HEARST RANCH FOREST HEALTH FUELS REDUCTION PROJECT

Project Specific Analysis

An Addendum to the California Vegetation Treatment Program
Programmatic Environmental Impact Report

CAL FIRE San Luis Obispo Unit

In collaboration with:

The San Luis Obispo County Community Fire Safe Council &
Upper Salinas-Las Tablas Resource Conservation District

September 2023
CALVTP ID: 2023-16

Prepared by:

Auten Resource Consulting

116 Martinelli St., Suite 8
Watsonville, CA 95076

Contact:
Steve R. Auten | Registered Professional Forester #2734 · steve.auten.arc@gmail.com
Riley McFarland | Assistant Forester III · riley.mcfarland.arc@gmail.com

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LIST OF FIGURES

LIST OF TABLES

THE CALIFORNIA VEGETATION TREATMENT PROGRAM ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1.	**Project Title:**	*Hearst Ranch Forest Health Fuels Reduction Project*
2.	**CAL FIRE Project Number**	*Rx-South-066-SLU*
3.	**CalVTP I.D. Number**	*2023-16*
4.	**Project Proponent Name and Address:**	*CAL FIRE San Luis Obispo Unit* *1150 Laurel Lane, Ste 175* *San Luis Obispo, CA 93401*
5.	**Contact Person Information and Phone Number:**	*Dave Erickson* *Forester I, CAL FIRE* *David.Erickson@fire.ca.gov* *(805) 903-3406* *Jonathan Gee* *Forestry Assistant II, CAL FIRE* *Jonathan.Gee@fire.ca.gov* *(805) 528-2160*
6.	**Project Location:**	o *San Luis Obispo County* o *Portions of Sections 26, 27, 34, & 35, T26S, R07E, and Portions of Sections 31 & 32, T26S, R08E, MDBM, USGS San Simeon Quadrangle -AND- Portions of Sections 5 & 6, T27S, R08E, MDBM, USGS Pico Creek Quadrangle* o *The project boundary encompasses two separate zones within San Simeon. Zone 1 pertains to the project area on San Simeon Point, a natural coastal peninsula that extends into San Simeon Bay approximately 0.25-0.5 miles north of San Simeon Pier. Zone 2 pertains to the Pico Creek Monterey pine stand, a native pine forest located along the lower reaches and north of Pico Creek in San Simeon.* o *Approximate center of project areas:* *Zone 1 (San Simeon Point) [35.64054, -121.19627]* *Zone 2 (Pico Creek Stand) [35.62893, -121.14536]* o *APNs 011-242-019, 011-242-018, 011-251-014, & 011-251-016*

	o *See project maps*
	[include county and coordinates; also include cross street, other major landmarks or legal description useful to identify treatment location]
7. **Total Area to be Treated (acres)**	*Up to 762*

Executive Summary

Setting

The purpose of this project is to:

1. Protect irreplaceable historical facilities at Old San Simeon Village by reducing wildfire hazard from ignition sources on San Simeon Point.
2. Restore the health of planted Monterey pine, Monterey cypress, and blue gum eucalyptus habitat at San Simeon Point near Old San Simeon Village.
3. Protect New San Simeon community from wildfire by reducing the hazard and risk from wildfire in the Pico Creek Monterey pine stand.
4. Restore the health and vigor of the rare Monterey pine community at Pico Creek near New San Simeon.

Wildfires have taken a significant toll on many communities across California. A majority of land managers, researchers, and foresters predominantly agree on the factors that led to many recent large-scale fires: The outlawing of cultural burning, restricting fire over the last 100 years, a lack of vegetation management, climate change, periods of successive drought, and significant development into the Wildland-Urban Interface (WUI). The product of these factors are very dense and senescent forests and surrounding vegetation types ripe for wildfire ignition that are need of treatment.

This project will occur on private property within the boundaries of land owned and managed by Hearst Holdings, Inc., hereinafter referred to as the Landowner, in the region of San Simeon, California. This property is permanently protected from nearly all forms of commercial development by conservation easements recorded in 2005 and held by the California Rangeland Trust.

CEQA and Coastal Act Compliance

The California Vegetation Treatment Program (CalVTP) is a Programmatic Environmental Impact Report (PEIR)[1] that was certified in 2019 as a document in compliance with the California Environmental Quality Act (CEQA). The PEIR offers an array of permittable vegetation treatment actions that promote ecological restoration, landscape-level forest health, and reducing the risk of wildfire pending the submittal of a Project Specific Analysis (PSA), an addendum to the PEIR. The PSA must provide comprehensive project and treatment information; including details on operations and how the proposed activities comply with Standard Project Requirements (SPRs) and Mitigation Measures (MMs) approved under the CalVTP PEIR.

While the CalVTP provides CEQA compliance for an array of forest health and wildfire prevention projects, the Upper Salinas-Las Tablas Resource Conservation District (US-LT RCD) Public Works Plan (PWP) serves as a companion to the CalVTP to provide a streamlined mechanism for Coastal

[1] https://bof.fire.ca.gov/projects-and-programs/calvtp/calvtp-programmatic-eir/

Act compliance within the California Coastal Zone. The *Upper Salinas-Las Tablas Resource Conservation District Forest Health and Fire Resilience Public Works Plan*[2] was approved by California Coastal Commission Board members on October 15, 2021.

To supplement the PSA, the PWP requires vegetation management information by way of a set of Coastal Vegetation Treatment Standards (Coastal VTS) that outlines specifics related to project justification, project design, protection of sensitive ecosystems, and standardized treatment guidelines. This PSA not only addresses all of the critical components of the CalVTP, but also includes information specific to Coastal VTS and Coastal Act compliance. The Coastal VTS for the Hearst Ranch Forest Health Fuels Reduction Project can be found in *Attachment D*.

[2] https://www.us-ltrcd.org/forest-health-and-fire-resilience-public-works-plan

8. **Description of Project:** (Describe the whole action involved, including any phasing of initial treatments as well as planned treatments, including equipment to be used and planned duration of treatments, but not limited to later phases (e.g., maintenance) of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

Project Goals

This project proposes to improve the health and vigor of the Monterey pine forest by conducting ecologically restorative forest health treatments that reduce competition, encourage natural pine regeneration, and increase climate resiliency and biological diversity while reducing the severity of wildfire near the historic community of Old San Simeon Village and San Simeon Acres (aka “New San Simeon”).

The objective of this restorative work is to selectively thin dense tree cover, dense tree stands, diseased tree populations, and underlying brush to improve forest health, increase climate resiliency, and lessen the risk of wildfire. Work will be done using a prudent, science-based, and environmentally sensitive approach designed to ensure protection of the natural environment.

The purpose of this project is to:

1. Protect irreplaceable historical facilities at Old San Simeon Village by reducing wildfire hazard from ignition sources on San Simeon Point.
2. Restore the health of planted Monterey pine, Monterey cypress, and blue gum eucalyptus habitat at San Simeon Point near Old San Simeon Village.
3. Protect New San Simeon community from wildfire by reducing the hazard and risk from wildfire in the Pico Creek Monterey pine stand.
4. Restore the health and vigor of the rare Monterey pine community at Pico Creek near New San Simeon.

Project Location

The entire surveyed, proposed project area in San Luis Obispo County encompasses approximately 762 acres across two locations in the unincorporated region of San Simeon, California. The census-designated place along coastal CA State Route 1 (Highway 1), approximately 42 miles north of San Luis Obispo, can be divided into two locales – Old San Simeon Village and San Simeon Acres.

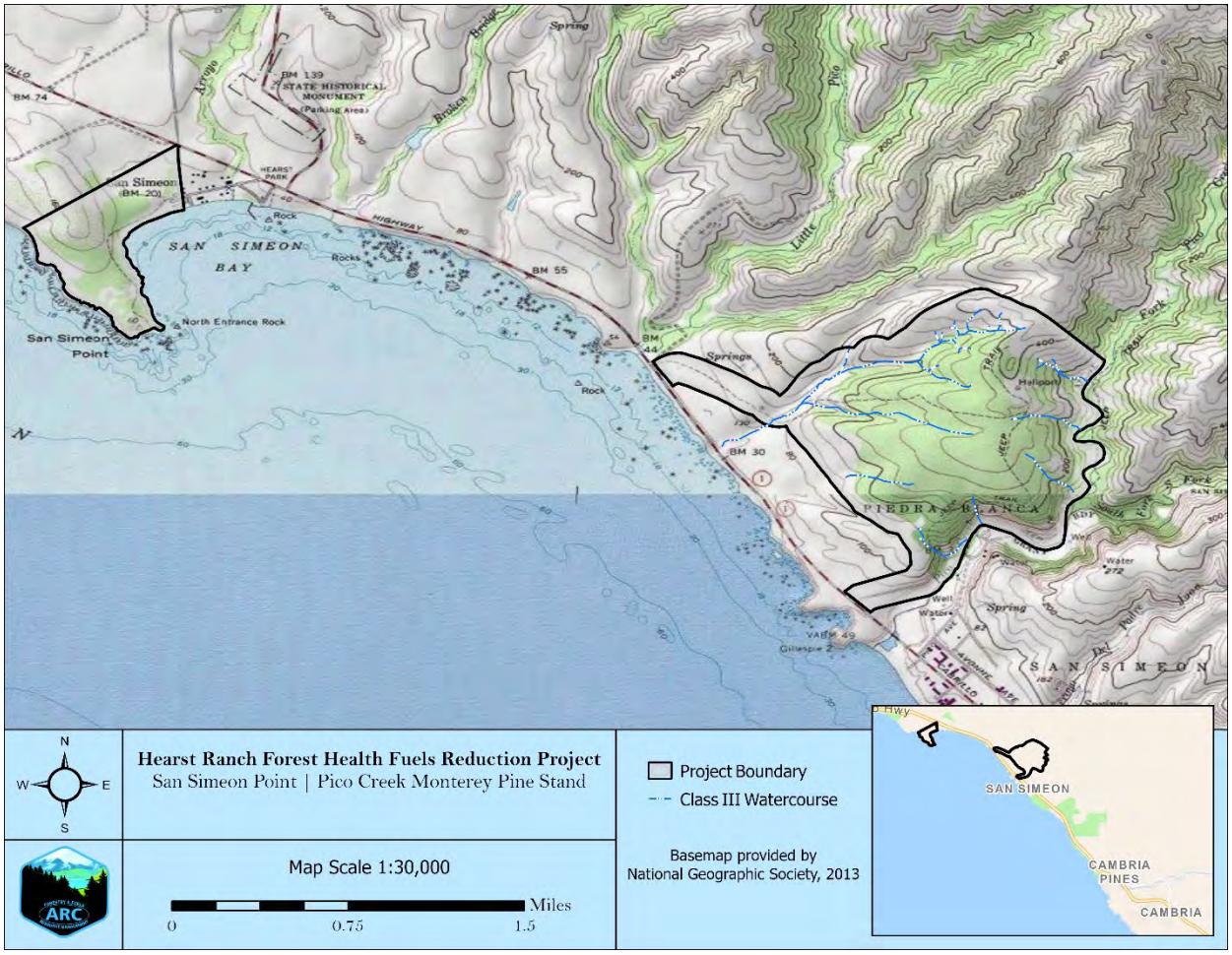


Figure 1 Location of proposed project; Map not to Scale

Old San Simeon Village (OSSV) refers to the historic coastal development west of Highway 1 and across from the entrance to the Hearst Castle Visitor Center at Hearst San Simeon State Historical Monument. Established as a mercantile, harbor, and whaling point during the whaling era of the mid- to late-1800s, OSSV was developed on Rancho Piedras Blancas land acquired by George Hearst. OSSV is mostly rural and consists of historic buildings, warehouses, homes, ranch infrastructure, and rangeland that surrounds this irreplaceable

coastal community. General and public access to San Simeon Point from OSSV requires entry into William Randolph Hearst Memorial Beach; from which, visitors are able to hike north along the coast and up and onto the peninsula. Public access is provided voluntarily by Hearst, per California Civil Code § 813.

Figure 2 Old San Simeon Village as seen from San Simeon Point

The Sebastian Store building, a central feature of OSSV built in 1852 and originally located on San Simeon Point, was moved to its present location in 1878 and is undergoing extensive restoration in 2022 to maintain the important infrastructure and history of this area. The Sebastian Store building is California registered historical landmark No. 726.

Figure 3 Pete Sebastian circa 1985; Sebastian's Store in background

San Simeon Acres, or "New San Simeon", by contrast, pertains to the more recently developed community located along Highway 1 south of Pico Creek. Up until the late 1950s and early 1960s, the area that would become "New San Simeon" was widely undeveloped prior to Hearst Castle becoming a popular tourist attraction in 1958. By 1975, San Simeon Acres was well-established and consisted of beachfront resorts, restaurants, retail centers, and a small community of homes. The Pico Creek Monterey pine stand is situated between Pico Creek and Little Pico Creek, immediately north of and adjacent to San Simeon Acres.

