring in marshes and swamps, usually in coastal salt marsh with *Salicornia, Distichlis, Jaumea, Spartina,* etc. Elevation: 0–35 ft Boom: June – October.	Not expected to occur. Coastal marsh or swamp habitat suitable for this species is not present in the project area.
Chloropyron molle ssp. molle Soft salty bird's-beak	FE	SR	1B.2	Annual in marshes, swamps, and coastal salt marsh with *Distichlis, Salicornia,* and *Frankenia.* Elevation: 0–10 ft. Bloom: June – November.	Not expected to occur. Coastal marsh or swamp habitat suitable for this species is not present in the project area.
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	—	—	1B.2	Mat forming annual found in coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub especially in sandy soil on terraces and slopes. Elevation: 10–705 ft. Bloom: April – July.	Not expected to occur. Coastal habitats suitable for this species are not present in the project area.
Chorizanthe valida Sonoma spineflower	FE	SE	1B.1	Annual found in coastal prairie with sandy soil. Elevation: 35–1,000 ft. Bloom: June – August.	Not expected to occur. Coastal prairie habitat suitable for this species is not present in the project area.
Cicuta maculata var. bolanderi Bolander's water-hemlock	—	—	1B.1	Perennial herb located in marshes and swamps in fresh or brackish water especially in coastal wetlands. Elevation: 0–655 ft. Bloom: July – September.	Not expected to occur. Coastal marsh or swamp habitat suitable for this species is not present in the project area.
Cirsium andrewsii Franciscan thistle	—	—	1B.1	Biennial herb occurring on bluffs, ravines or seeps in broadleaved upland forest, coastal bluff scrub, coastal prairie, or coastal scrub . Elevation: 0–490 ft. Bloom: March – July.	Not expected to occur. Ravines, seeps, or coastal habitatsuitable for this species is not present in the project area.
Cirsium hydrophilum var. vaseyi Mt. Tamalpais thistle	—	—	1B.2	Biennial herb found in serpentine seeps within broadleaved upland forest, chaparral, and meadows. Elevation: 785–985 ft. Bloom: May – August.	Not expected to occur. Serpentine seep habitat suitable for this species is not present in the project area.
Clarkia franciscana Presidio clarkia	FE	SE	1B.1	Annual herb in serpentine outcrops in grassland or scrub. Elevation: 80–1,100 ft. Bloom: May – July.	Not expected to occur. Serpentine habitats suitable for this species are not present in the project area.
Collinsia corymbosa Round-headed Chinese-houses	—	—	1B.2	Annual herb in coastal dunes, sandy Elevation: 0–65 ft. Bloom: April – June.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Collinsia multicolor San Francisco collinsia	—	—	1B.2	Annual herb occurring in closed-cone coniferous forest, moist shady coastal scrub on decomposed shale (mudstone) mixed with humus; sometimes on serpentine. Elevation: 100–900 ft. Bloom: March – May.	**May occur.** Coniferous forest habitat potentially suitable for this species is present in the project area.
Delphinium bakeri Baker's larkspur	FE	SE	1B.1	Perennial herb found in broadleafed upland forest, coastal scrub, valley and foothill grassland on northwest facing, decomposing shale slopes. Elevation: 260–1,000 ft. Bloom: March – May.	Not expected to occur. The project area is outside the known distribution of this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Delphinium luteum Golden larkspur	FE	SR	1B.1	Perennial herb occurring in chaparral, coastal prairie, coastal scrub with north-facing rocky or shale slopes. Elevation: 0–330 ft. Bloom: March – May.	Not expected to occur. Rocky, coastal habitat suitable for this species is not present in the project area.
Dermatocarpon meiophyllizum Silverskin lichen	—	—	2B.3	Lichen found in coastal prairie, lower montane coniferous forest, North Coast coniferous forest, subalpine coniferous forest, and upper montane coniferous forest usually aquatic to semi-aquatic, within splash zone of lakes or streams. Preferred habitat is undisturbed, exposed streams with large rocks or bedrock at high elevations, but it is also found in cold, deep canyons at lower elevations as well as lake margins, rocky soils, and streambanks. Elevation: 970–11,465 ft.	**May occur.** Streambanks and riparian habitat potentially suitable for this species are present in the project area.
Dirca occidentalis Western leatherwood	—	—	1B.2	Poisonous deciduous shrub occurring in broadleaved upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, North coast coniferous forest, riparian forest, and riparian woodland. Prefers brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Generally north or northeast facing slopes, generally in fog belt. Elevation: 80–1,395 ft. Bloom: January – March.	**May occur.** Chaparral, woodlands, coniferous forests, and riparian habitats potentially suitable for this species are present in the project area.
Downingia pusilla Dwarf downingia	—	—	2B.2	Annual herb growing in valley and foothill grassland, vernal pools and margins. Elevation: 5–1,460 ft. Bloom: March – May	Not expected to occur. Vernal pool habitat suitable for this species is not present in the project area.
Entosthodon kochii Koch's cord moss	—	—	1B.3	Moss found in cismontane woodland growing on soil on riverbanks. Elevation: 590–3,280 ft.	**May occur.** Riparian habitat potentially suitable for this species is present in the project area.
Eriogonum luteolum var. caninum Tiburon buckwheat	—	—	1B.2	Annual herb occurring in chaparral, cismontane woodland, coastal prairie, valley and foothill grassland with gravelly, sandy, serpentinite soils. Elevation: 0–2,295 ft. Bloom: May – September.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area. Observations have been recorded within one mile of the project area.
Erysimum concinnum Bluff wallflower	—	—	1B.2	Biennial herb growing near coastal bluff scrub, coastal dunes, coastal prairie, cliffs, coastal bluffs and dunes. Elevation: 0–605 ft. Bloom: February – July.	Not expected to occur. Dune habitat suitable for this species is not present in the project area.
Fissidens pauperculus Minute pocket moss	—	—	1B.2	North Coast coniferous forest. Moss growing on damp soil along the coast in dry streambeds and on active stream banks. Elevation: 35–3,360 ft.	**May occur.** Riparian 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]
Fritillaria affinis Marin checker lily	—	—	1B.1	Perennial bulb occurring in coastal bluff scrub, coastal prairie, coastal scrub, oak or pine scrub. Occurrences reported from canyons and riparian areas as well as rock outcrops and prairies. On serpentine. Elevation: 50–490 ft. Bloom: February – May.	Not expected to occur. Coastal habitat and serpentine soils suitable for this species are not present in the project area.
Fritillaria liliacea Fragrant fritillary	—	—	1B.2	Perennial bulb preferring heavy soil, open hills, fields near coast. Also found in cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Serpentinite soils reported though usually on clay, in grassland. Elevation: 10–1,345 ft. Bloom: February – April.	**May occur.** Grasslands and woodlands in the project area may provide habitat suitable for this species.
Gilia capitata ssp. chamissonis Blue coast gilia	—	—	1B.1	Annual herb found on coastal sandhills, coastal dunes, and coastal scrub. Elevation: 5–655 ft. Bloom: April – July.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Gilia capitata ssp. tomentosa woolly-headed gilia	—	—	1B.1	Annual herb populating sea bluffs and serpentine outcrops as well as coastal bluff scrub, valley and foothill grassland with rocky outcrops. Elevation: 35–720 ft. Bloom: May – July.	Not expected to occur. Coastal bluff scrub, grassland with rocky outcrops, and serpentine soil habitats suitable for this species are not present in the project area.
Gilia millefoliata Dark-eyed gilia	—	—	1B.2	Stabilized coastal dunes near San Francisco. Elevation: 5–100 ft. Bloom: April – July.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Helianthella castanea Diablo helianthella	—	—	1B.2	Perennial taproot from broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils. Often in partial shade. Elevation: 195–4,265 ft. Bloom: March – June.	**May occur.** Chaparral, broadleaved forest, coniferous forest, woodlands, and grassland habitats suitable for this species are present in the project area.
Hemizonia congesta ssp. congesta Congested-headed hayfield tarplant	—	—	1B.2	Aromatic annual herb found in valley and foothill grassland, grassy valleys and hills. Often in fallow fields; sometimes along roadsides. Elevation: 65–1,835 ft. Bloom: April – November.	**May occur.** Grasslands habitat potentially suitable for this species is present in the project area may provide habitat suitable for this species. Observations have been recorded within one mile.
Hesperolinon congestum Marin western flax	FT	ST	1B.1	Annual herb occurring in chaparral, valley and foothill grassland. Serpentine endemic. Elevation: 15–1,215 ft. Bloom: April – July.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area.
Heteranthera dubia Water star-grass	—	—	2B.2	Perennial herb. Generally submersed in still or moving water like in marshes and swamps. Alkaline requires a pH of 7 or greater, usually in slightly eutrophic waters. Elevation: 100–4,905 ft. Bloom: July – October.	Not expected to occur. Alkaline marsh or swamp habitat suitable for this species is not present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Holocarpha macradenia Santa Cruz tarplant	FT	SE	1B.1	Aromatic annual in grassy areas of coastal prairie, coastal scrub, valley and foothill grassland with sandy or clay soils often with nonnatives. Elevation: 35–720 ft. Bloom: June – October.	**May occur.** Grassland habitat potentially suitable for this species is present in the project area.
Horkelia cuneata var. sericea Kellogg's horkelia	—	—	1B.1	Perennial herbs from chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub with sandy or gravelly openings. Prefers old dunes, coastal sandhills. Elevation: 35–655 ft. Bloom: April – September.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Horkelia marinensis Point Reyes horkelia	—	—	1B.2	Perennial occurring in sandy coastal flats, coastal dunes, coastal prairie, coastal scrub as well as grassland and scrub communities. Elevation: 15–2,473 ft. Bloom: May – September.	Not expected to occur. Coastal habitat suitable for this species is not present in the project area.
Horkelia tenuiloba Thin-lobed horkelia	—	—	1B.2	Perennial herb occurring in broadleaved upland forest, chaparral, valley and foothill grassland with mesic openings and sandy soils. Elevation: 165–1,640 ft. Bloom: May – July.	**May occur.** Broadleaved forest, chaparral, and grassland habitat suitable for this species is present in the project area.
Hypogymnia schizidiata Island tube lichen	—	—	1B.3	Chaparral, closed-cone coniferous forest, on bark and wood of hardwoods and conifers. Elevation: 1,180–1,330 ft.	**May occur.** Chaparral, coniferous forest, and woodland habitat suitable for this species is present in the project area.
Kopsiopsis hookeri Small groundcone	—	—	2B.3	Parasitic rhizomatous herb occurring in open woodland, mixed conifer forest, generally on *Gaultheria shallon*, occasionally on *Arbutus menziesii* or *Arctostaphylos uva-ursi.* Generally North Coast coniferous forest, open woods, and shrubby places. Elevation: 295–29,905 ft. Bloom: April – August.	**May occur.** *Arbutus menziesii* in woodland and coniferous forest habitat potentially suitable for this species is present in the project area.
Lasthenia californica ssp. macrantha Perennial goldfields	—	—	1B.2	Perennial herb with fibrous roots found on coastal bluff scrub, coastal dunes, and coastal scrub and grasslands. Elevation: 15–1,705 ft. Bloom: January – November.	Not expected to occur. Coastal habitat suitable for this species is not present in the project area.
Lasthenia conjugens Contra Costa goldfields	FE	—	1B.1	Annual herb located within cismontane woodland, playas, valley and foothill grassland, vernal pools, swales, low depressions, and in open grassy areas (mesic). Elevation: 0–1,540 ft. Bloom: March – June.	Not expected to occur. Mesic habitat suitable for this species is not present in the project area.
Layia carnosa Beach layia	FT	SE	1B.1	Annual plant occurring in coastal dunes and coastal scrub, on sparsely vegetated, semi-stabilized dunes, usually behind foredunes. Elevation: 0–195 ft. Bloom: March – July.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Leptosiphon rosaceus Rose leptosiphon	—	—	1B.1	Annual low growing herb found near open grassy slopes or coastal bluffs in coastal bluff scrubland. Elevation: 0–330 ft. Bloom: April – July.	Not expected to occur. Coastal bluff habitat suitable for this species is not present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Lessingia germanorum San Francisco lessingia	FE	SE	1B.1	Annual taproot occurring in open, sandy soils in coastal scrub, on remnant dunes relatively free of competing plants. Elevation: 80–360 ft. Bloom: July – November.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Lessingia micradenia var. micradenia Tamalpais lessingia	—	—	1B.2	Annual taproot found in chaparral, valley and foothill grassland with thin, gravelly soil of serpentine outcrops, roadcuts. Elevation: 330–1,640 ft. Bloom: July – October.	Not expected to occur. Observations have been recorded within one mile, but serpentine soils suitable for this species are not present in the project area