Figure 4 Aerial view of San Simeon region; 1937 vs 2022

San Simeon Point

San Simeon Point is a high-use visitor area that provides public access to scenic vistas from coastal bluffs and a network of short, wooded walking trails. Predominantly bounded by coastline, majority of San Simeon Point hosts a dense, non-native stand of Monterey cypress (*Hesperocyparis macrocarpa*), Monterey pine (*Pinus radiata*) and blue gum eucalyptus (*Eucalyptus globulus*). San Simeon Point is exposed to strong coastal winds.

The project area is on private land adjacent to, and accessible from Hearst San Simeon State Park. Day-use public access to San Simeon Point is maintained under the sole discretion of Hearst Holdings, Inc. Trespassing per California Civil Code § 813 recorded with San Luis Obispo County outside of public access hours and unauthorized camping are primary concerns of Hearst Ranch staff as these activities have the potential to cause and have at times produced wildfires, vandalism, and environmental damage.

Limited public access to San Simeon Point is permitted but revocable under the discretion of the Landowner and within the terms of a conservation easement enacted on the property in 2005. Permissive public access on San Simeon Point will be suspended during treatment operations and restored at the discretion of the Landowner. Public access to Pico Creek is prohibited without prior consent from the Landowner.

The adjacent building complex, Old San Simeon Village, is wholly owned by Hearst Holdings, Inc. and comprises four historic warehouses (including Julia Morgan's stucco warehouse), and four historic Mission Revival style residences, still occupied by Hearst employees, Sebastian's store, and the Pacific School building (opened in 1882 but closed in the 1940s).

The vast majority of forested stands at San Simeon Point were planted approximately 75-90 years ago; the age that represents the general maximum life span of the pine and cypress species that occupy this area. Senescent cypress and pine stands are readily observable across San Simeon Point and are actively adding excessive downed, wildfire-prone fuel loads to the forest system as a whole. In addition, wind throw and the falling dead branches of aging trees presents a potential threat to public safety while adding to hazardous wildfire fuel conditions. Primary goals of this project are to improve forest health, maintain visitor access, reduce fire hazard to protect irreplaceable historic buildings, and provide entry points to emergency resources and fire personnel.

San Simeon Point also hosts two distinct groves of planted eucalyptus, primarily blue gum (*Eucalyptus globulus*), that were established historically to serve as wind breaks for OSSV and infrastructure formerly located on San Simeon Point. In present condition, the eucalyptus stands on San Simeon Point are mature, frequently shedding large limbs and debris, displaying signs of insect damage, falling or breaking in high winds, and accumulating excessive levels of downed woody material in the understory. Contiguous horizontal and vertical fuel loading in these groves presents a significant wildfire risk and public safety hazard as visitors to San Simeon Point travel by foot along the margins of the larger grove where wind throw is greatest in order to access the peninsula. Additionally, eucalyptus groves existing within the project area are of special habitat value as they host seasonal populations of monarch butterflies (*Danaus plexippus*). The Xerces Society for Invertebrate

Conservation was consulted as part of this plan development process to assess and monitor existing monarch populations on San Simeon Point and ensure proposed treatments are in alignment with monarch conservation dynamics and potential habitat enhancement strategies. A treatment guidance report from Xerces Society can be found in *Attachment F* and its proposed measures will be incorporated into the overall treatment approach for this project where monarch populations and potential habitat have been identified.

Figure 4 provides aerial imagery that shows the ecological progression of San Simeon point from 1937, prior or around the time of planting, to 2021. Rapid growth and subsequent die-off have led to the existing overstocked, hazardous fuel conditions on San Simeon Point.

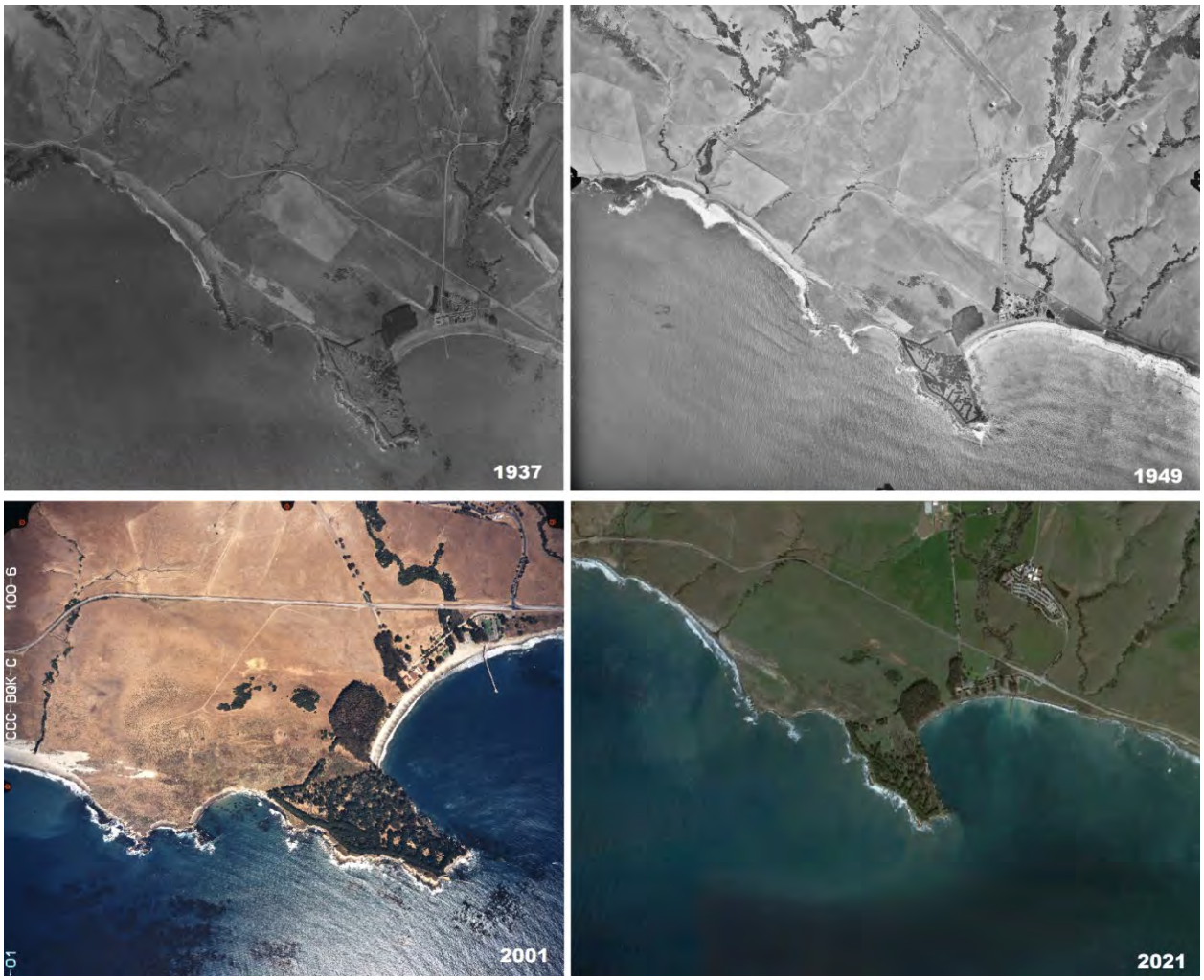


Figure 5 Ecological progression of San Simeon point from 1937, around the time of planting, to 2021

Pico Creek Monterey Pine Stand

Hearst Holdings, Inc., San Luis Obispo County Community Fire Safe Council, CAL FIRE, and the Upper Salinas-Las Tablas Resource Conservation District have identified the Pico Creek Monterey pine (*Pinus* radiata) stand as a rare, important forestland in need of restorative management focused on habitat resilience, forest health, native species diversity, carbon

storage, and reducing the risk of catastrophic wildfire that could impact the San Simeon Acres community.

The Monterey pine stand at Pico Creek exists just north of San Simeon Acres adjacent to Highway 1 on a foothill coastal terrace situated between the Little Pico Creek and Pico Creek Watersheds (HUC12). The density and mortality present within this stand generally corresponds to what is observable in similar regional environments. Overstocked stands of Monterey pine and dense understory conditions present and existing wildfire hazard in an extremely rare forest type. CAL FIRE has designated the area in which the stand exists as a Very High Fire Hazard Severity Zone[3].

Per the Manual of California Vegetation, Second Edition (Sawyer et al., 2009), the project area at Pico Creek consists primarily of the *Pinus radiata* Forest Alliance, which possesses a rarity rank of S1.2. This alliance's membership rules necessitate Monterey pine to encompass greater than 25% cover in the tree layer while maintaining a composition of associated native species such as coast live oak, manzanita, huckleberry, and poison oak. A California Natural Diversity Database (CNDDB) analysis of the project area also produced rarity rank of S1.1 (critically impaired) exclusively for this Monterey pine forest, designated as special-status forest habitat by the database. Monterey pine trees within the stand at Pico Creek well exceeds 25% in the project area. No significant reduction of the overall tree cover is expected since work is predominantly focused on smaller trees and shrubs in the understory, which will maintain and promote the *Pinus radiata* Forest Alliance.

[3] CAL FIRE: Fire and Resource Assessment Program (FRAP) Fire Hazard Severity Zones

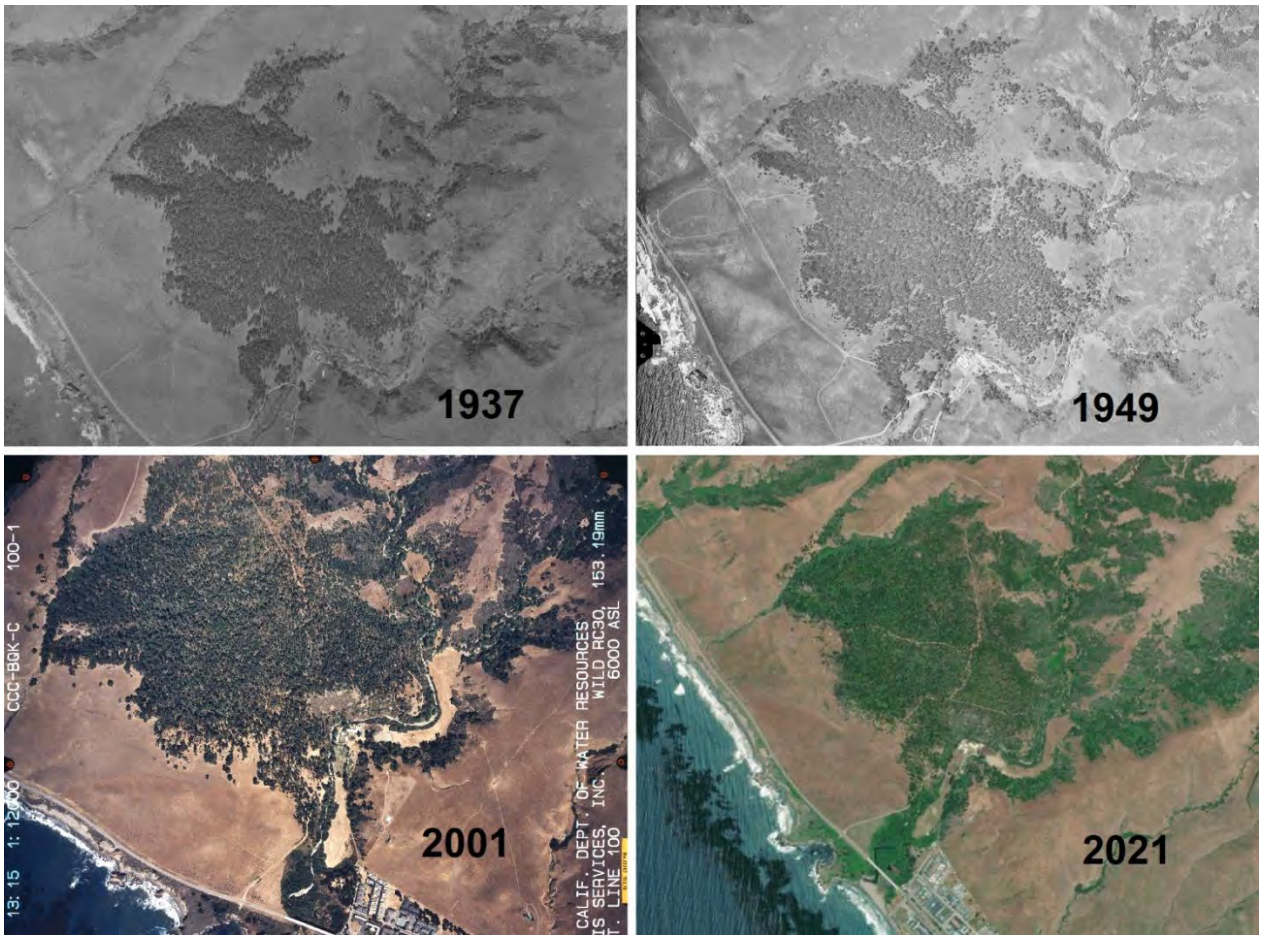


Figure 6 Ecological progression and increased expanse of the Monterey pine stand at Pico Creek between 1937 and 2021

Figure 5 shows the progression and increased expanse of the Monterey pine stand at Pico Creek between 1937 and 2021. Overstocking due to lack of frequent disturbance by low intensity wildfire in this forest has led to notable die-off of dominant and codominant pine trees, likely as a result of excessive competition for limited resources.

Treatment Description

This project aims at reducing wildfire hazard and restoring one of five naturally occurring Monterey pine stands in the world to native ecological conditions for long-term forest health, reduced wildfire hazard, wildlife abundance, carbon sequestration, and resilience of rare botanical alliances including retaining some groundcover vegetation in tree and shrub communities.

Treatments will largely be conducted by implementing a combination of manual hand work, mechanical equipment [tracked mulcher to cut and chip understory ladder fuels, leaving root systems intact for resprouting, including live trees up to 8 inches diameter at breast height (DBH) and other vegetation], and prescribed fire. Trees greater than 8 inches in diameter may be removed if they are a public safety hazard, dead or dying, irreversibly diseased, substantially damaged, or an invasive exotic. Understory vegetation, brush, and shrubs under the drip lines of trees shall be cut and/or masticated, leaving root systems intact for resprouting. Material left over from initial treatment may be processed on site by way of

chipping, lop and scatter, or mulched and utilized by the landowner. Prescribed broadcast or pile burn treatments will be utilized as needed to dispose of excess residual vegetative material. Selective retention of shrubs in the understory and trees <8" DBH will be implemented to maintain ecological complexity and promote a mosaic of vegetation across the project area per standards described in the Coastal VTS (Attachment D) and presented as an example in the publication Wildlife-Friendly Fuels Reduction in Dry Forests of the Pacific Northwest (Attachment G).

Within the Pico Creek Monterey Pine Stand, several ephemeral Class III watercourses exist within the project area. These watercourses are protected by implementing a 25–30-foot Equipment Limitation Zone (ELZ) from the watercourse centerline which prohibits the use and maintenance of mechanized equipment within proximity to the watercourse channel. In places where equipment must cross a Class III watercourse to access other areas of the treatment unit, designated equipment crossing zones will be established in key locations to minimize equipment use in close proximity to existing Class IIIs. No Class I or Class II streams exist within the project areas. Mapped Class III watercourses present at Pico Creek Monterey Pine Stand and associated ELZs can be found in Figure 7. San Simeon Point does not contain any watercourses.

Treatment Type

This project proposes an Ecological Restoration Treatment Type to restore ecosystem processes, native stand conditions, and forestland resiliency through the removal of dead, dying, or diseased trees, dense understory fuels, and invasive species in areas predominantly outside of the Wildland-Urban Interface (WUI), or areas integrated into WUI fuel reductions, as defined by the California Vegetation Treatment Program PEIR (CalVTP Final PEIR Volume II Section 2.5.1, pages 7 & 15-17). Implementing prescribed burning, herbicide application, and mechanical and manual treatment activities will result in a modification of the existing fuels that will reduce the risk of stand-replacing fire events and ultimately support the restoration of native vegetative species and habitat conditions including, but not limited to, habitat quality and natural, low-intensity fire regimes.

An overaccumulation of fuels and vegetation creates competition for the available water, nutrients, and sunlight plants need to grow; therefore, the reduction of vegetative competition in the understory will facilitate a natural disturbance that encourages forest succession and regeneration to occur, influencing the amount of carbon stored in the residual forest (Dale et al. 2000).

Thinning of the stand from below through the removal of small diameter live trees and understory vegetation will result in an increased carrying capacity of the site, which would stimulate the growth of the residual dominant and co-dominant trees (Skovsgaard, 2008). The accumulation of fuels and vegetation creates competition for the available water, nutrients, and sunlight plants need to grow; therefore, the reduction of vegetative competition in the understory would increase the growth and carbon storage capacity in the residual stand. This project aims at restoring one of five naturally occurring Monterey

pine stands in the world to native ecological conditions for long-term forest health, wildlife abundance, carbon sequestration, and resilience of rare botanical alliances.

Treatment Activities

The sequence and extent to which each of the following Treatment Activities will be implemented within the project area may vary based on site-specific conditions, feasibility, access, cost, and operational timeframes. Generally, project sites will undergo initial treatment by way of manual or mechanical means in areas conducive to those treatment methods to prepare the site for follow-up treatments such as prescribed burning and selective herbicide application. Material processed by handwork would likely be chipped, lopped and scattered, or piled and burned onsite. Masticated material is predominantly left on site and may be processed further through means of controlled broadcast burns. Broadcast burn units and the level of preparatory treatments necessary within those areas will be determined by CAL FIRE, the project proponent.

Figures 7 and 8 below present treatment unit maps within the project area and associated treatment activities as proposed. Included in the map for Pico Creek (Figure 8) are Class III watercourse locations within the project area and their associated Class III Equipment Limitation Zones (ELZs) which span 25-50 feet from the edge of the streambank on each side of the channel based on slope. These ELZs prevent equipment travel and use in proximity to the stream channel except in areas specifically designated as equipment crossing zones or prescribed burning control line locations. The project area at Pico Creek does not contain any Class I or Class II streams and no watercourses are present within the project area at San Simeon Point (Figure 7).

Mechanical treatment activities may be implemented within the 762-acre project area. Mechanized mulching and mastication equipment will be used to thin dense stands of understory vegetation and ladder fuels and maintain a healthy overstory, which is within the scope of the PEIR. As stated in the CalVTP PEIR Section 2.5.2, “mechanical treatments may cut, uproot, crush/compact, or chop existing vegetation through the use of masticators and other methods of application”. This project is designed to retain subsurface root burls of select species to promote natural regeneration. Understory debris may be chipped or lopped and scattered on-site within the treated areas. The mechanical treatment crew may utilize a chainsaw and/or various other mechanized tools or hand tools to buck downed debris and prune ladder fuels and vegetation. Treatment activities will allow for appropriate retention of understory and other vegetation for wildlife habitat and ecological heterogeneity.

Low-pressure, smaller (<20,000 lb.), tracked excavators and other tracked equipment with mowing heads that can grind smaller trees and understory vegetation into 1-3” large chips on slopes ≤40% and spread chips throughout the forest are preferred. The masticator will

access treatment areas from existing roads and in a few cases, when moving from one treatment polygon to another, operate on slopes up to 50% for short distances approximately 100-200 feet. Resulting mastication will leave a layer of mulch behind to minimize any erosion and suppress weed invasion, while allowing the existing seedbank to germinate beneath, and give cut root systems the opportunity to resprout. Operators working in smaller, more compact machines maintain greater mobility in the forest, resulting in lower damage to the residual forest stand and increasing worker safety. General production rates average approximately one acre per day, per piece of tracked equipment.

Manual treatment activities, or handwork, will occur in special treatment areas within or adjacent to cultural and historic sites, key aesthetic areas, within or in proximity to watercourse protection zones or environmentally sensitive areas, and/or where the use of mechanized equipment is not feasible or advised such as slopes exceeding ~40%. Handwork may be utilized to lessen treatment impacts in sites where special consideration should be taken. These may include but are not limited to areas around known or observed habitat sites, rookeries, sites involving rare or endangered plant species, cultural or historic resource areas, locations near buildings, infrastructure or public utilities, or areas hazardous to equipment operators.

Handwork generally consists of conducting physical labor to remove smaller trees (≤8" in diameter) and understory vegetation with various hand operated equipment including chainsaws and chippers. Handwork is physically demanding and inherently exposes workers to increased safety risks. General production rates average approximately one half-acre per day for a crew of approximately 10 people.

Prescribed burning treatment activities may occur in the project areas in the form of pile burning and/or controlled broadcast burning within the proposed treatment units. As the project proponent, CAL FIRE crews will conduct the implementation of pile burning and broadcast burning throughout initial and maintenance treatments. As described in the CalVTP PEIR Section 2.52, prescribed burning is used as a tool to restore and maintain appropriate fire regimes in areas departed from native ecological processes as a result of prolonged fire suppression.

Vegetative outcomes of prescribed broadcast burning are variable depending upon the pre-existing conditions and timing of application. Typically, understory broadcast burn operations occur in the late Fall or early Winter, with the goal of reducing understory vegetation and duff and litter depths. Grassland burns typically occur in Fall, following slight precipitation, with the goal of burning the thatch layer of annual grasses and promoting native perennial grass and forb growth. Finally, chaparral burns typically occur in the late Spring, when live fuel moisture is high, but dead fuels are dry enough to facilitate consumption. However, burns will occur opportunistically when conditions allow. Furthermore, as referenced in the PEIR (CalVTP Final PEIR Volume II Section 3.17, p. 3) prescribed fire has shown to be effective in reducing fire frequency and severity when applied at the landscape scale over extended periods of time (Kim et al. 2013, Prichard and

Kennedy, 2014). Prescribed fire operations may utilize drip torches, fuzees, heli-torches and other commonly used forms of ignition starts for prescribed fire. Additionally various sizes of fire engines may be utilized as control measures, as well as heavy equipment staged along control line roads in the event emergency measures are required.

This project proposes to implement understory burn prescriptions within the treatment sites using patterned lighting techniques to create a mosaic of burn treatments while typically retaining some groundcover vegetation in tree and shrub communities. Following a low-intensity surface fire in areas of exposed soil, favorable seedbed conditions exist for Monterey pine regeneration (USFS).

Herbicide application may be implemented where invasive species are present within the treatment areas to promote regeneration of native species and reduce the spread of invasive vegetation. The CalVTP PEIR Section 2.5.2 indicates that herbicide application may only be implemented at ground-level from equipment on vehicles or by manual application devices and must comply with the U.S. Environmental Protection Agency directions, as well as California Environmental Protection Agency and Department of Pesticide Regulation label standards.

While herbicide application is not anticipated to be a primary treatment activity for this ecological restoration project, it may be used in conjunction with other treatment activities to control the colonization and spread of invasive plants following initial treatments. Herbicide treatments may occur within the bounds of treatment areas but will predominately occur near roads and where pockets of invasive species are concentrated.