Lilaeopsis masonii Mason's lilaeopsis	—	SR	1B.1	Perennial herb located in intertidal marshes, stream banks and riparian scrub. Also in tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion with brackish or freshwater. Elevation: 0–35 ft. Bloom: April – November.	Not expected to occur. Marsh or tidal habitat suitable for this species is not present in the project area.
Lilium maritimum Coast lily	—	—	1B.1	Perennial bulb found in coastal prairie or scrub, peatland, gaps in closed-cone-pine forest, broadleaved upland forest, North coast coniferous forest with sandy soil, often on raised hummocks or bogs; today mostly roadsides. Elevation: 15–1,560 ft. Bloom: May – August.	**May occur.** Riparian habitat potentially suitable for this species is present in the project area.
Lilium pardalinum ssp. pitkinense Pitkin marsh lily	FE	SE	1B.1	Perennial bulb occurring in marshes, valley oak scrub, cismontane woodland, meadows and seeps. Often mesic, sandy soils. Elevation: 115–215 ft. Bloom: June – July.	**May occur.** Cismontane woodland and riparian habitat potentially suitable for this species is present in the project area.
Microseris paludosa Marsh microseris	—	—	1B.2	Perennial herb located in moist grasslands and open cismontane woodland, closed-cone coniferous forest, coastal scrub, and valley and foothill grassland. Elevation: 15–1,165 ft. Bloom: Apr- June.	**May occur.** Coniferous forest, cismontane woodland, and grassland habitat suitable for this species is present in the project area.
Navarretia leucocephala ssp. bakeri Baker's navarretia	—	—	1B.1	Prickly annual located in vernal pools as well as meadows and seeps, valley and foothill grassland and swales. Occurring with adobe or alkaline soils in mesic environments. Elevation: 15–5,710 ft. Bloom: Apr – July.	Not expected to occur. Vernal pool or other wetland habitat suitable for this species is not present in the project area.
Navarretia rosulata Marin County navarretia	—	—	1B.2	Annual in chaparral or closed-cone coniferous forest with rocky, serpentinite soils. Elevation: 655–2,085 ft. Bloom: May – July.	Not expected to occur. Observations have been recorded within one mile, but serpentine habitat suitable for this species is not present in the project area.
Pentachaeta bellidiflora White-rayed pentachaeta	FE	SE	1B.1	Annual taproot occurs in cismontane woodland, valley and foothill grassland common with open dry rocky slopes and grassy areas, sometimes on soils derived from serpentine bedrock. Elevation: 115–2,035 ft. Bloom: March – May.	**May occur.** Dry slopes in cismontane woodland and grassland habitat 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]
Phacelia insularis var. continentis North Coast phacelia	—	—	1B.2	Annual herb occurring in coastal bluff scrub, coastal dunes with sandy soil, sometimes rocky habitats. Elevation: 35–560 ft. Bloom: March – May.	Not expected to occur. Coastal dune habitat suitable for this species is not present in the project area.
Plagiobothrys chorisianus var. chorisianus Choris' popcornflower	—	—	1B.2	Annual herb located in chaparral, coastal prairie, coastal scrub as well as mesic environments like grassy moist places, ephemeral drainages and costal scrub. Elevation: 10–525 ft. Bloom: March – June.	**May occur**. Ephemeral drainages and chaparral habitat suitable for this species is present in the project area.
Plagiobothrys diffusus San Francisco popcornflower	—	SE	1B.1	Annual herb from moist places and seeps as well as coastal prairie, valley and foothill grassland. Historically from grassy slopes with marine influence. Elevation: 195–1,180 ft. Bloom: March – June.	**May occur.** Grassland habitat suitable for this species is present in the project area.
Plagiobothrys glaber Hairless popcornflower	—	—	1A	Annual herb found in marshes and swamps, meadows and seeps, coastal salt marshes and alkaline meadows. Elevation: 50–590 ft. Bloom: March – May.	Not expected to occur. Marsh or swamp habitat suitable for this species is not present in the project area.
Plagiobothrys mollis var. vestitus Petaluma popcornflower	—	—	1A	Annual herb; presumed extinct but would be found near wet sites in grassland. Elevation: 25–165 ft. Bloom: June – July.	Not expected to occur. The project area is outside the historic distribution of this species, and this species is presumed extinct.
Pleuropogon hooverianus North Coast semaphore grass	—	ST	1B.1	Perennial rhizomatous herb located in broadleaved upland forest, meadows and seeps, North coast coniferous forest, wet grassy, usually shady areas. Sometimes in freshwater marsh; associated with forest environments with openings (mesic). Elevation: 35–2,200 ft. Bloom: April – June.	**May occur.** Openings and wet areas of coniferous and broadleaved forest and riparian habitat suitable for this species is present in the project area.
Polemonium carneum Oregon polemonium	—	—	2B.2	Perennial herb occurring in coastal prairie, coastal scrub, lower montane coniferous forest. Generally moist to dry, open areas. Elevation: 0–6,005 ft. Bloom: April – September.	**May occur.** Open areas of coniferous forest habitat suitable for this species is present in the project area.
Quercus parvula var. tamalpaisensis Tamalpais oak	—	—	1B.3	Shrub located in lower montane coniferous forest and cismontane woodland understories. Elevation: 330–2,460 ft. Bloom: March – April.	**May occur**. Woodlands and coniferous forest habitat suitable for this species is present in the project area.
Sagittaria sanfordii Sanford's arrowhead	—	—	1B.2	Perennial herb found in marshes and swamps in standing or slow-moving freshwater ponds, and ditches. Elevation: 0–2,135 ft. Bloom: May- October.	Not expected to occur. Marsh or swamp habitat suitable for this species is not present in the project area.
Sanicula maritima Adobe sanicle	—	SR	1B.1	Biennial perennial herb found within chaparral, coastal prairie, meadows and seeps, valley and foothill grassland. Moist clay or ultramafic soils. Elevation: 100–785 ft. Bloom: February – May.	**May occur.** Chaparral and grassland habitat 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]
Sidalcea calycosa ssp. rhizomata Point Reyes checkerbloom	—	—	1B.2	Perennial rhizomatous herb occurring in freshwater marshes, wetland, and riparian habitat near the coast of Pt. Reyes. Elevation 10–245 ft. Bloom: April – September.	**Known to occur.** Observations have been recorded in or adjacent to the project area (CNDDB 2022a). Riparian habitat suitable for this species is present in the project area.
Sidalcea hickmanii ssp. viridis Marin checkerbloom	—	—	1B.1	Perennial herb found on dry ridges near the coast, chaparral. Endemic to serpentine soils; sometimes appears after burns. Elevation: 165–1,410 ft. Bloom: May – June.	Not expected to occur. Observations have been recorded within 1 mile, however serpentine soils suitable for this species are not present in the project area
Silene scouleri ssp. scouleri Scouler's catchfly	—	—	2B.2	Perennial herb found in coastal bluff scrub, coastal prairie, valley and foothill grassland by rocky slopes and costal bluffs. Elevation: 0–1,970 ft. Bloom: June – August.	Not expected to occur. Coastal habitat suitable for this species is not present in the project area.
Silene verecunda San Francisco campion	—	—	1B.2	Perennial herb occurring in open areas, chaparral, sagebrush, oak woodland, pinyon/juniper woodland, conifer forest containing sandy soil and often mudstone or shale. Elevation: 100–2,115 ft. Bloom: March – July.	**May occur.** Openings in chaparral, woodland, and coniferous forest habitat suitable for this species is present in the project area.
Spergularia macrotheca var. longistyla Long-styled sand-spurrey	—	—	1B.2	Strong perennial herb located in alkaline marshes and swamps, meadows and seeps, mud flats, meadows, and hot springs. Elevation: 0–835 ft. Bloom: February – March.	Not expected to occur. Alkaline marsh or swamp habitat suitable for this species is not present in the project area.
Stebbinsoseris decipiens Santa Cruz microseris	—	—	1B.2	Annual herb that produces milky sap. Located in broadleaved upland forest, chaparral, closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland. Prefers open areas in loose or disturbed soil, usually derived from sandstone, shale, or serpentine. Also found on coastal sandy, open sites on seaward slopes. Elevation: 35–1,640 ft. Bloom: April – May.	**May occur.** Open areas in woodland, grassland, chaparral, and coniferous forest habitat suitable for this species is present in the project area.
Streptanthus anomalus Mount Burdell jewelflower	—	—	1B.1	Annual herb located in cismontane woodland openings, grassy openings and serpentinite. Elevation: 165–490 ft. Bloom: May – June.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area. The project area is outside the known distribution of this species.
Streptanthus batrachopus Tamalpais jewelflower	—	—	1B.3	Annual herb found in chaparral, closed-cone coniferous forest. Prefers serpentinite talus and serpentine outcrops. Elevation: 1,000–2,135 ft. Bloom: April – July.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area.
Streptanthus glandulosus ssp. niger Tiburon jewelflower	FE	SE	1B.1	Annual herb occurring in valley and foothill grassland, and shallow, rocky serpentine slopes. Elevation: 100–490 ft. Bloom: May – June.	Not expected to occur. Serpentine soils suitable for this species are not present in the project area. The project area is outside the known distribution of this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Streptanthus glandulosus ssp. pulchellus Mt. Tamalpais bristly jewelflower	—	—	1B.2	Annual herb located in chaparral and valley and foothill grassland. Sometimes on serpentinite soil. Prefers dry, open grassland and open conifer/oak woodland. Elevation: 490–2,625 ft. Bloom: May – July.	**May occur.** Chaparral, woodland, and grassland habitat suitable for this species is present in the project area. Observations of this species have been recorded within one mile.
Symphyotrichum lentum Suisun marsh aster	—	—	1B.2	Perennial herb from marshes and swamps, most often seen along sloughs with *Phragmites*, *Scirpus*, blackberry, *Typha*, etc. Elevation: 0–10 ft Bloom: May – November.	Not expected to occur. Marsh, swamp, or slough habitat suitable for this species is not present in the project area.
Trifolium amoenum Two-fork clover	FE	—	1B.1	Robust annual found in coastal bluff scrub, valley and foothill grassland, open sunny sites, and swales. Sometimes on serpentine soil. Most recently cited on roadside and eroding cliff face with moist, heavy soils. Elevation: 15–1,360 ft. Bloom: April – June.	**May occur.** Open areas in grassland habitat suitable for this species is present in the project area.
Trifolium hydrophilum Saline clover	—	—	1B.2	Generally fleshy annual occurring in salt marshes, open areas in alkaline soils of valley and foothill grassland, vernal pools. Elevation: 0–985 ft. Bloom: April – June.	Not expected to occur. Vernal pool and marsh habitat suitable for this species is not present in the project area.
Trifolium polyodon Pacific Grove clover	—	SR	1B.1	Annual herb found within closed-cone pine forest, moist meadows, stream sides, coastal prairie, valley and foothill grassland. Consisting of granitic and mesic environments, along small springs and seeps in grassy openings. Elevation: 15–1,395 ft. Bloom: April – June.	**May occur**. Grassland and riparian habitat suitable for this species is present in the project area.
Triphysaria floribunda San Francisco owl's-clover	—	—	1B.2	Annual forb from coastal prairie, coastal scrub, valley and foothill grassland. Sometimes on serpentinite substrate. Elevation: 35–525 ft. Bloom: April – June.	Not expected to occur. Coastal habitat suitable for this species is not present in the project area.
Triquetrella californica Coastal triquetrella	—	—	1B.2	Native moss that grows within 30m from the coast in coastal scrub, coastal bluff scrub, grasslands, and in open gravels on roadsides, hillsides, rocky slopes, and fields. Also on gravel or thin soil over outcrops. Elevation: 35–330 ft.	Not expected to occur. Coastal habitat and rocky soils suitable for this species are not present in the project area.
Viburnum ellipticum Oval-leaved viburnum	—	—	2B.3	Sender deciduous shrub occurring in chaparral, cismontane woodland, lower montane coniferous forest. Prefers yellow-pine forest on north facing slopes. Elevation: 705–4,595 ft. Bloom: May – June.	**May occur.** Chaparral, woodland, and coniferous forest habitat 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)

FT Federally Listed as Threatened (legally protected by ESA)

State:

SE State Listed as Endangered (legally protected by CESA)

ST State Listed as Threatened (legally protected by CESA)

SR State Listed as Rare (legally protected by NPPA)

California Rare Plant Ranks (CRPR):

1A Plant species that are presumed extirpated or extinct because they have not been seen or collected in the wild in California for many years. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.

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 project area.

Sources: CNDDB 2022a

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

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Amphibians and Reptiles				
Ambystoma californiense pop. 3 California tiger salamander - Sonoma County DPS	FE	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur: The species is not known to occur within Marin County. The nearest documented occurrence is from the US Coast Guard Training Center near Petaluma, Sonoma County (CNDDB 2022a).
Chelonia mydas Green sea turtle	FE	SE	Green turtles are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting.	Not expected to occur: The project area does not contain the open ocean or beach habitat required for the species.
Dicamptodon ensatus California giant salamander	—	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: The species has been documented to occur within the forests of western and central Marin County (CNDDB 2022a) and aquatic and upland habitat suitable for the species is present within the project area.
Emys marmorata Western pond turtle	—	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: The species has been documented to occur south of the project area within Alpine Lake, Marin County (CNDDB 2022a), and the pond within the project area and surrounding uplands within the project area are potentially suitable for the species.
Rana boylii pop. 1 Foothill yellow-legged frog - North Coast DPS	—	SSC	Northern coast ranges north of San Francisco Bay Estuary, Klamath Mountains, and Cascade Range. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	May occur: The species has been recently documented to occur within Cascade Creek just south of the project area (CNDDB 2022a) and several larger drainages within the project area that maintain water in pools for at least 15 weeks provide aquatic habitat suitable for the species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Rana draytonii California red-legged frog	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.	**May occur:** The larger drainages and the pond within the project area may provide habitat suitable for the species. The species was documented to occur east of Fairfax in the within the Fairfax Creek Drainage in 2018 (iNaturalist 2023) approximately 1.2 miles from the project area. The species has also been detected northwest of the project area, and the nearest known detection is from the Lagunitas Creek drainage (CNDDB 2022a) approximately 4.5 miles west of the project area.
Taricha rivularis Red-bellied newt	—	SSC	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake 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 of this species (CNDDB 2022a).
Birds				
Agelaius tricolor Tricolored blackbird	—	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 miles of the colony	Not expected to occur: While some riparian vegetation (i.e., tules) is present around the pond within the project area, the distance (approximately 5 miles) between the pond and the closest foraging habitat (irrigated crop and or large marshes) makes it unlikely that the project area would be suitable for the species, which usually will travel between 1 and 4 miles to forage (Hamilton 2004).
Asio flammeus Short-eared owl	—	SSC	Found in swamp lands, both fresh and salt; lowland meadows; and irrigated alfalfa fields. Tule patches or tall grass needed for nesting and daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not expected to occur: While tules are present around the pond within the project area, the size of this habitat patch and the level of typical human disturbance from campers using the pond during the nesting season makes it unlikely that this habitat would be suitable for the species.
Athene cunicularia Burrowing owl	—	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 grassland habitat within the project area is relatively fragmented, isolated, and subject to regular human disturbance from shooting, camping, mountain biking and other recreational activities during the nesting season. Therefore, it is unlikely that burrowing owl would nest within the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Brachyramphus marmoratus Marbled murrelet	FT	ST	Lower montane coniferous forest, old growth, redwood. Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas fir.	Not expected to occur: Marbled murrelet is not documented to occur within Marin County (CNDDB 2022a). Furthermore, the second growth redwood (*Sequoia sempervirens*) and Douglas fir (*Pseudotsuga menziesii*) trees within the project site are not likely to be large enough to provide nesting habitat for the species.
Charadrius nivosus nivosus Western snowy plover	FT	SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not expected to occur: The sandy beach and similar habitat required for this species is not present within the project area.
Circus hudsonius Northern harrier	—	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienegas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not expected to occur: The small amount of marsh habitat present around the pond within the project area is too small and the level of typical human disturbance from campers using the pond during the nesting season too great for this habitat to be suitable for nesting by the species.
Coccyzus americanus Yellow-billed cuckoo	FT	SE	Wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland and dense thickets along streams and marshes. Nests are often placed in willows along streams and rivers, with nearby cottonwoods serving as foraging sites.	Not expected to occur: While small pockets of riparian habitat occur within the project area, these are small and isolated within other forest types. Therefore, these locations are not likely to support nesting by the species.
Coturnicops noveboracensis Yellow rail	—	SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	Not expected to occur: The project area is outside of the known breeding range of the species (Sterling 2008). In addition, the small amount of marsh habitat present around the pond within the project area is small and isolated and not likely to provide overwintering habitat for this species.
Cypseloides niger Black swift	—	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: The cliff and waterfall habitat required for this species is not present within the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Elanus leucurus White-tailed kite	—	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	**May occur:** White-tailed kite has been documented to occur within Marin County (CNDDB 2022a), and the oak woodlands on the project area provide nesting habitat potentially suitable for this species.
Falco peregrinus anatum American peregrine falcon	FD	SD, FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, humanmade structures. Nest consists of a scrape or a depression or ledge in an open site.	Not expected to occur: Habitat suitable for nesting peregrine falcons (e.g., high cliffs, buildings) is not present within or directly adjacent to the project area.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	—	SSC	Resident of the San Francisco Bay region, in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**May occur:** The small amount of marsh habitat present around the pond within the project area is small and isolated; however, the species known to use small and isolated habitats (Gardali and Evens 2008), and the species is known to occur within Marin County (CNDDB 2022a).
Laterallus jamaicensis coturniculus California black rail	—	ST, FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur: The small amount of marsh habitat present around the pond within the project area is too small and the level of typical human disturbance from campers using the pond during the nesting season too great for this habitat to be suitable for nesting by the species.
Melospiza melodia pusillula Alameda song sparrow	—	SSC	Resident of salt marshes bordering south arm of San Francisco bay. Inhabits *Salicornia* marshes; nests low in *Grindelia* bushes (high enough to escape high tides) and in *Salicornia*.	Not expected to occur: The salt marsh habitat required for this species is not present within the project area, and the project area is outside of the species range.
Melospiza melodia samuelis San Pablo song sparrow	—	SSC	Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the *Salicornia* marshes; nests in *Grindelia* bordering slough channels	Not expected to occur: The salt marsh habitat required for this species is not present within the project area.
Rallus obsoletus obsoletus California Ridgway's rail	FE	SE, FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed (*Salicornia* spp.), but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not expected to occur: The salt marsh habitat required for this species is not present within the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Riparia riparia Bank swallow	—	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur: The vertical banks near water that are required for this colonial nester are not present within the project area.
Setophaga petechia Yellow warbler	—	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.	**May occur:** Riparian habitat is present within the project area. This habitat provides nesting habitat potentially suitable for the species.
Sterna antillarum browni California least tern	FE	SE	Occurs along the immediate coast of California from San Francisco Bay south to the Mexican border. Unfrequented sandy beaches close to estuaries and coastal bays had historically served as nesting sites for this species, but by the 1960s, suitable nesting areas were severely reduced due primarily to coastal development and intense human recreational use of beaches.	Not expected to occur: The project area does not contain the beach habitat required for this species, and is outside of the species known current range.
Strix occidentalis caurina Northern spotted owl	FT	ST	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:** Nests have been documented to occur within and adjacent to the project area (CNDDB 2022b). The dense forested habitats in the project area provide nesting and foraging habitat suitable for this species.
Fish				
Acipenser medirostris Green sturgeon	FT	—	Spawns in the Sacramento, Feather and Yuba rivers. Presence in Upper Stanislaus and San Joaquin rivers may indicate spawning. Non-spawning adults occupy marine/ estuarine waters. Delta estuary is important for rearing juveniles. Spawning occurs primarily in cool (11–15 C) sections of mainstem rivers in deep pools (25–30 feet) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Not expected to occur: The project area does not contain the riverine, marine, or estuarine habitat required for this species, and is outside of the species known current range.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Eucyclogobius newberryi Tidewater goby	FE	—	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River, Humboldt County. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not expected to occur: The project area does not contain the brackish water habitat required for this species.