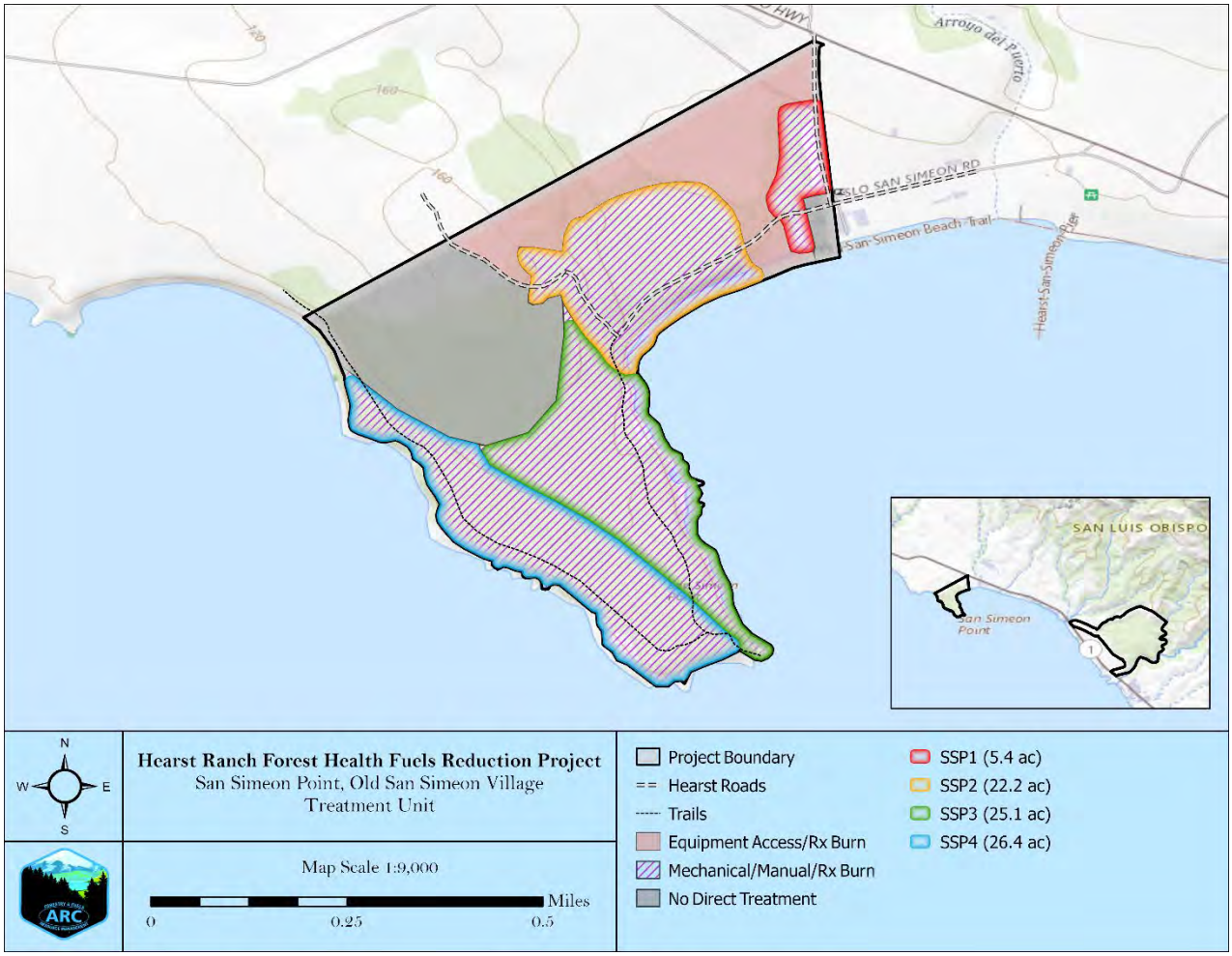


Figure 7 San Simeon Point treatment units and treatment activity overlay; map not to scale. "SSP" refers to numbered treatment units specific to San Simeon Point. Purple hashing corresponds with treatment areas where mechanical, manual, and/or prescribed burn activities are proposed to occur. Areas in pink are designated for equipment access and prescribed burning. Grayed out polygons correspond to areas where no initial treatments are currently proposed, but treatment activities may occur over the duration of the project.

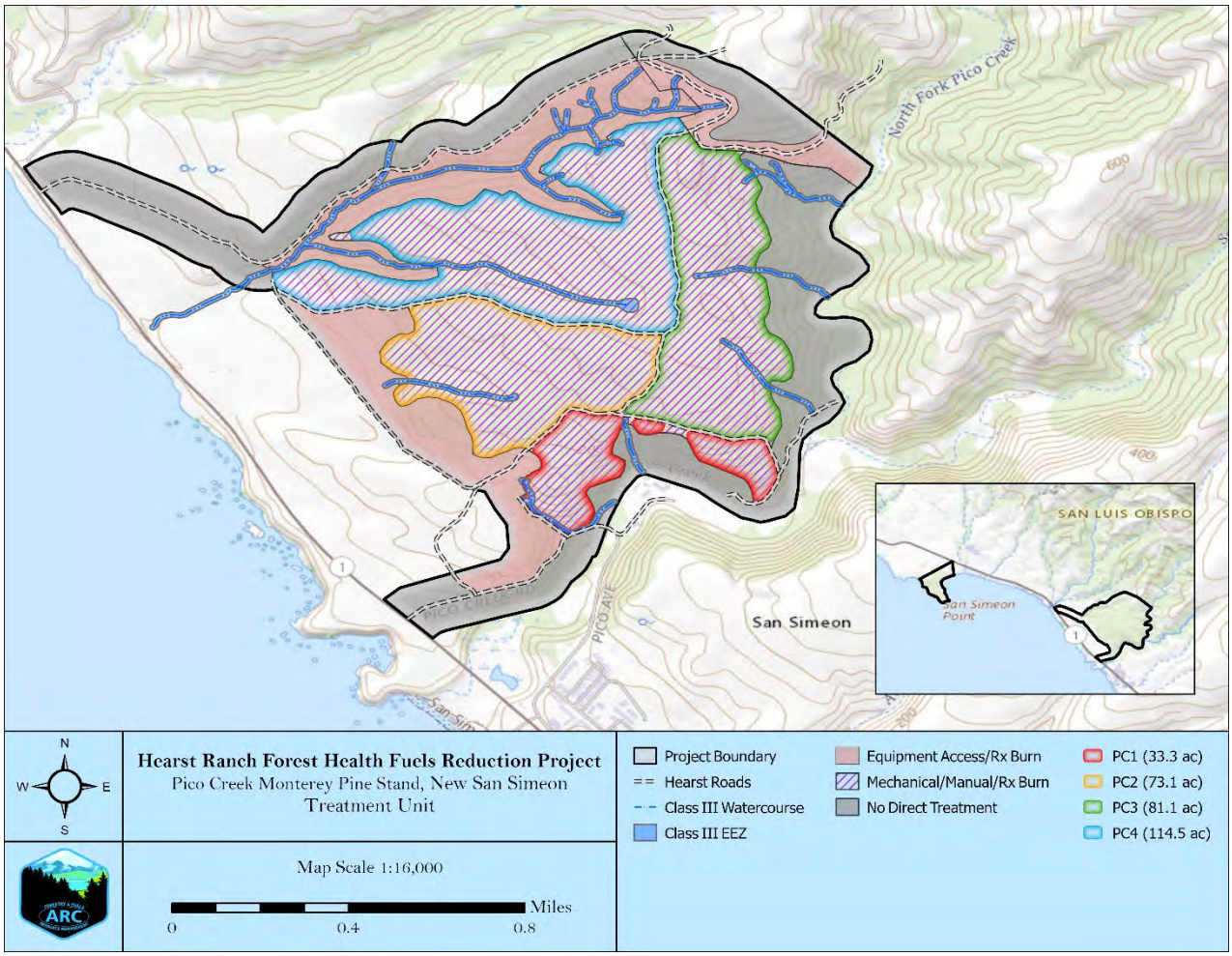


Figure 8 Pico Creek Monterey Pine Stand treatment units and treatment activity overlay; map not to scale. "PC" refers to numbered treatment units specific to Pico Creek. Purple hashing corresponds with treatment areas where mechanical, manual, and/or prescribed burn activities are proposed to occur. Areas in pink are designated for equipment access and prescribed burning. Grayed out polygons correspond to areas where no initial treatments are currently proposed, but treatment activities may occur over the duration of the project.

Fuel Types

Treatments will occur predominantly in the tree fuel type as described in the Cal VTP PEIR Section 2.4.1. The dominant vegetation class within the tree fuel type is widely Closed-cone Pine-Cypress as classified by California Department of Fish and Wildlife CWHR-13 data both on San Simeon Point and at Pico Creek, with exceptions.

The forest at Pico Creek is dominated by Monterey pine and is intermixed with hardwoods and a dense understory of shrub species. Cypress is not a dominant tree species in the Pico Creek pine stand. This project will reduce fuel loading in the tree fuel type to decrease the risk of a stand-replacing fire event.

Forested stands at San Simeon Point are collectively a plantation of native (cypress and pine) and non-native (eucalyptus) trees intermixed with a variety of understory flora and shrub species.

Both project sites contain small proportions of coastal sage scrub, as mapped in Figures 10 and 11 below. Treatment of coastal sage scrub is not a priority of this project, but treatment activities may take place in proximity to or within mapped coastal scrub habitat. All applicable SPRs and MMs listed in the project checklist and described in *Attachment A* of this PSA will be implemented to protect the integrity coastal scrub habitat within the project area. Coastal scrub habitat may be included in prescribed burning activities. *Attachment C* contains more information regarding coastal scrub and other sensitive natural communities.

Equipment

This project proposes the use of the following equipment:

Excavator/Mulcher or similar fixed with masticating head
Chipping machines (tracked or non-tracked)
Chainsaws and/or other mechanized tools or hand tools
Haul vehicles for equipment transport
Vehicles for contractor transport
Fire suppression vehicles and equipment

Duration of Treatments

A proposed treatment project under the CalVTP would identify the time frame to complete the initial treatment and any anticipated maintenance. The treatment may be considered complete once either the time frame for accomplishing the treatment has concluded, the treatment objectives have been met, or the contractual agreements in place between the project proponent and landowner/land manager expire. The project proponent will consider whether additional treatment is warranted.

It is anticipated that initial treatments for this project may occur over a span of 1-3 years; however, initial treatment time frames are dependent on a number of potential unforeseen factors including, but not limited to, operation delays, production rates, funding availability, weather, natural disaster or wildfire events, contractor availability, or changes in regulatory or permitting framework.

Most treatments require maintenance; however, the maintenance interval varies widely. For example, treatment in tree-dominated vegetation types might initially involve a mechanical or manual treatment to reduce surface and ladder fuels. Following that initial activity, prescribed burning could be used at 10- to 15-year intervals to maintain the lower fuel hazard in consideration of the natural fire return interval of the vegetation community and other environmental factors as well as treatment objectives. Maintenance intervals may vary greatly and are generally related to the vegetation life form, landscape location (e.g., climate and soil types influence plant regrowth), and activity type.

Maintenance treatments may occur as needed at the discretion of the project proponent, CAL FIRE, and will be conducted under the expressed approval of the Landowner pursuant to all regulatory authorizations.

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

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

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

- ☒ Prescribed (Broadcast) Burning, 762 acres
- ☒ Prescribed (Pile) Burning, 762 acres
- ☒ Mechanical Treatment, 762 acres
- ☒ Manual Treatment, 762 acres
- ☐ Prescribed Herbivory, _____ acres
- ☒ Herbicide Application, 762 acres

11. **Fuel Type** [*see description in in CalVTP PEIR Section 2.4.1, check every applicable category; provide detail in Description of Project*]

- ☒ Grass Fuel Type
- ☒ Shrub Fuel Type
- ☒ Tree Fuel Type

12. **Geographic Scope** [Refer to [to be determined] for a map of the CalVTP treatable landscape, check one box]

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

While most of the project area would be inside, portions of the project area would extend outside of the treatable landscape described in the CalVTP PEIR. In total, the areas outside the treatable landscape encompass approximately 42.8 acres of the 132.25-acre project area at San Simeon Point; they are dispersed in small sections of the project area (refer to Figure 9). The scattered array of non-treatable acres are isolated pixels surrounded by treatable SRA. The areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or at least substantially similar, landscape conditions (including similar vegetation types and physical characteristics) as the areas within the treatable landscape, therefore; the environmental analysis in the PEIR would be applicable.

Areas within the mapped project boundary that are not within the treatable landscape will primarily be used for treatment access, equipment staging, and possible prescribed burn operations. No direct treatment is proposed in these areas.

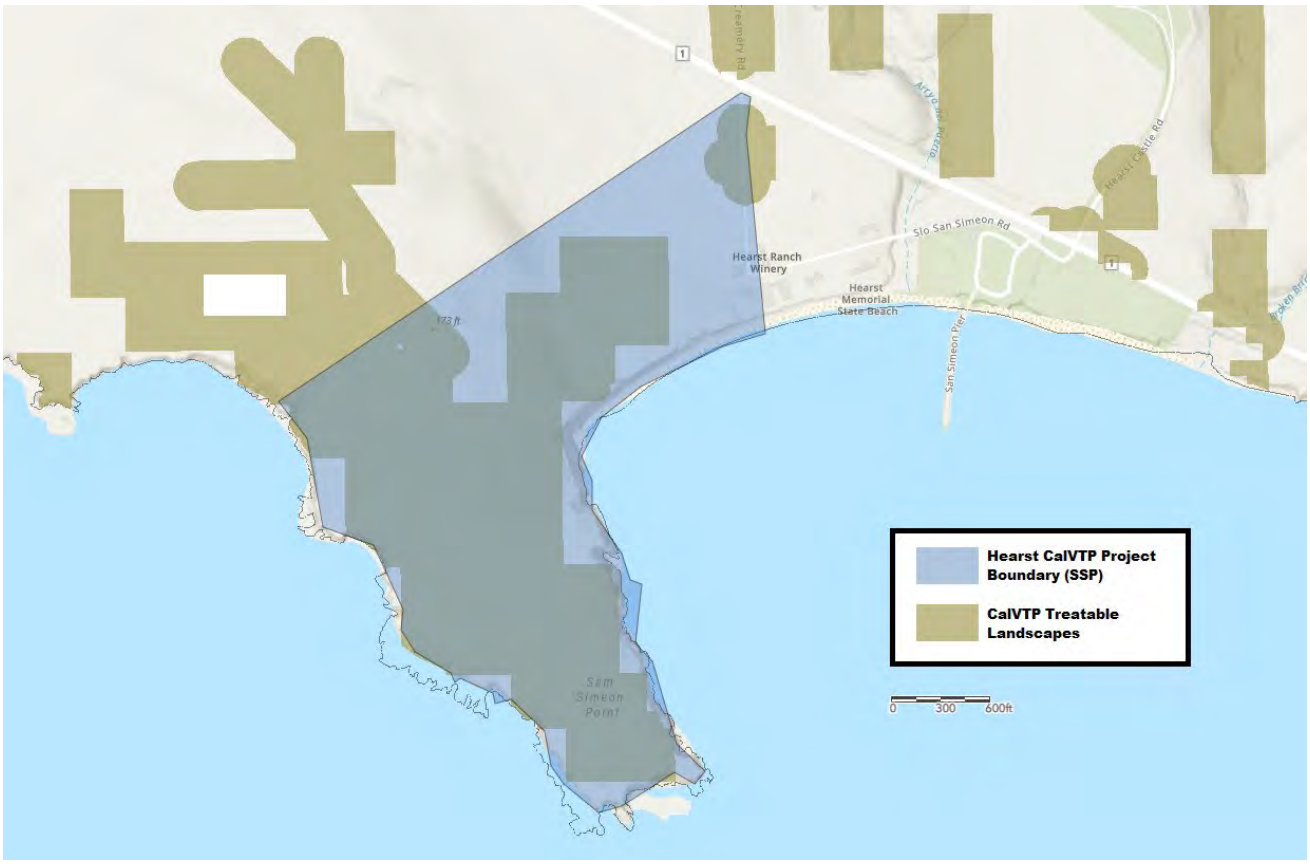


Figure 9 Treatable Landscape; San Simeon Point

13. **Surrounding Land Uses and Setting:** (Briefly describe the project's surroundings)