Hesperoleucus venustus subditus Southern coastal roach	—	SSC	Found in the drainages of Tomales Bay, northern San Francisco Bay, and Monterey Bay.	Not expected to occur: The project area is upstream from total fish passage blockage on Fairfax Creek (CNDDB 2023), and while water may be present in pools on the largest creeks within the project area for most of the year, they are not perennial streams that would support a fishery.
Hypomesus transpacificus Delta smelt	FT	ST	Delta smelt can tolerate a wide range of salinity and temperatures, but are generally found in brackish water below 25 degrees Celsius. Shallow, fresh or slightly brackish backwater sloughs and edge waters with good water quality and substrate are used for spawning.	Not expected to occur: The project area does not contain the riverine and slough habitat required for this species, and is outside of the species known current range.
Oncorhynchus kisutch pop. 4 Coho salmon (central California coast ESU)	FE	SE	Occurs in rivers and streams that are open to the ocean and bays along the California coast. Requires beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Not expected to occur: The project area is upstream from total fish passage blockage on Fairfax Creek (CNDDB 2023), and while water may be present in pools on the largest creeks within the project area for most of the year, they are not perennial streams that would support a fishery.
Oncorhynchus mykiss irideus pop. 8 Steelhead (Central California Coast DPS)	FT	—	Includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo bays.	Not expected to occur: The project area is upstream from total fish passage blockage on Fairfax Creek (CNDDB 2023), and while water may be present in pools on the largest creeks within the project area for most of the year, they are not perennial streams that would support a fishery.
Pogonichthys macrolepidotus Sacramento splittail	—	SSC	Endemic to the lakes and rivers of the central valley, but now confined to the Delta, Suisun Bay, and associated marshes. Slow-moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not expected to occur: The project area does not contain the riverine and slough habitat required for this species, and is outside of the species known current range.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Spirinchus thaleichthys Longfin smelt	FP	ST	Euryhaline, nektonic, and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15–30 ppt, but can be found in completely freshwater to almost pure seawater.	Not expected to occur: The project area does not contain the estuary aquatic habitat required for this species.
Thaleichthys pacificus Eulachon	FT	—	Found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris.	Not expected to occur: The project area is outside of the known range of the species.
Invertebrates				
Bombus occidentalis Western bumble bee	—	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: Habitat suitable for the species is present within the project area; however, there have been no documented occurrences within central and eastern Marin County since 1963 (CNDDB 2022a), and the project is outside of the current distribution of the species (The Xerces Society 2018).
Danaus plexippus plexippus pop. 1 Monarch - California overwintering population	FP	—	Winter roost sites extend along the coast from northern Mendocino County to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**May occur:** The forest stands within the project area are more than 6 miles from the coast or San Francisco Bay and greater than 500 feet in elevation. Therefore the project area is too far from the coast and Bay to provide overwintering habitat for monarch butterflies (CBD et al. 2014). However, there are known occurrences of milkweed host plants in the project area and monarch breeding has been documented to occur within Fairfax (Western Monarch and Milkweed Mapper 2023).
Euphydryas editha bayensis Bay checkerspot butterfly	FT	—	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *Orthocarpus purpurscens* are the secondary host plants.	Not expected to occur: The project area is outside of the known range of the species which is confined to within 9 miles of Coyote Ridge, Santa Clara County (USFWS 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Icaricia icarioides missionensis Mission blue butterfly	FE	—	Inhabits grasslands of the San Francisco Peninsula. Three larval host plants: *Lupinus albifrons, Lupinus variicolor*, and *Lupinus formosus*, of which *Lupinus albifrons* is favored.	Not expected to occur: The project area is outside of the known range of the species which is confined to the San Francisco Peninsula.
Speyeria callippe callippe Callippe silverspot butterfly	FE	—	Restricted to the northern coastal scrub of the San Francisco Peninsula. Host plant is *Viola pedunculata*. Most adults found on east-facing slopes; males congregate on hilltops in search of females.	Not expected to occur: The project area is outside of the known range of the species which is confined to the San Francisco Peninsula.
Syncaris pacifica California freshwater shrimp	FE	SE	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: The species has not been documented to occur within the Fairfax Creek drainage (USFWS 2022b).
Mammals				
Antrozous pallidus Pallid bat	—	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:** While there are limited documented occurrences within the project region (CNDDB 2022a), bat species are frequently underreported. The larger trees and snags with cavities and infrequently used structures on the project site may provide roosting habitat suitable for this species.
Aplodontia rufa phaea Point Reyes mountain beaver	—	SSC	Coastal area of Point Reyes National Seashore in areas of springs or seepages. North-facing slopes of hills and gullies in areas overgrown with sword ferns and thimbleberries.	Not expected to occur: The project area is outside of the known range of the species which is confined to Point Reyes National Seashore.
Bassariscus astutus Ringtail	—	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	**May occur.** The project area contains suitable forested and riparian habitat for this species. There are no documented occurrences in the project region, although the species in not tracked in the CNDDB.
Corynorhinus townsendii Townsend's big-eared bat	—	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:** The species has been documented to occur within Marin County (CNDDB 2022a). The larger trees and snags with cavities and infrequently used structures on the project site may provide roosting habitat suitable for this species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Enhydra lutris nereis Southern sea otter	FT	FP	Nearshore marine environments from about Año Nuevo, San Mateo County to Point Sal, Santa Barbara County. Needs canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates	Not expected to occur: The project area does not contain marine habitat suitable for this species.
Eumetopias jubatus Steller sea lion	FD	—	Breeds on Año Nuevo, San Miguel and Farallon Islands, point St. George, and Sugarloaf. Hauls out on islands and rocks. Needs haulout and breeding sites with unrestricted access to water, near aquatic food supply and with no human disturbance.	Not expected to occur: The project area does not contain marine habitat suitable for this species.
Lasiurus frantzi Western red bat	—	SSC	Roosts primarily in trees, 2–40 ft 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:** While there are limited documented occurrences within the project region (CNDDB 2022a), bat species are frequently underreported. The oak woodland and mixed conifer forests on the project site may provide roosting habitat suitable for this species.
Microtus californicus sanpabloensis San Pablo vole	—	SSC	Salt marshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges, and herbs. Forms a network of runways leading from the burrow.	Not expected to occur: The salt marsh habitat required for this species is not present within the project area, and the project area is outside of the range of this species.
Reithrodontomys raviventris Salt-marsh harvest mouse	FE	SE, FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	Not expected to occur: The salt marsh habitat required for this species is not present within the project area, and the project area is outside of the range of this species.
Sorex ornatus sinuosus Suisun shrew	—	SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftwood and other litter above the mean hightide line for nesting and foraging.	Not expected to occur: The salt marsh habitat required for this species is not present within the project area, and the project area is outside of the range of this species.
Sorex vagrans halicoetes Salt-marsh wandering shrew	—	SSC	Salt marshes of the south arm of San Francisco Bay. Medium-high marsh 6–8 feet above sea level where abundant driftwood is scattered among *Salicornia* spp.	Not expected to occur: The salt marsh habitat required for this species is not present within the project area, and the project area is outside of the range of this species.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Taxidea taxus American badger	—	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.	Not expected to occur: American badger has been documented to occur within Marin County (CNDDB 2022a); however, the grassland and oak woodland habitat is subject to regular human disturbance during the denning season, and therefore, it is unlikely that the species would den in the project area.
Zapus trinotatus orarius Point Reyes jumping mouse	—	SSC	Primarily in bunch grass marshes on the uplands of Point Reyes. Also present in coastal scrub, grassland, and meadows. Eats mainly grass seeds with some insects and fruit taken. Builds grassy nests on ground under vegetation, burrows in winter.	Not expected to occur: The project area is outside of the range of this species, which occurs only on Point Reyes.

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

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected)

FT Federally Listed as Threatened (legally protected)

FD Federally Delisted

FP Proposed for Listing under the federal Endangered Species Act

State:

FP Fully Protected (legally protected)

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

SE State Listed as Endangered (legally protected)

ST State Listed as Threatened (legally protected)

SC State Candidate for listing (legally protected)

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: CBD et al. 2014; CNDDB 2022a; CNDDB 2022b; CNDDB 2023: Gardali and Evens 2008; Hamilton 2004; iNaturalist 2023; Sterling 2008; USFWS 2022a; USFWS 2022b; Western Monarch and Milkweed Mapper 2023; The Xerces Society 2018.