San Simeon Point

Vegetation and Setting

San Simeon Point (SSP) predominantly consists of a historic Monterey pine (*Pinus* radiata), Monterey cypress (*Hesperocyparis macrocarpa*), and blue gum eucalyptus (*Eucalyptus globulus*) plantation introduced to the site in the early 1900s. While the exact date of planting is unknown, aerial imagery from 1937 (Figure 8) depicts a relatively young stand of cypress at the time, planted as a wind row along the western bluffs of SSP. The denser, seemingly more mature stand of eucalyptus delineated in orange was likely planted around the same time period, but naturally grows at a much faster rate than the more well-dispersed, native closed-cone conifer species or oaks in the region. Monterey pine is present on San Simeon point, but mostly intermixed among the more predominant species. It is assumed that the plantation was first implemented on SSP following the deconstruction of historic whaling infrastructure that once existed on the peninsula until the late 1800s.

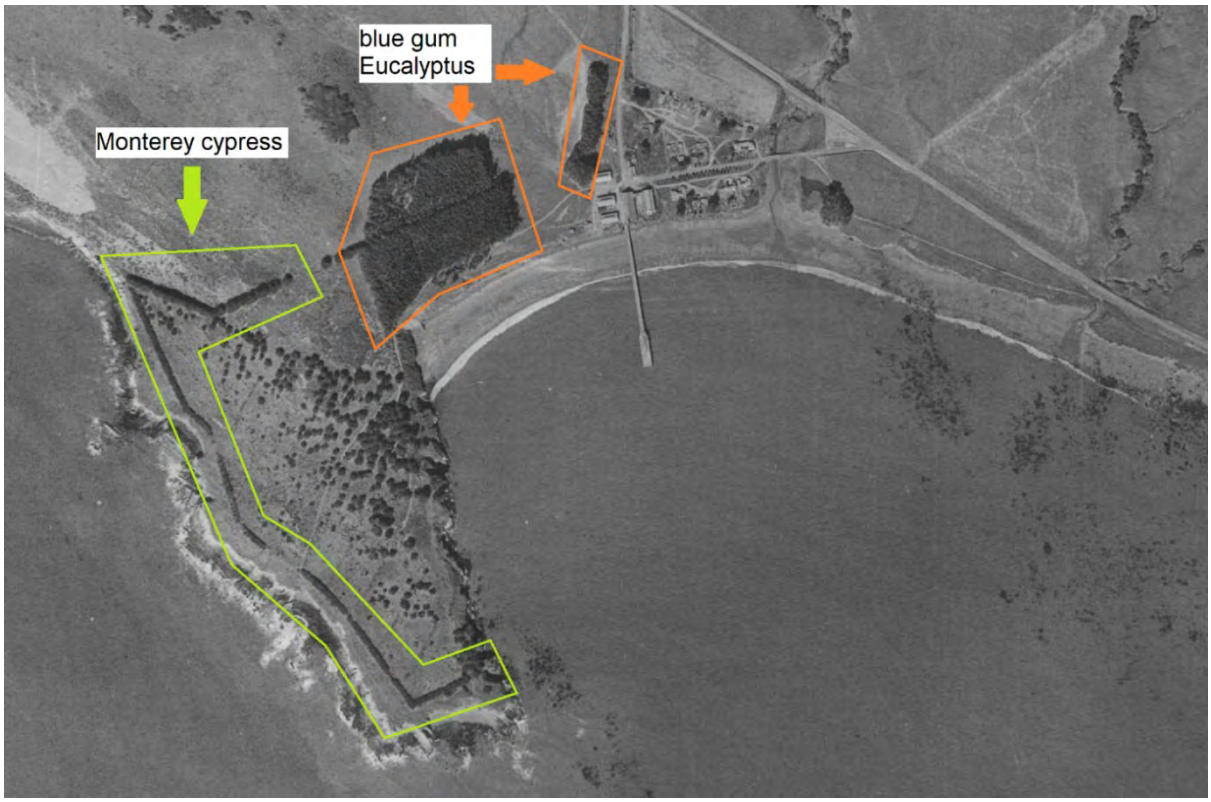


Figure 10 San Simeon Point circa 1937 showing the planted cypress and eucalyptus groves

Figure 9 below provides a vegetation map developed in 2022 following an in-field assessment of San Simeon Point (SSP). Vegetation types were developed utilizing existing CAL FIRE's Fire and Resource Assessment Program (FRAP) data in conjunction with the Manual of California Vegetation (MCV) maintained by the California Native Plant Society (CNPS). Naming conventions from the MCV were utilized. Primarily unconverted since the early 1900s, SSP maintains its Monterey cypress, pine, and eucalyptus components within the general footprints in which they were planted. Coastal scrub communities border the interior forested stands and are sparsely populated with shrubs and perennial grasses situated on sandy, well-drained soils. The northern, inland portion of the project area at SSP abruptly transitions into annual grasslands used as working cattle ranges. No direct or specific treatments are proposed within coastal scrub habitat or perennial grasslands but these areas may be involved in treatment activities as a product of treatments in vegetation types surrounding mapped coastal scrub and perennial grasslands (i.e., prescribed burning).

Monterey cypress trees on SSP do not often exceed 80-100 ft in height and are densely packed in groves as ground fuel, woody material, and new growth has accumulated in these stands over time. Cypress trees towards the southern portion of SSP, as they approach the tip of the peninsula, are seemingly stunted in comparison to those growing in the northwestern region of the project area where topographic draws with deeper soils appear to be present.

Evidence of windthrow is readily observable across SSP as large accumulations of fallen material exist frequently within the project area. Ranch operations on SSP allow for cattle to roam the project area where bulls are often active in cypress and eucalyptus stands during rutting season, digging deep pits near the bases of trees in the sheltered interiors of groves.

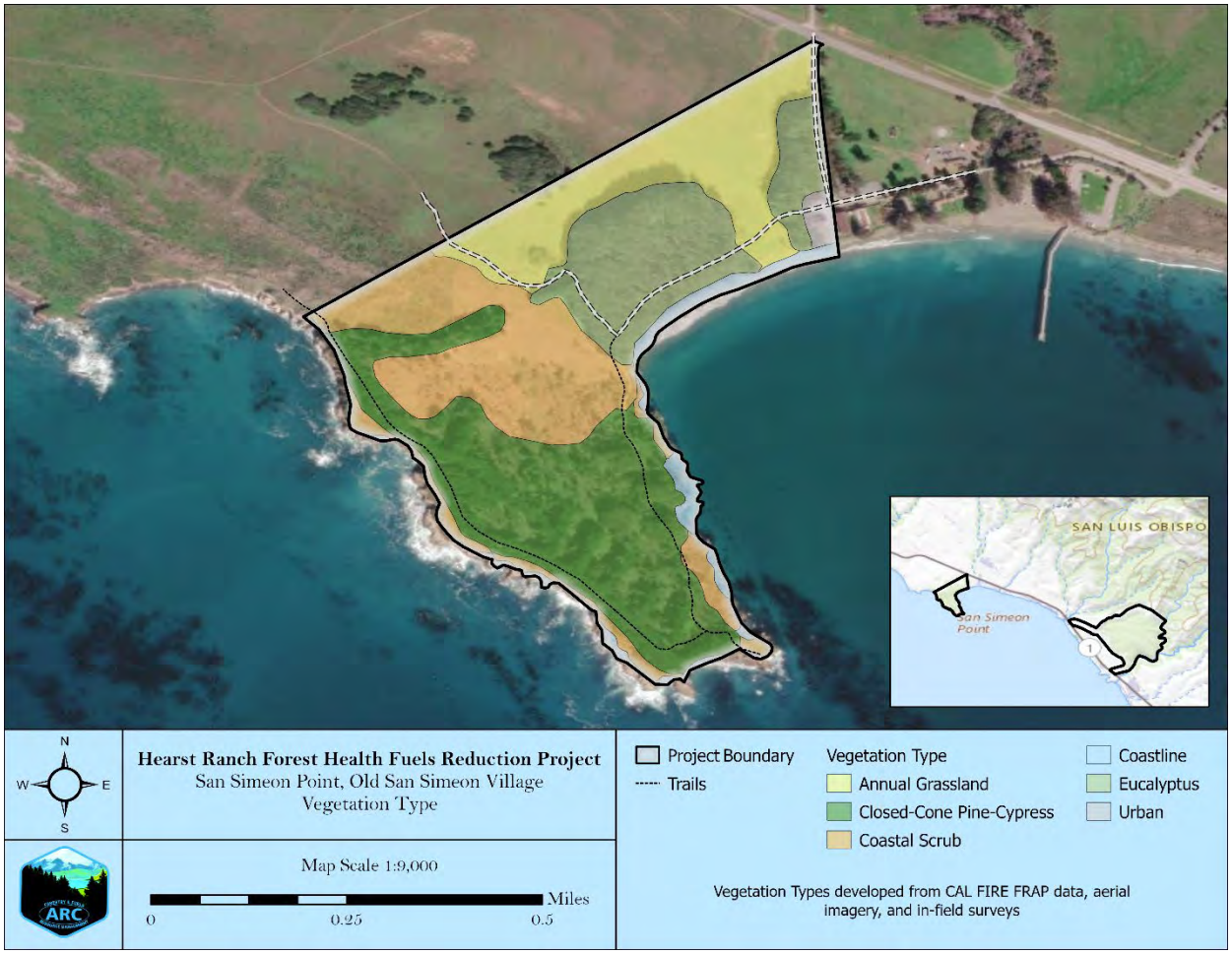


Figure 11 San Simeon Point existing vegetation types

Pico Creek Monterey Pine Stand

Vegetation and Setting

Proposed treatment activities at the Pico Creek Monterey pine stand (PCMP) focus on restoring one of five naturally occurring Monterey pine forests in the world to native ecological conditions for long-term forest health, systematic wildfire regimes, wildlife abundance, carbon sequestration, and resilience of are botanical alliances. Of the three native Monterey pine populations in California, the other two located in San Mateo/Santa Cruz and Monterey Counties, the rare pine forests of the Cambria/San Simeon region in San Luis Obispo County have been deemed exceptionally sensitive and in need of ecological restoration by land managers, foresters, and resource professionals for decades. The historic native range of Monterey pine once extended from its current southern extent in Cambria southward along the Pacific Coast to Mexico, where fossilized cones of the species have been discovered[4], forming a connection to the species' remaining two island-based populations off the coast of the Baja Peninsula. The cones of the Monterey pine are serotinous and dependent on fire or high temperatures to release their seeds; therefore, this species is localized to fire- adapted environments where natural regeneration

[4] https://evolution.berkeley.edu/the-monterey-pine-through-geologic-time/

occurs. Commonly associated with western hardwood communities and may occur with other closed-cone pine species such as knobcone pine (*Pinus attenuata*) and bishop pine (*Pinus muricata*). Monterey pine can typically be found between 197-410 ft elevation.