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Attachment C

Hazardous Materials

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

ENVIROSTOR

PROJECT SEARCH RESULTS

STATUS: All Statuses GO

SEARCH CRITERIA: MARIN

122 RECORDS FOUND

EXPORT TO EXCEL

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]		ALDERSLY GARDEN RETIREMENT COMMUNITY	21830003	CALMORTGAGE	NO ACTION REQUIRED	326 MISSION AVENUE	SAN RAFAEL	94901
[REPORT]		ANGEL ISLAND STATE PARK	21970002	HISTORICAL	REFER: RCRA	ANGEL ISLAND, SAN FRANCISCO BAY	TIBURON	94920
[REPORT]		ARNOLD'S AUTOMOTIVE DISMANTLERS	21500007	HISTORICAL	REFER: OTHER AGENCY	864 VALLEJO AVENUE	NOVATO	94945
[REPORT]		ARROWHEAD JEWELRY #2	21340006	HISTORICAL	REFER: OTHER AGENCY	616 CANAL STREET	SAN RAFAEL	94901
[REPORT]	[MAP]	BAHIA VISTA ELEMENTARY SCHOOL	21880002	SCHOOL EVALUATION	NO ACTION REQUIRED	125 BAHIA WAY	SAN RAFAEL	94901
[REPORT]	[MAP]	BAXTER COURT PROPERTY	71003673	TIERED PERMIT	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	714 A FRANCISCO BOULEVARD WEST	SAN RAFAEL	94901
[REPORT]	[MAP]	BAXTERS COURT AREA	21340010	STATE RESPONSE	REFER: RCRA	BAXTERS COURT	SAN RAFAEL	94901
[REPORT]		BAYVIEW BUSINESS PARK	21490001	HISTORICAL	REFER: RWQCB	PELICAN WAY & KERNER AVENUE	SAN RAFAEL	94901
[REPORT]	[MAP]	BEL MARIN KEYS UNIT V	21990001	VOLUNTARY CLEANUP	REFER: OTHER AGENCY	SOUTH OF BEL MARIN KEYS BLVD	NOVATO	94947
[REPORT]		BELLAM BOULEVARD LANDFILL	21490030	HISTORICAL	REFER: OTHER AGENCY	BELLAM BOULEVARD (AT THE END OF)	SAN RAFAEL	94901
[REPORT]		BILL'S TEXACO STATION	21550002	HISTORICAL	REFER: RWQCB	200 SAN MARIN DRIVE	NOVATO	94945
[REPORT]		BINFORD ROAD FILL SITE	21490003	HISTORICAL	REFER: OTHER AGENCY	BINFORD AND AIRPORT ROADS, NORTH & WEST	NOVATO	94947
[REPORT]	[MAP]	BLACK POINT COMMUNICATIONS FACILITY ANNEX (J09CA0075)	21970013	STATE RESPONSE	NO FURTHER ACTION	STONETREE LANE	NOVATO	94945
[REPORT]		BOLINAS ABANDONED LANDFILL	21490006	HISTORICAL	REFER: RWQCB	EAST SHORE BOLINAS LAGOON	BOLINAS	94924

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	BOLINAS AVENUE CENTER	60001614	STATE RESPONSE	ACTIVE	4&8 BOLINAS AVENUE & 21 SAN ANSELMO AVENUE	SAN ANSELMO	94960
[REPORT]	[MAP]	BOLINAS MILITARY RESERVATION	80000532	MILITARY EVALUATION	NO FURTHER ACTION	1.7 MILES NORTH WEST OF BOLINAS ON MESA ROAD AT N 37D 55' 19"; W 122D 43' 10"	BOLINAS	94924
[REPORT]		BORELLO RANCH DISPOSAL SITE - PONDS	21490027	HISTORICAL	REFER: RWQCB	WEST SIDE OF HIGHWAY 1 & MILLERTON GULCH	POINT REYES	94956
[REPORT]		BUCKS LAUNCHING	21440001	HISTORICAL	REFER: OTHER AGENCY	665 N. SAN PEDRO ROAD	SAN RAFAEL	94903
[REPORT]		CA AUTISM FOUND.- A BETTER CHANCE	21830001	CALMORTGAGE	NO ACTION REQUIRED	371 DEVON DRIVE	SAN RAFAEL	94903
[REPORT]		CAPTAINS COVE HOUSING DEVELOPMENT	21490028	HISTORICAL	REFER: RWQCB	SMITH RANCH ROAD & GALLINAS CREEK	SAN RAFAEL	94903
[REPORT]	[MAP]	CDCR - SAN QUENTIN STATE PRISON	CAD070178173	HAZ WASTE - RCRA	CLOSED	1 MAIN ST	SAN QUENTIN	949641000
[REPORT]		COMMODORE HELICOPTERS	21450003	HISTORICAL	REFER: OTHER AGENCY	240 BOLINAS AVENUE	MILL VALLEY	94941
[REPORT]		CORTE MADERA NELLIN AVE. CONNECTOR	21470001	HISTORICAL	REFER: OTHER AGENCY	NELLIN AVE AT TAMAL VISTA DR.	CORTE MADERA	94925
[REPORT]	[MAP]	COSTCO WHOLESALE #141, NOVATO	71003434	TIERED PERMIT	INACTIVE - NEEDS EVALUATION	300 VINTAGE WAY	NOVATO	94945
[REPORT]	[MAP]	DEPT. OF DEFENSE HOUSING FACILITY - HAMILTON SQUARE	80001201	STATE RESPONSE	ACTIVE - LAND USE RESTRICTIONS	970 C STREET	NOVATO	94949
[REPORT]		DIESEL ENERGY INCORPORATED	21350001	HISTORICAL	REFER: OTHER AGENCY	40 WOODLAND AVENUE	SAN RAFAEL	94901
[REPORT]	[MAP]	DRAKES BAY RANGE - (J09CA7289) MMRP	80001095	MILITARY EVALUATION	INACTIVE - NEEDS EVALUATION	1 BEAR VALLEY ROAD (POINT REYES NATIONAL SEASHORE)	POINT REYES STATION	94956
[REPORT]	[MAP]	EAST FORT BAKER	21970003	STATE RESPONSE	CERTIFIED	91 ACRES; 2 MI SOUTH OF SAUSALITO, CA	SAUSALITO	94965
[REPORT]	[MAP]	FAIR ANSELM CENTER, INC.	60001218	STATE RESPONSE	ACTIVE	709 & 711 CENTER BOULEVARD	FAIRFAX	94930
[REPORT]		FAIRCHILD DISCRETE	21360001	HISTORICAL	REFER: RWQCB	4300 REDWOOD	SAN RAFAEL	94903

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	FAIRCHILD SEMICONDUCTOR CORP DIVISION	CAD009144619	HAZ WASTE	CLOSED	4300 HIGHWAY REDWOOD HWY	SAN RAFAEL	949030000
[REPORT]	[MAP]	FAIRCHILD SEMICONDUCTOR CORP	80001607	CORRECTIVE ACTION	REFER: RWQCB	4300 REDWOOD HWY	SAN RAFAEL	949030000
[REPORT]	[MAP]	FORMER 7TH STREET CLEANERS	60002189	VOLUNTARY CLEANUP	ACTIVE	936 7TH STREET	NOVATO	94945
[REPORT]	[MAP]	FORMER MAXIM GAS PLANT OFFICE	21490013	STATE RESPONSE	NO FURTHER ACTION	4TH STREET BETWEEN A & B STREETS	SAN RAFAEL	94901
[REPORT]	[MAP]	FORT BAKER - IR/MMRP	71000063	STATE RESPONSE	INACTIVE - ACTION REQUIRED	2 MILES SOUTH OF SAUSALITO, CA	SAUSALITO	94965
[REPORT]	[MAP]	FORT BARRY (J09CA3107)	71000009	STATE RESPONSE	ACTIVE	9 MILES NORTHWEST OF SAN FRANCISCO IN TE GOLDEN GATE NATIONAL RECREATION AREA (GGNRA)	SAUSALITO	94965
[REPORT]	[MAP]	FORT CRONKITE	80000793	MILITARY EVALUATION	NO FURTHER ACTION		MARIN	
[REPORT]	[MAP]	FORT MCDOWELL	71000007	STATE RESPONSE	ACTIVE	4 MILES NORTH OF SAN FRANCISCO	ANGEL ISLAND	93933
[REPORT]	[MAP]	FRANK VAL MIL RES	80000394	MILITARY EVALUATION	NO FURTHER ACTION		SAN FRANCISCO	
[REPORT]	[MAP]	GALILEE HARBOR, PARCEL 1	21760001	VOLUNTARY CLEANUP	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	300 NAPA STREET	SAUSALITO	94965
[REPORT]		GAMBONINI MINE	21100001	HISTORICAL	REFER: RWQCB	NE OF SALMON CK TRIBUTARY TO WALKER CK	POINT REYES	94956
[REPORT]		GHILOTTI BROTHERS DISPOSAL SITE	21490009	HISTORICAL	REFER: RWQCB	FRANCISCO BOULEVARD AND PELICAN	SAN RAFAEL	94901
[REPORT]	[MAP]	GOLDEN GATE BUSINESS PARK	21490025	EVALUATION	NO FURTHER ACTION	FRANKLIN AVENUE NEXT TO NW PACIFIC RR	NOVATO	94945
[REPORT]		GRAHAM'S GARAGE	21750009	HISTORICAL	REFER: OTHER AGENCY	228 ALMONT	MILL VALLEY	94941
[REPORT]		GRIESE RADIATOR REPAIR	21750005	HISTORICAL	REFER: OTHER AGENCY	10 BAXTERS COURT	SAN RAFAEL	94901
[REPORT]	[MAP]	HAMILTON - PHASE II, CONTRACT	80000755	MILITARY EVALUATION	INACTIVE - NEEDS EVALUATION		NOVATO	