The project area at Pico Creek encompasses one of the region's most intact native Monterey pine stands on the coast. Predominantly untouched by historic development, the forest at Pico Creek is situated between two coastal tributaries – Pico Creek to the south and Little Pico Creek to the north. Pico Creek splits into two forks approximately one mile upstream from its mouth, where the sinuous channel of North Fork Pico Creek forms most the eastern project boundary. The Monterey pine trees at Pico Creek do not generally exceed 100 feet in height, on average. Some dominant specimens with ample growing space; however, were observed to be as tall as 110-120 feet during in-field reconnaissance. Radial core samples extracted from representatives of the oldest, largest individuals within the project boundary produced age estimates of 80-85 years old at approximately 40-50 inches in diameter at breast height (DBH). Monterey pine trees within their native range typically reach the end of their individual life spans after 70-100 years, and rarely survive beyond 140-150 years[5].

The mature pine forest at Pico Creek, like its regional cohorts, is in its decadent stages, possessing significant components of dead, dying, and diseased trees, deformed growth characteristics, varying levels of pathogenic agents, hazardous fuel accumulations in the understory and within the vertical crown structure, and excessive densities and competition among regrowth and existing flora.

On the margins of the mostly interior Monterey pine forest within the project boundary, hardwood communities, primarily comprised of coast live oak (*Quercus agrifolia*), form the eastern and southeastern portions of the proposed treatment area. Conifer-hardwood communities where Monterey pine is intermixed with oak populations serve as valuable habitat transition zones between the two dominant vegetation types at Pico Creek. Surrounding the forested areas and included as 2- to 8-acre patches within the interior, annual grasslands define the expansive range beyond the Monterey pines and oak woodlands.

Domestic livestock are present within the project bounds at both San Simeon Point and Pico Creek Monterey Pine Stand and exist as part of Hearst Ranch's active agricultural and cattle operations.

[5] https://www.srs.fs.usda.gov/pubs/misc/ag_654/volume_1/pinus/radiata.htm

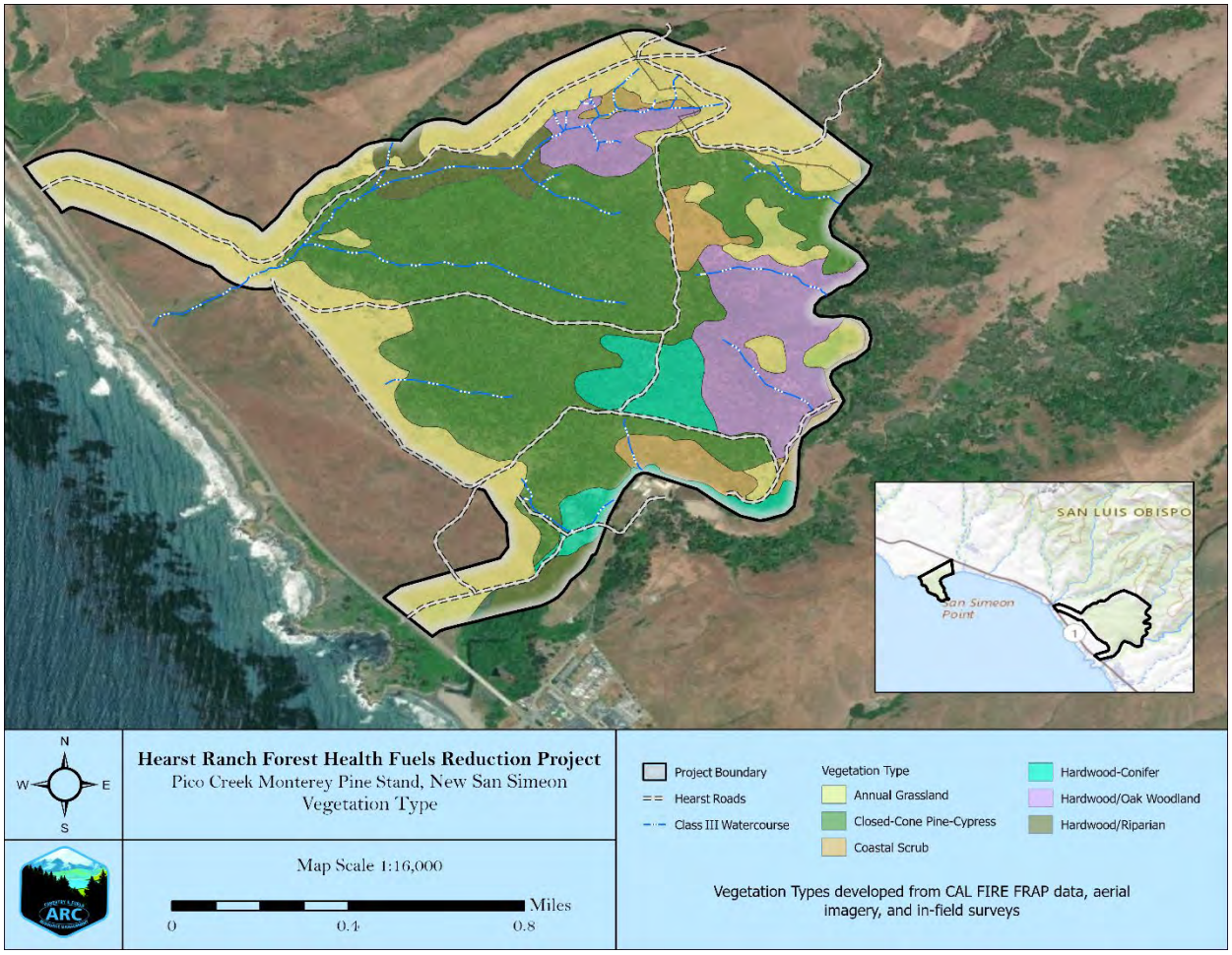


Figure 12 Pico Creek Monterey Pine Stand existing vegetation types

14. **Other public agencies whose approval is required**: (e.g., permits)

The proposed project is within the Coastal Zone of San Luis Obispo County, as defined by the California Coastal Act, and subject to the Environmentally Sensitive Habitat Area standards required in SPR BIO-8 in the PEIR (CalVTP Final PEIR Volume II Section 2.7.5, 43). The *Upper Salinas-Las Tablas Resource Conservation District Forest Health and Fire Resilience Public Works Plan* (US-LT RCD PWP) establishes Vegetative Treatment Standards for CalVTP projects within the San Luis Obispo County Coastal Zone in lieu of a coastal development permit. The PWP was developed in consultation with the California Coastal Commission and the San Luis Obispo County Planning and Building Department to ensure projects proposed within the Coastal Zone of San Luis Obispo County are designed in accordance with all county and local ordinances, policies, and regulations including, but not limited to, those outlined in the San Luis Obispo County Local Coastal Program (LCP) (Title 23 of the San Luis Obispo County Code, Chapter 5, Sections 60-64).

The San Luis Obispo County Air Pollution Control District (SLO APCD) will be consulted by CAL FIRE prior to implementing prescribed burning treatment activities. In addition to their recommendations, a burn plan and smoke management plan will be prepared by CAL FIRE prior to prescribed burn operations pursuant to SPR AQ-3.

The California Department of Fish and Wildlife (CDFW) was notified during the development phase of this project and declined to attend an initial field visit on September 27, 2022. Follow-up email correspondence including project updates involving proposed treatments and protection measures were sent on March 8, 2023; no further comment or request for consultation has been received to date. Correspondence attached (Attachment C).

The Unites States Fish and Wildlife Service (USFWS) was consulted during the development phase of this project and attended an initial field visit on September 27, 2022. Follow-up email correspondence including project updates involving proposed treatments and protection measures were sent on March 8, 2023. USFWS provided comments to the PSA on April 17, 2023, and a phone conference was conducted on April 25, 2023 to further address comments. USFWS comments and revisions were incorporated into the document and cleared with USFWS on May 1, 2023. Correspondence attached (Attachment C).

The Central Coast Regional Water Quality Control Board (CCRWQCB) was consulted during the planning phase of this project and attended an initial site visit on September 27, 2022. Follow-up correspondence and project updates involving proposed treatments and protection measures were sent on March 8, 2023 and no further comment has been received to date. Correspondence attached (Attachment C).

The California Department of Transportation (Cal Trans) Scenic Highway Coordinators for San Luis Obispo County were notified of this project in regard to its proximity to State Scenic Highway Route 1 on April 20, 2023. No response has been received to date. Additionally, the County of San Luis Obispo Planning Department Coastal Division was contacted on October 6, 2023 regarding Scenic Highway designation considerations. The County differed to project approval under the Public Works Plan as meeting the scope of the Scenic Corridor Protection Plan. No concerns were expressed.

15. **Native American Consultation**. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation before the release of an environmental impact report, negative declaration, or mitigated negative declaration. For treatment projects that require additional CEQA review and documentation, have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Note: For treatment projects that are within the scope of this PEIR, AB 52 consultation has been completed. The Board of Forestry and Fire Protection and CAL FIRE completed consultation pursuant to Public Resources Code section 21080.3.1 in preparation of the PEIR.
An archaeological records check request for the project area was sent to the Central Coast Information Center (CCIC) at UC Santa Barbara on August 26th, 2022 and fulfilled on September 6th, 2022. Due to the confidentiality of the records check, results may be available to qualified personnel upon request, see the archaeological, historical, and tribal cultural resources discussion below.

CAL FIRE Associate State Archaeologist Denise Ruzicka was consulted during the planning phase of the proposed project and visited project sites in October of 2022 to provide support during in-field archaeological surveys. In addition, a notification letter was sent to geographically affiliated tribes on September 12, 2022, and a full Archaeological Survey Report (ASR) will be completed and submitted to the CCIC prior to project implementation.

As of January 10, 2023, no further requests or responses have been received from Native American tribal groups or representatives.

16. **Use of PSA for Treatment Maintenance:**
[Prior to implementing a maintenance treatment, the project proponent would verify that the expected site conditions as described in the PSA are present in the treatment area. As time passes, the continued relevance of the PSA would be considered by the project proponent in light of potentially changed conditions or circumstances. Where the project proponent determines that the PSA is no longer sufficiently relevant, the project proponent would determine whether a new PSA or other environmental analysis is warranted. In addition to verifying that the PSA continues to provide relevant CEQA coverage for treatment maintenance, the project proponent would update the PSA at the time a maintenance treatment is needed when more than 10 years have passed since the approval of the PSA or the latest PSA update. For example, the project proponent may conduct a reconnaissance survey to verify that conditions are substantially similar to those anticipated in the PSA. Updated information should be documented.]

Prior to retreating any area within the project boundary, the project proponent will verify that site conditions described in the PSA are still relevant. CAL FIRE's contract with the landowner is for 10 years while the current Public Works Plan (PWP) within the Coastal Zone expires in October 2031. The landowner can enter into a new agreement with CAL FIRE, and a new PSA may be developed if conditions change substantially. If a new contract is not initiated, it is at the discretion of the landowner to maintain the project area to maintain conservation values and continue the ecological and fire resilience goals set forth in this PSA.

17. **Standard Project Requirements and Mitigation Measures.** [*Refer to Attachment A to identify which SPRs and Mitigation Measures apply to the project. Complete Attachment A to document the responsible party for each applicable SPR and Mitigation Measure. Check one box below.*]

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

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

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

Explanation:

DETERMINATION (To be completed by the project proponent)

On the basis of this initial evaluation:

☒ I find that all of the effects of the proposed project (a) have been analyzed adequately in the CalVTP PEIR, (b) have been avoided or mitigated pursuant to the CalVTP PEIR, and (c) all applicable mitigation measures and Standard Project Requirements identified in the CalVTP PEIR will be implemented. The proposed project is therefore **WITHIN THE SCOPE** of the CalVTP PEIR. NO ADDITIONAL CEQA DOCUMENTATION is required.

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

☐ I find that the proposed project will have effects that were not examined in the CalVTP PEIR. Although these effects might be significant in the absence of additional mitigation beyond what is already required pursuant to the CalVTP PEIR, revisions to the proposed project or additional mitigation measures have been agreed to by the project proponent that would avoid or reduce the effects so that clearly no significant effects would occur. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project will have environmental effects that were not examined in the CalVTP PEIR. Because these effects are or may be significant and cannot be clearly mitigated, an ENVIRONMENTAL IMPACT REPORT will be prepared.