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	HAMILTON AAF	80001042	MILITARY EVALUATION	NO FURTHER ACTION		NOVATO	
[REPORT]	[MAP]	HAMILTON AAF (J09CA7062) (GSA PHASE II_LF26) IR	21970010	STATE RESPONSE	CERTIFIED / OPERATION & MAINTENANCE	HIGHWY 101; 3 MI N OF LUCAS VALLEY ROAD	NOVATO	94947
[REPORT]	[MAP]	HAMILTON AAF - (J09CA7062) - NORTH ANTENINA FIELD - IR/MMRP	21970012	STATE RESPONSE	ACTIVE	HIGHWAY 101; 3 MI N OF LUCAS VALLEY ROAD	NOVATO	94947
[REPORT]	[MAP]	HAMILTON AAF - AMMO HILL (J09CA7084)	80001047	MILITARY EVALUATION	NO FURTHER ACTION		NOVATO	94947

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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PROJECT SEARCH RESULTS

STATUS: All Statuses GO

SEARCH CRITERIA: MARIN

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		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	HAMILTON AAF - WAF HILL (J09CA7085)	80000756	MILITARY EVALUATION	NO FURTHER ACTION		NOVATO	94947
[REPORT]	[MAP]	HAMILTON ARMY AIRFIELD - BRAC	21970008	STATE RESPONSE	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	HIGHWY 101; 3 MI N OF LUCAS VALLEY ROAD	NOVATO	94947
[REPORT]	[MAP]	HAMILTON ELEMENTARY SCHOOL SITE	21970014	SCHOOL CLEANUP	ACTIVE - LAND USE RESTRICTIONS	STATE ACCESS ROAD/C STREET	NOVATO	94949
[REPORT]	[MAP]	HAMILTON GSA LOT 7	21970009	STATE RESPONSE	CERTIFIED	HIGHWY 101; 3 MI N OF LUCAS VALLEY ROAD	NOVATO	94947
[REPORT]	[MAP]	HAMILTON GSA PHASE I	21970007	STATE RESPONSE	CERTIFIED	HIGHWAY 101; 3 MI N OF LUCAS VALLEY ROAD	NOVATO	94947
[REPORT]	[MAP]	HAMILTON-PHASE II, IN-HOUSE (J09CA7082)	80000754	MILITARY EVALUATION	INACTIVE - NEEDS EVALUATION		NOVATO	
[REPORT]		HORST HANF LANDFILL	21490019	HISTORICAL	REFER: RWQCB	834 FRANCISCO BOULEVARD	SAN RAFAEL	94901
[REPORT]		JAKELA INC DBA ASBESTOS CONTROL CENTER	CAL000349704	INSPECTION	NO ACTION	32 HAMILTON DR STE A	NOVATO	94949
[REPORT]		LARKSPUR DISPOSAL SITE	21490020	HISTORICAL	REFER: RWQCB	PIPER PARK ON DOHERTY DRIVE	LARKSPUR	94939
[REPORT]		MARIN DEBRIS DISPOSAL SITE	21490011	HISTORICAL	REFER: RWQCB	SIR FRANCIS DRAKE BLVD, NW OF HIGHWAY 17	SAN RAFAEL	94901
[REPORT]	[MAP]	MARIN RADIATOR & AUTO AIR CONDITIONING	21750004	EVALUATION	INACTIVE - NEEDS EVALUATION	786 ANDERSEN DRIVE	SAN RAFAEL	94901
[REPORT]	[MAP]	MARIN-SONOMA MOSQUITO ABATEMENT DISTRICT	21070001	VOLUNTARY CLEANUP	CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS	201 3RD STREET	SAN RAFAEL	94901

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]		MARINE CORPS RESERVE TRAINING CENTER	21920002	HISTORICAL	REFER: OTHER AGENCY	153 MADISON AVE.	SAN RAFAEL	94903
[REPORT]	[MAP]	MARINSHIP	21370002	EVALUATION	NO FURTHER ACTION	SPRING STREET AND GATE 5 ROAD TO THE BAY	SAUSALITO	94965
[REPORT]		MARSELISBORG INDEPENDENT LIVING EXPANSION	60003510	CALMORTGAGE	ACTIVE	308 & 326 MISSION AVENUE; APN#S 014-054-31 & 014-054-32	SAN RAFAEL	94901
[REPORT]		MCPHAIL'S, INC	21320002	HISTORICAL	REFER: OTHER AGENCY	548 DUBOIS STREET	SAN RAFAEL	94901
[REPORT]	[MAP]	MILL VALLEY AFB	80000719	STATE RESPONSE	REFER: RWQCB		MOUNT TAMALPAIS	
[REPORT]	[MAP]	MILL VALLEY LANDFILL	21490021	EVALUATION	REFER: OTHER AGENCY	CYPRESS AND EDGEWOOD ROAD	MILL VALLEY	94941
[REPORT]	[MAP]	MILL VALLEY MIDDLE SCHOOL	21820002	EVALUATION	REFER: OTHER AGENCY	425 SYCAMORE	MILL VALLEY	94941
[REPORT]	[MAP]	NATIONAL SEASHORE-WLDCAT	80000006	MILITARY EVALUATION	NO FURTHER ACTION		OLEMA	
[REPORT]	[MAP]	NAVAL NET DEPOT	80000711	MILITARY EVALUATION	NO FURTHER ACTION		TIBURON	
[REPORT]	[MAP]	NICASIO SCHOOL ADDITION	21820003	SCHOOL EVALUATION	NO ACTION REQUIRED	5555 NICASIO VALLEY ROAD	NICASIO	94946
[REPORT]	[MAP]	NIVEN NURSERY SITE	21010001	VOLUNTARY CLEANUP	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	2 WARD STREET	LARKSPUR	94939
[REPORT]		NORTHWESTERN PACIFIC RAILROAD	21400001	HISTORICAL	REFER: OTHER AGENCY	EL PORTAL & BRIDGEWAY	SAUSALITO	94965
[REPORT]	[MAP]	NOVATO CHARTER SCHOOL	21890001	SCHOOL EVALUATION	NO ACTION REQUIRED	C STREET/MAIN GATE ROAD	NOVATO	94949
[REPORT]		NOVATO CITY CORPORATION YARD	21160002	HISTORICAL	REFER: OTHER AGENCY	550 DAVIDSON STREET	NOVATO	94947
[REPORT]		NOVATO DISPOSAL SERVICE	21490023	HISTORICAL	REFER: OTHER AGENCY	752 MCCLAY ROAD	NOVATO	94947
[REPORT]	[MAP]	NOVATO DOD HOUSING	21970011	STATE RESPONSE	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	HIGHWAY 101 3 MI N OF LUCAS VALLEY ROAD	NOVATO	94947
[REPORT]	[MAP]	NOVATO STORAGE PARK	21420001	VOLUNTARY CLEANUP	NO FURTHER ACTION	AIRPORT AND BINFORD ROADS	NOVATO	94945

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT]	[MAP]	NW PACIFIC RR PASSENGER & FREIGHT DEPOT, NOVATO	70000099	EVALUATION	INACTIVE - NEEDS EVALUATION	RAILROAD AVENUE AT GRANT STREET	NOVATO	94945
[REPORT]	[MAP]	OAK MANOR CANYON SITE	21490008	EVALUATION	NO FURTHER ACTION	OAK MANOR DRIVE AREA	FAIRFAX	94930
[REPORT]	[MAP]	OMNIGLOW CORPORATION	21280005	VOLUNTARY CLEANUP	NO FURTHER ACTION	20-C PIMENTEL COURT	NOVATO	94949
[REPORT]	[MAP]	PACHECO PLAZA ONE HOUR CLEANERS	60002416	VOLUNTARY CLEANUP	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	446 IGNACIO BLVD.	NOVATO	94949
[REPORT]	[MAP]	PG&E UTILITY CORPORATION YARD	21490016	EVALUATION	INACTIVE - NEEDS EVALUATION	1220 ANDERSEN DRIVE	SAN RAFAEL	94901
[REPORT]	[MAP]	PG&E, SAN RAFAEL MGP	21490015	VOLUNTARY CLEANUP	CERTIFIED / OPERATION & MAINTENANCE - LAND USE RESTRICTIONS	SECOND STREET AND LINDARO STREET	SAN RAFAEL	94901
[REPORT]	[MAP]	PHOTO WASTE RECYCLING	CAD981161367	HAZ WASTE - Standardized	CLOSED	200 GATE 5 ROAD, #115	SAUSALITO	949650000
[REPORT]	[MAP]	PHOTO WASTE RECYCLING CO. INC.	CAL000121946	HAZ WASTE - Standardized	CLOSED	2980 KERNER BLVD	SAN RAFAEL	949010000
[REPORT]	[MAP]	POINT REYES GUNNERY RANGE	80000956	MILITARY EVALUATION	NO FURTHER ACTION		PT REYES	
[REPORT]	[MAP]	PT REYES DAT & ACCESS RD (J09CA0907)	80000695	MILITARY EVALUATION	NO FURTHER ACTION		SAN FRANCISCO	
[REPORT]	[MAP]	PT REYES LIGHTHOUSE	80000599	MILITARY EVALUATION	NO FURTHER ACTION		INVERNESS	
[REPORT]	[MAP]	RAF VILL FAM HOUS ANNEX	80000600	MILITARY EVALUATION	NO FURTHER ACTION		NOVATO	
[REPORT]	[MAP]	RCA ANTENNA FARM	21480001	EVALUATION	REFER: OTHER AGENCY	451 MESA ROAD	BOLINAS	94924
[REPORT]		REDWOOD SANITARY LANDFILL	21490026	HISTORICAL	REFER: RWQCB	1 MI N OF MARIN CO AIRPORT, ADJ TO 101	NOVATO	94947
[REPORT]		RENEW COMPUTERS, INC.	3003878	INSPECTION	NO ACTION	446 DU BOIS ST	SAN RAFAEL	94901
[REPORT]	[MAP]	ROSS VALLEY SANITARY DISTRICT	60000693	EVALUATION	NO FURTHER ACTION	2000 LARKSPUR LANDING CIRCLE	LARKSPUR	94939
[REPORT]	[MAP]	SAN FRANCISCO NIKE BATTERY 91, ANGEL ISLAND	71000052	MILITARY EVALUATION	INACTIVE - ACTION REQUIRED	P.O. BOX 318	TIBURON	94920
[REPORT]	[MAP]	SAN FRANCISCO NIKE BATTERY (J09CA0944)	9380000679	MILITARY EVALUATION	REFER: RWQCB		SAN RAFAEL	
[REPORT]		SAN PEDRO SCHOOL	21820001	HISTORICAL	NO FURTHER ACTION	498 POINT SAN PEDRO	SAN RAFAEL	94901

	SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP
[REPORT] [MAP]	SAN QUENTIN CONDEMNED INMATE COMPLEX	60000293	VOLUNTARY CLEANUP	INACTIVE - ACTION REQUIRED	SAN QUENTIN STATE PRISON ROAD	SAN QUENTIN	94964
[REPORT]	SAN QUENTIN DISPOSAL COMPANY	21490002	HISTORICAL	REFER: RWQCB	1615 FRANCISCO BLVD	SAN RAFAEL	94902

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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PROJECT SEARCH RESULTS

STATUS: All Statuses GO

SEARCH CRITERIA: MARIN

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		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP	CALENV S
[REPORT]		SAN QUENTIN STATE PRISON	21920001	HISTORICAL	REFER: RWQCB	POINT SAN QUENTIN	SAN QUENTIN	94964	1(
[REPORT]	[MAP]	SAN RAFAEL BIV AREA	80000703	MILITARY EVALUATION	NO FURTHER ACTION		SAN RAFAEL		
[REPORT]		SAN RAFAEL PLASTICS COMPANY	21280003	HISTORICAL	REFER: RWQCB	97 JORDAN STREET	SAN RAFAEL	94901	5(
[REPORT]		SAN RAFAEL ROCK QUARRY	21320001	HISTORICAL	REFER: OTHER AGENCY	POINT SAN PEDRO ROAD AT MCNEARS POINT	SAN RAFAEL	94901	
[REPORT]		SHORELINE CENTER	21490031	HISTORICAL	REFER: OTHER AGENCY	111 SHORELINE BLVD.	SAN RAFAEL	94902	7(
[REPORT]	[MAP]	SOUTH PACIFIC DIVISION LABORATORY	80001193	STATE RESPONSE	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY - LAND USE RESTRICTIONS	25 LIBERTY SHIP WAY	SAUSALITO	94965	1!
[REPORT]	[MAP]	SPECIFICATION CHROMIUM CORPORATION	21340002	EVALUATION	INACTIVE - NEEDS EVALUATION	14 BAXTERS COURT	SAN RAFAEL	94901	5(
[REPORT]	[MAP]	SPECIFICATION CHROMIUM CORPORATION	71002990	TIERED PERMIT	NO FURTHER ACTION	712 FRANCISCO BOULEVARD	SAN RAFAEL	94901	5(
[REPORT]	[MAP]	STINSON BEACH FIRE CONTROL STATION (J09CA0959)	80000767	MILITARY EVALUATION	NO FURTHER ACTION		SAN RAFAEL		
[REPORT]	[MAP]	THE CAR SHOP	21750008	EVALUATION	NO FURTHER ACTION	616 LINDARO STREET	SAN RAFAEL	94901	5(
[REPORT]	[MAP]	THINK CLEAN CLEANERS	60002781	VOLUNTARY CLEANUP	ACTIVE	389 MILLER AVENUE	MILL VALLEY	94941	
[REPORT]		THORSSONS AUTO CENTER	21750006	HISTORICAL	REFER: OTHER AGENCY	862 VALLEJO AVENUE	NOVATO	94947	3(
[REPORT]	[MAP]	TOMALES BAY/ABBOTTS LAGOON BOMBING RANGE (J09CA7292)	80000957	MILITARY EVALUATION	NO FURTHER ACTION	(11 MILES W/NW OF)	INVERNESS		
[REPORT]		UNIION OIL CO. OF CALIFORNIA	21290001	HISTORICAL	REFER: RWQCB	620 CANAL STREET	SAN RAFAEL	94901	6(
[REPORT]		UNIVERSAL PROTECTIVE COATINGS	21280004	HISTORICAL	REFER: RWQCB	121-123 JORDAN STREET	SAN RAFAEL	94901	5(

		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP	CALENV $
[REPORT]		US ARMY - FORT BARRY	21970004	HISTORICAL	REFER: RWQCB	GOLDEN GATE NATIONAL RECREATION AREA	SAUSALITO	94965	
[REPORT]		US ARMY - FORT CRONKHITE	21970005	HISTORICAL	REFER: RWQCB	GOLDEN GATE NATIONAL RECREATION AREA	SAUSALITO	94965	1
[REPORT]		US ARMY - FORT MENDENHALL	21970006	HISTORICAL	REFER: RWQCB	GOLDEN GATE NATIONAL RECREATION AREA	SAUSALITO	94965	
[REPORT]		WEST MARIN SANITARY LANDFILL	21490029	HISTORICAL	REFER: RWQCB	HIGHWAY 1 AND TOMASINI CANYON	POINT REYES	94956	1
[REPORT]		WESTERN CHROME PLATING AND POLISHING	21340001	HISTORICAL	REFER: OTHER AGENCY	11 BAXTERS COURT	SAN RAFAEL	94901	5
[REPORT]		WESTERN GEOLOGICAL SERVICES	21870001	HISTORICAL	REFER: OTHER AGENCY	2360-C KERNER BOULEVARD	SAN RAFAEL	94901	7
[REPORT]	[MAP]	WINCUP	60001667	EVALUATION	NO FURTHER ACTION	195 TAMAL VISTA BLVD.	CORTE MADERA	94925	1

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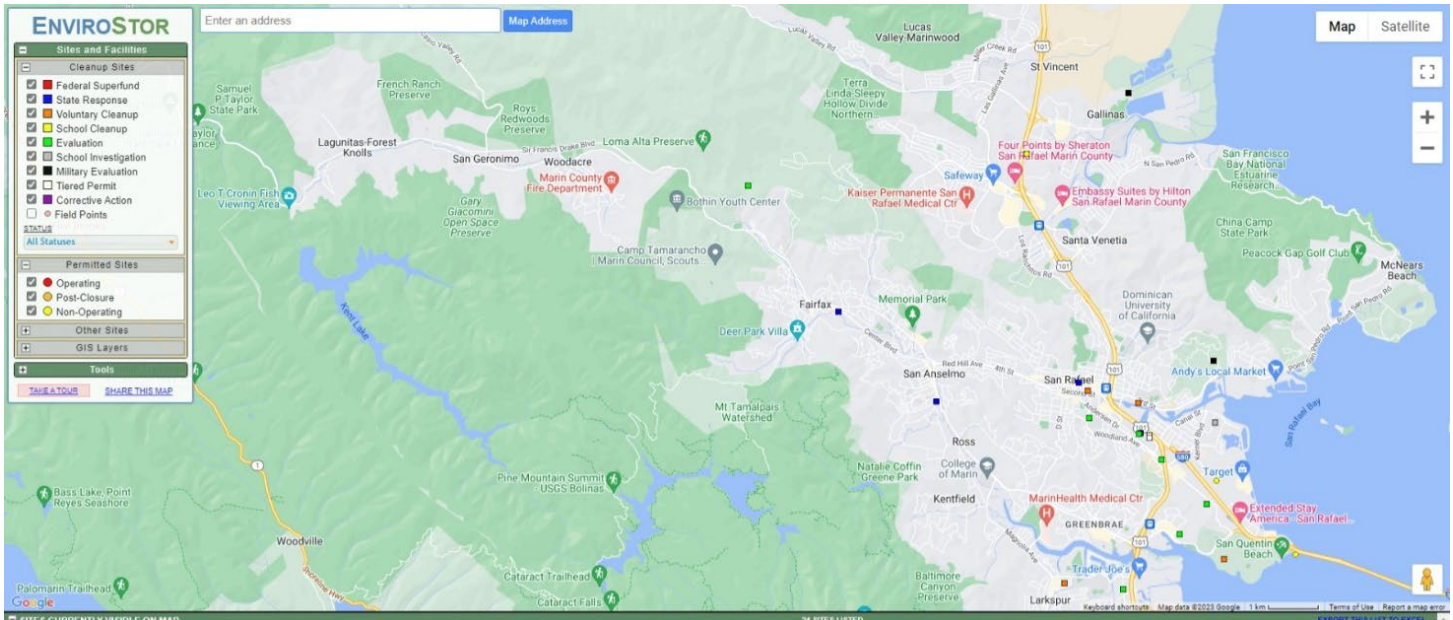
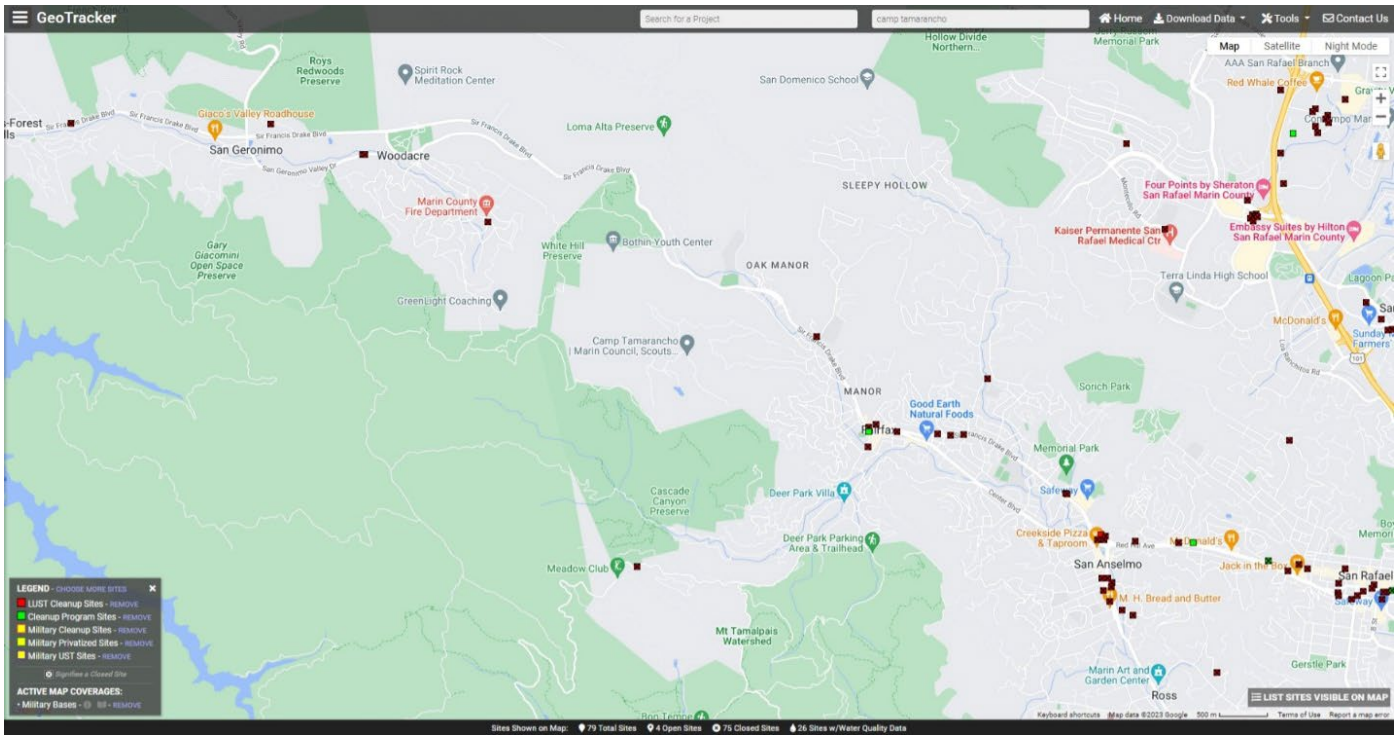