Signature: DocuSigned by: David Fulcher E587C42F1CF2420... Date: 12/11/2023

Printed Name: David Fulcher Title: Southern Region Chief

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION
CAL FIRE
Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for each Impact, Standard Project Requirement (SPR) and Mitigation Measure (MM) identified in the Project-Specific Analysis Checklist (PSA Checklist). The information provides clarity for review and/or provides direction to the field staff that will implement the project utilizing the checklist (persons familiar with the project and preparation of the document may be different through the life span of the document). Answers should consider whether the proposed project would result in new or more substantial environmental effects than described in the CalVTP PEIR, after incorporation of applicable SPRs and MM required by the CalVTP PEIR.
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and short-term as well as long-term impacts. Refer to the applicable resource analysis section in the CalVTP PEIR for each environmental topic.
3. Once the project proponent has evaluated the environmental effect that may occur, then the checklist answers must indicate whether the impact is:
   (Definitions located in Chapter 3 – "Environmental Settings, Impacts, and Mitigation Measures, 3.1.4 – Terminology Used In the PEIR")
   - **Less Than Significant (LTS)** - An impact either on its own or with incorporation of SPRs, does not exceed the defined thresholds of significance (no mitigation required), or that is potentially significant and can be reduced to less than significant through implementation of feasible mitigation measures.
   - **Less Than Significant *with* Mitigation (LTSM)** - An impact was identified within the PEIR which was viewed in totality as potentially significant and/or significantly unavoidable and the mitigation measures and SPRs and MMs provided in the PEIR will be implemented mitigating to a point of less than significance.
   - **Potential Significant (PS)** - An impact treated as if it were a significant impact. "Potentially" is used to convey that not every qualifying treatment will result in impacts to the reasonably maximum degree that they are disclosed in this PEIR.
   - **Potentially Significant and unavoidable (PSU)** - An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level. "Potentially" is used to convey that not every qualifying treatment will result in impacts to the reasonably maximum degree that they are disclosed in this PEIR
   - **Significantly Unavoidable (SU)** - An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level.
   - **Not applicable (N/A)**

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

6. Standard Project Requirements (SPR) and Mitigations Measures (MM).
    - **Applicable (Yes/No).** Document whether the SPR or mitigation measure is applicable to the project (Yes or No). The applicability should be substantiated in the Environmental Checklist Discussion.
    - **Implementing Entity**. Most cases this will be CAL FIRE. The implementing entity is the individual or organization responsible for carrying out the requirement. This could include the project proponent's project manager, a technical specialist (e.g., archeologist or biologist), a vegetation management contractor, a partner agency or organization, or other entities that are primarily responsible for carrying out each project requirement.
    - **Verifying/Monitoring Entity**. Most cases this will be CAL FIRE in coordination with the US-LT RCD who will partner with other agencies, landowners, contractors, and others to implement the responsibilities above and shall maintain oversight to confirm that all work is consistent with the PWP and NOID processes. The verifying/monitoring entity is the individual or organization responsible for ensuring that the requirement is implemented. The verifying/monitoring entity may be different from the implementing entity.
    - **NOTE**: the cited SPRs and MMs are summarized to manage the templet's size. Refer to the approved CalVTP language attached for the full list of requirements.

EC-1: AESTHETICS AND VISUAL RESOURCES

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	Impact AES-1, 3.2	LTS	SPR AES- 2 SPR AQ- 2, 3 SPR REC-1	Yes	LTS	☒

The project area is entirely on private property and divided between two sites, both of which are visible from California State Route 1 (HWY 1) – an officially designated California State Scenic Highway. During project implementation, the project sites will not be accessible to the public and no public recreational trails exist within the project areas or public viewsheds. Treatment zones proposed at Pico Creek are situated at a minimum of 1,200 feet from HWY 1 and occur on private property inaccessible to the public. Public access to San Simeon Point will be temporarily suspended while treatment operations occur on the site. Project work may be visible from San Simeon Road in Old San Simeon Village during implementation, but treatments within this viewshed are designed to reduce dead fuel loads and the overaccumulation of downed woody material within non-native eucalyptus stands, ultimately enhancing the overall aesthetic of these groves.

Potential for the proposed treatment type to result in short-term degradation of the visual character of an area was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.2.3, 16-19). Project equipment may temporarily travel along HWY 1 and San Simeon Road during implementation of the proposed treatments. Most of the proposed work will occur in dense forested stands, outside of the viewshed of travelers on HWY 1.

Smoke generated from prescribed burning activities would not result in substantial short-term aesthetic impacts as burning would be temporary. Per SPR AES-2, equipment would be staged outside of viewsheds of public trails, parks, recreation areas, and roadways to the extent feasible. Prescribed burn activities will predominantly occur outside of the public viewshed and within the interior of project treatment areas.

Based on the implementation of the applicable SPRs and the nature of the treatment types, the potential for this project to result in short-term substantial degradation of the visual character of the project site or damage to scenic resources would be less than significant.

Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	Impact AES-2, 3.2	LTS	SPR AES- 1 SPR AES- 3 SPR AD- 4 SPR REC- 1	Yes	LTS	☒
The project area is entirely on private property and divided between two sites, both of which are visible from California State Route 1 (HWY 1) – an officially designated California State Scenic Highway. During project implementation, the project sites will not be accessible to the public and trails within the public viewshed will be temporarily closed during operations for public safety. Treatment zones proposed at Pico Creek are situated at a minimum of 1,200 feet from HWY 1 and occur on private property inaccessible to the public. Public access to San Simeon Point will be temporarily suspended while treatment operations occur on the site. Project work may be visible from San Simeon Road in Old San Simeon Village; however, by way of implementation of SPR AES-1 and SPR AES-3, edges of the treatment area will be feathered, and sufficient vegetation will be preserved to screen treatments from public view where feasible. *Work occurring on San Simeon Point, where public access is granted throughout most of the year, will be predominantly focused on the reduction of dead, dying, and diseased material and excessive downed woody debris that provides hazardous fuel loads and barriers to wildlife. Treatment activities proposed on San Simeon Point are designed to enhance the overall aesthetic and visual character of its non-native forest stands, promote wildlife usage, and maintain public access and safety on this scenic vista.* *Potential for the proposed treatment type to result in short-term degradation of the visual character of an area was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.2.3, 20-22). Project equipment may temporarily travel along HWY 1 and San Simeon Road during implementation of the proposed treatments. Most of the proposed work will occur in dense forested stands, outside of the viewshed of travelers on HWY 1.* *Smoke generated from prescribed burning activities would not result in substantial short-term aesthetic impacts as burning would be temporary. Per SPR AES-2, equipment would be staged outside of viewsheds of public trails, parks, recreation areas, and roadways to the extent feasible. Prescribed burn activities will predominantly occur outside of the public viewshed and within the interior of project treatment areas.* *Based on the implementation of the applicable SPRs and the nature of the treatment types, the potential for this project to result in short-term substantial degradation of the visual character of the project site or damage to scenic resources would be less than significant.*						
Impact AES-3: Result in Long-Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Non-Shaded Fuel Break Treatment Type	Impact AES-3, 3.2	SU	MM AES- 3	No	N/A	☒

The proposed project does not involve a Non-Shaded Fuel Break Treatment Type.						
Other Impacts to Aesthetics: Would the project result in other impacts to aesthetics that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has evaluated and considered site specific characteristics to determine that the project treatments are consistent with the CalVTP PEIR's environmental and regulatory settings (CalVTP Final PEIR Volume II Sections 3.2.1 and 3.2.2). No changed circumstances would lead to new significant impacts not addressed in the CalVTP PEIR. Therefore, no new impact related to aesthetics and visual resources would occur that is not covered in the PEIR.						

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR AES-1 Vegetation Thinning and Edge Feathering: This SPR only applies to mechanical and manual treatment activities within all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Pre-field work to determine treatment types and boundaries will consider topographical features with the intent to create irregular vegetation densities and treatment area size to mimic natural conditions. Treatments within San Simeon Point viewshed are designed to reduce dead fuel loads and the overaccumulation of downed woody material within non-native eucalyptus stands, ultimately enhancing the overall aesthetic of these groves. If there are areas within the mechanical treatment areas that cannot be completed with the use of equipment due to equipment limitations, they will be treated with manual treatment methods.			
SPR AES-2 Avoid Staging within Viewsheds: This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Most of the proposed work will occur in dense forested stands on private property, within the interior of project treatment areas, outside of the viewshed of the public. During project implementation, the project sites will not be accessible to the public and trails within the public viewshed will be temporarily closed during operations for public safety.			
SPR AES-3 Provide Vegetation Screening: This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
This project is located on private property and treatments will predominantly occur outside of public viewsheds. San Simeon Point - Project work may be visible from San Simeon Road in Old San Simeon Village during implementation, but treatments within this viewshed are			

designed to reduce dead fuel loads and the overaccumulation of downed woody material within non-native eucalyptus stands, ultimately enhancing the overall aesthetic of these groves. Pico Creek - Project area is visible from Hwy 1. However, most of the proposed work will occur in dense forested stands, within the interior of project treatment areas, outside of the viewshed of travelers on HWY 1.			
MM AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks	No	CAL FIRE N/A	CAL FIRE
This project does not propose non-shaded fuel break treatments.			

EC-2: AGRICULTURE AND FOREST RESOURCES

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact AG-1: Result Directly in the Loss of Forest Land or Conversion of Forest Land to a Non-Forest Use or Involve Other Changes in the Existing Environment Which, Due to Their Location or Nature, Could Result in Conversion of Forest Land to Non-Forest Use	Impact AG-1, 3.3	LTS	N/A	Yes	LTS	☒

The Ecological Restoration Treatment Type being proposed for this project will involve vegetation removal predominantly within forested areas designated as the tree fuel type. The potential for the proposed treatment to result in the loss of forest land was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.3.3, page 7-8). Treatments Activities proposed for this project include mechanical mulching/mastication, manual treatments, broadcast and pile burning, and limited herbicide use - none of which will reduce forest land to less than 10% native tree cover of any species *or result in the conversion of forest land to non-forest use, as defined by CA PRC Section 12220(g).*

Vegetation management has the potential to improve the forest stand conditions by removing competitive vegetation and introducing low-impact disturbance to the forest floor, allowing scarification and natural germination of disturbance-dependent tree species. Beneficial long-term effects resulting in increased natural regeneration of Monterey pine, oak, and associated botanical alliances are expected to occur. Stocking levels will be maintained well above 10% tree cover.

Activities and treatments proposed in this plan are not designed to result in the loss of forest land or convert forest land to non-forest types. Proposed treatments do not remove trees for commercial purposes and do not remove live trees established in the overstory canopy due to

the 8-inch diameter at breast height (DBH) limitation in the treatment prescription. Treatments are designed to retain dominant vegetation types, promote existing ecosystem habitat value, and avoid conversion of forest land to non-forest land.

Although this project proposes the removal of understory vegetation and ladder fuels, treatments would improve the health and vigor of the forest and develop conditions more resilient to climate change and natural disturbance events. Based on the treatment activities and beneficial results of the proposed project, no forestland, timberland, or farmland will be converted, and any impact would be less than significant.

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

The proposed project treatment is consistent with the treatments and activities that are considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed project and determined that they are consistent with the environmental and regulatory settings stated in the CalVTP PEIR (CalVTP Final PEIR Volume II 3.3.1 and 3.3.2). No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to agriculture and forestry resources would occur that is not covered in the PEIR.

EC-3: AIR QUALITY

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	Impact AQ-1, 3.4	PSU	SPR AD- 4 SPR AQ- 2, 6 MM AQ- 1	Yes	LTSM	☒
Use of vehicles, mechanical equipment, and prescribed burning during treatments would result in emissions of criteria pollutants that could exceed CAAQS or NAAQS thresholds. Emissions of criteria air pollutants related to the proposed treatment are within the scope of the impacts addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, page 26-33) because the proposed activities, as well as the associated equipment and duration of use, are consistent with those analyzed in the PEIR. *The emission reduction techniques outline in Mitigation Measure AQ-1 have been reviewed by the project proponent, CAL FIRE, and will be implemented prior to, during, and following treatment operations to the extent feasible. These techniques may include, but are not limited to, substituting the use of gasoline-powered equipment for diesel-powered equipment and encouraging carpooling to the project site.* *Diesel-powered off-road equipment used for treatment operations 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 to the extent feasible.*						
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	Impact AQ-2, 3.4	LTS	SPR HAZ- 1 SPR NOI- 4 SPR NOI- 5	Yes	LTS	☒
The use of vehicles and mechanical equipment during initial and maintenance treatments could expose people to diesel particulate matter emissions. The potential to expose people to diesel particulate matter was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, page 33-34). *The proposed treatments will occur over a short duration and would not occur next to the same people for an extended period of time. The proposed treatments comply with SPR AQ-1, HAZ-1, NOI-4, and NOI-5, which requires compliance with all applicable air quality regulations, equipment to be maintained, activities and staging areas to be located away from human receptors and restricts equipment idling time.*						