SITES CURRENTLY VISIBLE ON MAP — 24 SITES LISTED — EXPORT THIS LIST TO EXCEL

PROJECT NAME	STATUS	PROJECT TYPE	ADDRESS	CITY
BAHIA VISTA ELEMENTARY SCHOOL	NO ACTION REQUIRED	SCHOOL INVESTIGATION	125 BAHIA WAY	SAN RAFAEL
BAXTER COURT PROPERTY	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY	TIERED PERMIT	714 A FRANCISCO BOULEVARD WEST	SAN RAFAEL
BAXTERS COURT AREA	REFER: RCRA	STATE RESPONSE	BAXTERS COURT	SAN RAFAEL
BOLINAS AVENUE CENTER	ACTIVE	STATE RESPONSE	468 BOLINAS AVENUE & 21 SAN ANSELMO AVENUE	SAN ANSELMO
CDCR - SAN QUENTIN STATE PRISON	CLOSED	NON-OPERATING	1 MAIN ST	SAN QUENTIN
FAIR ANSELM CENTER, INC.	ACTIVE	STATE RESPONSE	709 & 711 CENTER BOULEVARD	FAIRFAX
FAIRCHILD SEMICONDUCTOR CORP	CLOSED	NON-OPERATING	4300 REDWOOD HWY	SAN RAFAEL
FAIRCHILD SEMICONDUCTOR CORP	REFER: RWQCB	CORRECTIVE ACTION	4300 REDWOOD HWY	SAN RAFAEL
FORMER MAXIM GAS PLANT OFFICE	NO FURTHER ACTION	STATE RESPONSE	4TH STREET BETWEEN A & B STREETS	SAN RAFAEL
MARIN RADIATOR & AUTO AIR CONDITIONING	INACTIVE - NEEDS EVALUATION	EVALUATION	799 ANDERSEN DRIVE	SAN RAFAEL
MARIN-SONOMA MOSQUITO ABATEMENT DISTRICT	CERTIFIED / OPERATION & MAINTENANCE	VOLUNTARY CLEANUP	201 3RD STREET	SAN RAFAEL
NIVEN NURSERY SITE	CERTIFIED O&M - LAND USE RESTRICTIONS ONLY	VOLUNTARY CLEANUP	2 WARD STREET	LARKSPUR

SITES IDENTIFIED WITH WASTE CONSTITUENTS ABOVE HAZARDOUS WASTE LEVELS OUTSIDE THE WASTE MANAGEMENT UNIT

COUNTY	CITY	REGION	SWAT #	WASTE DISCHARGER SYSTEM NO.	SOLID WASTE ID NO.	WASTE MANAGEMENT UNIT NAME	FACILITY NAME	AGENCY NAME
DEL NORTE	CRESCENT CITY	1	2	1A880520NSL-01		DEL NORTE COUNTY - PESTICIDE STORAGE	DEL NORTE PESTICIDE STORAGE AR	DEL NORTE, COUNTY OF
CONTRA COSTA	PITTSBURG	2	1	2 071059002-02	07-A1-0001	U.S. STEEL CORP.-PITTSBURG SITE LA	WDR-USS-POSCO	USS-POSCO
SOLANO	VALLEJO	2	1	2 482011003-01	48-AA-0008	US NAVY MARE ISLAND SANITARY LANDFILL	WDR-NAVAL SHIPYARD/CLASS I LAN	MARE ISLAND NAVAL SHIPYARD
CONTRA COSTA	RICHMOND	2	3	2 071007002-01		CHEVRON CHEMICAL COMPANY-OLD SITES	WDR-ORTHO DIV-RICHMOND PLANT	CHEVRON CHEMICAL COMPANY
MONTEREY	FORT ORD (Marina)	3	1	3 270301004-01	27-AA-0015	FORT ORD LANDFILL	SANITARY LANDFILL	U.S. ARMY, FORT ORD
SANTA BARBARA	LOMPOC	3	3	3 420305001-01	42-AA-0017	LOMPOC CITY LANDFILL	SOLID WASTE DISPOSAL SITE	LOMPOC CITY
LOS ANGELES	MONTEREY PARK	4	1	4B190332001-01	19-AM-0001	OPERATING INDUSTRIES LANDFILL	OPERATING INDUSTRIES, INC.	OPERATING INDUSTRIES, INC.
TULARE	WOODLAKE	5F	1	5D540300010-01	54-AA-0007	TULARE COUNTY-WOODLAKE LANDFILL	WOODLAKE SWDS	TULARE, COUNTY OF
FRESNO	FRESNO	5F	2	5D100300001-01		MCKINLEY AVE. YARD	T.H. AGRICULTURE AND NUTRITION	NORTH AMERICAN PHILLIPS
KINGS	CORCORAN	5F	2	5D160302001-01	16-AA-0011	KINGS COUNTY-CORCORAN LANDFILL	CORCORAN SWDS	KINGS COUNTY WASTE MGMT AUTH.
FRESNO	FRESNO	5F	3	5D100319001-01	10-AA-0013	ORANGE AVENUE DISPOSAL COMPANY	ORANGE AVENUE LANDFILL	ORANGE AVENUE DISP CO. INC
TULARE	EXETER	5F	3	5D540300003-01	54-AA-0002	TULARE COUNTY-EXETER DISPOSAL SITE	EXETER SWDS	TULARE, COUNTY OF
MERCED	ATWATER	5F	4	5C240115001-01		ATWATER CITY	BERT CRANE ROAD LANDFILL	ATWATER, CITY OF
FRESNO	FOWLER	5F	5	5D100325N01-01		FOWLER CITY	FOWLER CITY LANDFILL (OLD)	FOWLER, CITY OF
BUTTE	OROVILLE	5R	2	5A042005001-01		KOPPERS COMPANY-OROVILLE SITE	KOPPERS WOOD PRESERVING ISW	KOPPERS INDUSTRIES INC.
BUTTE	CHICO	5R	4	5A040302N01-01		CHICO CITY BURN DUMP	HUMBOLDT ROAD LANDFILL	CHICO, CITY OF
SACRAMENTO	SACRAMENTO	5S	1	5A340700003-01	34-AA-0008	US AIR FORCE-MCCLELLAN AFB LANDFILL	CLASS III SITE 8 (CLOSURE)	US AIR FORCE-MCCLELLAN AFB
SACRAMENTO	MATHER (Rancho Cordova)	5S	2	5A340700001-01		US AIR FORCE-MATHER FIELD LANDFILL	MATHER AFB ENVIRONMENTAL MGMT	US AIR FORCE – MATHER AFB
SACRAMENTO	SACRAMENTO	5S	3	5B342000N01-01		SACRAMENTO ARMY DEPOT	SACRAMENTO ARMY DEPOT	U.S. ARMY
SAN JOAQUIN	STOCKTON	5S	3	5 390002NUR-01	39-AA-0006	US NAVY COMMUNICATIONS LANDFILL	U.S.N. COMMUNICATION STA. LANDF	U.S. NAVY COMMUNICATIONS
SAN JOAQUIN	FRENCH CAMP	5S	3	5 390003NUR-01		US ARMY-SHARPE ARMY DEPOT	US ARMY-SHARPE ARMY DEPOT	US ARMY
SAN JOAQUIN	TRACY	5S	5	5 390006NUR-01		SITE 300 (OTHER 39 WMUS)	LAWRENCE LIVERMORE LAB	LAWRENCE LIVERMORE LABS
INYO	KEELER	6V	1	6B142000041-01	14-AA-0008	US TUNGSTEN OWENS LAKE LANDFILL	OWENS LAKE LANDFILL	UMETCO MINERALS CORPORATION
ORANGE	FULLERTON	8	1	8300002NUR-01		MCCOLL SITE	MCCOLL SLUDGE DISPOSAL SITE	TOXIC SUBSTANCES CONTROL DIVIS
RIVERSIDE	RIVERSIDE	8	1	8 330325001-01		STRINGFELLOW QUARRY ACID PITS	STATE OF CALIFORNIA-STRINGFELLOW	TOXIC PROGRAM MANAGEMENT SECT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SLEEPY HOLLOW
Four Points by Sheraton San Rafael Marin County
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Bothin Youth Center
OAK MANOR
Kaiser Permanente San Rafael Medical Ctr
Embassy Suites by Hilton San Rafael Marin County
Terra Linda High School
GreenLight Coaching
Camp Tamarancho | Marin Council, Scouts...
MANOR
McDonald's
Sunday Farmers
Sonich Park
Good Earth Natural Foods
Memorial Park
Safeway
Cascade Canyon Preserve
Deer Park Villa
Deer Park Parking Area & Trailhead
Creekside Pizza & Taproom
San Anselmo
Jack in the Box
San Rafael
M. H. Bread and Butter
Meadow Club
Mt Tamalpais Watershed
Marin Art and Garden Center
Gerstle Park
Ross
LEGEND - CHOOSE MORE SITES
LUST Cleanup Sites - REMOVE
Cleanup Program Sites - REMOVE
Military Cleanup Sites - REMOVE
Military Privatized Sites - REMOVE
Military UST Sites - REMOVE
Signifies a Closed Site
ACTIVE MAP COVERAGES:
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4 Open Sites
75 Closed Sites
26 Sites w/Water Quality Data