Diesel particulate matter emissions from the proposed project and its impacts are within the scope of the PEIR and treatment activities are consistent with those addressed in the PEIR. *There are no changes in circumstances that would occur in the proposed project that were not evaluated in the PEIR; therefore, the impacts of this project would remain less than significant.*						
Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	Impact AQ-3, 3.4	LTS	SPR AQ-4, 5	No	N/A	☒
This impact does not apply to this proposed treatment because no naturally occurring asbestos appears to be located in the treatment areas per maps published by the California Geologic Survey. Therefore, no impact will occur in relation to fugitive dust emissions containing naturally occurring asbestos.						
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	Impact AQ-4, 3.4	PSU	SPR AD- 4 SPR AQ-2, 6	Yes	PSU	☒
Prescribed broadcast and pile burn treatments could expose people to toxic air contaminants. The duration and parameters of the prescribed burn treatments are within the scope of the activities addressed in the PEIR; therefore, the potential for exposure to toxic air contaminants is also within the scope of impacts covered in the PEIR. The project proponent, CAL FIRE, will prepare a burn plan (Appendix PD-2) and consult with San Luis Obispo County Air Pollution Control District (SLO APCD) prior to the implementation of prescribed burn treatment activities. *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 PEIR.*						
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	Impact AQ-5, 3.4	LTS	SPR HAZ- 1 SPR NOI-4, 5	Yes	LTS	☒
The use of vehicles and mechanical equipment during initial and maintenance treatments may expose human receptors to the objectional odors from diesel exhaust. The potential to expose human receptors to diesel exhaust was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, 37-38). The release of objectional odors from diesel exhaust during proposed treatments is within the scope of the impacts stated in the PEIR because the treatment activities are consistent with those analyzed in the PEIR. *This project will comply with the following applicable SPRs to minimize the potential for impacts on diesel exhaust exposure: properly maintain all diesel and gasoline-powered equipment (HAZ-1), stage all equipment as far as possible from noise-sensitive receptors (NOI-4),*						

and restrict equipment idle time (NOI-5). The implementation of these SPRs will reduce the amount of exhaust emissions produced by equipment by restricting idle time. *Based on the staging area location requirements, suspension of public access, potential road closures, operation limitations, and equipment maintenance it is likely that the impacts of this project will remain less than significant.*						
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	Impact AQ-6, 3.4	PSU	SPR AD- 4 SPR AQ- 2, 6	Yes	PSU	☒
Prescribed broadcast and pile burn treatments could expose people to objectionable odors. The duration and parameters of the pile and burn treatments are within the scope of the activities addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, 37-38); therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the PEIR. The project proponent, CAL FIRE, will prepare a burn plan (Appendix PD-2) and consult with San Luis Obispo County Air Pollution Control District (SLO APCD) prior to the implementation of prescribed burn treatment activities. *All feasible measures to prevent and minimize smoke odors as well as exposure to smoke odors are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the PEIR.*						
Other Impacts to Air Quality: Would the project result in other impacts to air quality that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities evaluated in the CalVTP PEIR. The project proponent, CAL FIRE, has considered the site-specific characteristics of the proposed treatment project and will pursue consistency with the regulatory standards of San Luis Obispo County Air Pollution Control District prior to implementation of treatment activities. *The proposed treatment is consistent with the treatment types and activities evaluated in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the regulatory and environmental settings as stated in the PEIR (CalVTP Final PEIR Volume II 3.4.1 and 3.4.2).* *No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to air quality would occur that is not analyzed in the PEIR.*						

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity

SPR AQ-1 Comply with Air Quality Regulations: This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
CAL FIRE policy requires all vegetation treatments utilizing prescribed broadcast and pile burning will comply with air quality regulations for their air district. A Smoke Management Plan (Appendix PD-2) will be submitted to the San Luis Obispo County Air Pollution Control District (SLO APCD) prior to burning and a burn permit from the SLO APCD will be obtained.			
SPR AQ-2 Submit Smoke Management Plan: This SPR applies only to prescribed burning treatment activities and all treatment types.	Yes	CAL FIRE Prior	CAL FIRE
The project proponent, CAL FIRE, will develop a smoke management plan (Appendix PD-2) to be reviewed by the San Luis Obispo County Air Pollution Control District (SLO APCD) prior to implementation of prescribed burning treatment activities. An example CAL FIRE burn plan/SMP template has been included as Attachment H.			
SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. This SPR applies only to prescribed burning treatment activities and all treatment types**.**	Yes	CAL FIRE Prior	CAL FIRE
The project proponent, CAL FIRE, will develop a comprehensive burn plan (Appendix PD-2) prior to implementation of prescribed burning treatment activities. An example CAL FIRE burn plan/SMP template has been included as Attachment H.			
SPR AQ-4 Minimize Dust: This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE During	CAL FIRE
Measures within SPR AQ-4 will be implemented to minimize dust during treatments.			
SPR AQ-5 Avoid Naturally Occurring Asbestos: This SPR applies to all treatment activities and treatment types.	No	CAL FIRE N/A	CAL FIRE
There is no naturally occurring asbestos mapped within the treatment area per USGS publications.			
SPR AQ-6: Prescribed Burn Safety Procedures: Prescribed burns will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP).	Yes	CAL FIRE Prior-During	CAL FIRE
CAL FIRE requires the burn boss to prepare an incident action plan which identifies burn dates; burn hours; weather limitations; specific burn prescription; communication plan; medical plan; traffic plan; and other special instructions. The Incident Action Plan will also identify			

personnel to coordinate with the local air district (SLO APCD) for onsite briefings, posting notifications, and weather monitoring during burn treatments.			
MM AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment.	Yes	CAL FIRE During	CAL FIRE
The emission reduction techniques outline in Mitigation Measure AQ-1 have been reviewed by the project proponent, CAL FIRE, and will be implemented prior to, during, and following treatment operations to the extent feasible. These techniques may include, but are not limited to, substituting the use of gasoline-powered equipment for diesel-powered equipment and encouraging carpooling to the project site.			

EC-4: ARCHEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources	Impact CUL-1, 3.5	LTS	SPR CUL-1, 7, 8	No	N/A	☒
Initial and maintenance treatments would include mechanical and pile and burning treatment activities that utilize heavy equipment and will result in ground disturbance. The potential for these treatments to cause a substantial adverse change in significance to built historical resources was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 14-15). The potential to change the significance of built historical resources during project operations is within the scope of the PEIR because the treatment activities and level of disturbance are consistent with those addressed in the PEIR. Applicable SPRs will be implemented and require the following: an archaeological and historical resource records search was conducted (SPR CUL-1), identified built historic resources will be avoided through the implementation of a 100 foot buffer for mechanical treatment activities (SPR CUL-7) until a qualified archaeologist or CAL FIRE archeological trained Registered Professional Forester is contacted and determines the significance of the find, and all crew members and contractors will be trained on the protection of sensitive archaeological, historical, or tribal cultural resources and avoidance measures for encountered or discovered archaeological resources (SPR CUL-8). *No built historic resources were observed within proposed treatment areas during ground surveys. An Archaeological Survey Report (ASR) was developed for this project and sensitive resources will be protected pursuant to SPR CUL-5 and consultation with a CAL FIRE Associate State Archaeologist.*						
Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources	Impact CUL-2, 3.5	SU	SPR CUL-2, 3, 4, 5, 8 MM CUL- 2	Yes	SU	☒
Initial and maintenance treatments would include mechanical mastication and prescribed burning treatment activities that utilize heavy equipment and will result in ground disturbance. The potential for these treatment activities to result in inadvertent discovery of unique archaeological resources or subsurface historical resources was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 15-16). *The potential for there to be an inadvertent discovery of unique archaeological resources or subsurface historical resources is within the scope of the activities and impacts discussed in the PEIR because the treatment activities and the extent of ground disturbance of the*						

treatment project are consistent with those analyzed in the PEIR. The project proponent will implement SPR CUL-1 through CUL-5 and CUL-8 to minimize the risk of inadvertently damaging or discovering unknown resources during treatment activities. The applicable SPRs require the following: an archaeological and historical resource records search was conducted (SPR CUL-1), all geographically affiliated California Native American Tribes were notified of the treatment activities (SPR CUL-2), pre-field research was conducted (SPR CUL-3), a site-specific archaeological survey was conducted and survey reports were completed (SPR CUL-4), consultation with culturally affiliated tribes will occur if cultural resources are identified and cannot be avoided to develop protection measures for the resource(s) (SPR CUL-5), and all crew members and contractors will be trained on the protection of sensitive archaeological, historical, or tribal cultural resources and avoidance measures for encountered or discovered archaeological resources (SPR CUL-8).

Mitigation Measure CUL-2 will also be implemented to further minimize impacts on unknown unique archaeological or subsurface historical resources by ceasing all activities within 100 feet of the discovered resource(s) until a qualified archaeologist is contacted and determines the significance of the find.

Although the implementation of the protocol and avoidance measures, SPRs, and mitigation measures will reduce the risks of this impact, unknown resources could be inadvertently damaged. Therefore, this impact would remain significant and unavoidable, as stated in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 16).

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

Initial and maintenance treatments would include mechanical and pile and burning treatment activities that utilize heavy equipment and will result in ground disturbance. The potential for treatment activities to cause a substantial adverse change in the significance of tribal cultural resources was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 16-17).

The potential for adverse effects to tribal cultural resources during implementation of the treatment project is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and level of ground disturbance are consistent with those analyzed in the PEIR. The implementation of SPR CUL-1 through CUL-6 and CUL-8 would minimize the potential for impacting tribal cultural resources. The applicable SPRs require the following: an archaeological and historical resource records search was conducted (SPR CUL-1), all geographically affiliated California Native American Tribes were notified of the treatment activities (SPR CUL-2), pre-field research was conducted (SPR CUL-3), a site-specific archaeological survey was conducted and survey reports were completed (SPR CUL-4), consultation with culturally affiliated tribes will occur if cultural resources are identified and cannot be avoided to develop protection measures for the resource(s) (SPR CUL-5), consultation with geographically affiliated tribes will occur if cultural resources are identified in the treatment areas to develop protection measures for the resource(s) (SPR CUL-6), and all crew members and contractors will be trained on the protection of

sensitive archaeological, historical, or tribal cultural resources and avoidance measures for encountered or discovered archaeological resources (SPR CUL-8).

An information request letter and NAHC notification was sent out to geographically affiliated tribes on September 12th, 2022.

Based on the implementation of the applicable SPRs and the results from consulting with geographically affiliated tribes, it is likely that this project's potential to create an adverse change in the significance of tribal cultural resources is less than significant.

Impact CUL-4: Disturb Human Remains	Impact CUL-4, 3.5	LTS	N/A	Yes	LTS	☒

Initial and maintenance treatments would include mechanical treatments utilizing heavy equipment, which may result in ground disturbing activities. The potential for treatment activities to uncover human remains was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 17).

The potential for human remains to be uncovered during the implementation of the treatment project is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and the level of ground disturbance are consistent with those analyzed in the PEIR. As stated in the PEIR, this project would comply with the California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097, which indicate that if human remains are discovered, there shall be no further disturbance of the site and the human remains shall be left undisturbed. Furthermore, a CAL FIRE Archaeologist and the San Luis Obispo County Coroner's Office will be notified immediately. There are no SPRs or MMs for this impact.

Based on this project's compliance with the California Health and Safety Code Sections 7050.5 and 7052 in addition to PRC Section 5097, any impact to discovered human remains is expected to be less than significant.

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

The proposed treatment is consistent with the treatment types and activities considered in the PEIR. The project proponent has considered the site-specific characteristics of the treatment project and determined they are consistent with the environmental and regulatory setting conditions discussed in the PEIR (CalVTP Final PEIR, Volume II, 3.5.1 and 3.5.2). No changed circumstances would lead to new significant

impacts not addressed in the PEIR. Therefore, no new impact related to archaeological, historical, or tribal cultural resources would occur that is not addressed in the PEIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR CUL-1 Conduct Record Search: For treatments led by CAL FIRE, an archaeological and historical resource record search will be conducted per the "Archaeological Review Procedures for CAL FIRE Projects" (current edition dated 2010). This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior	CAL FIRE
An archaeological records check request for the project areas was sent to the Central Coast Information Center (CCIC) at UC Santa Barbara on August 26th, 2022 and fulfilled on September 6th, 2022.			
SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List, which may be obtained from the CAL FIRE website, as appropriate. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
CAL FIRE Associate State Archaeologist Denise Ruzicka was consulted during the planning phase of the proposed project and visited project sites in October of 2022 to provide support during in-field archaeological surveys. In addition, a notification letter was sent to geographically affiliated tribes on September 12th, 2022 (utilizing the July 1st, 2022, Native Americans Contact List) and a full Archaeological Survey Report (ASR) will be completed and submitted to the CCIC prior to project implementation. Comments and concerns received from geographically affiliated tribes will be addressed and included in the ASR.			

SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. This SPR applies to all treatment activities and treatment types	Yes	CAL FIRE Prior	CAL FIRE
Pre-field research has been completed as part of completing a full Archaeological Survey Report (ASR) to be submitted to CAL FIRE and the CCIC prior to treatment implementation.			
SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically trained resource professional or qualified archaeologist to conduct a site-specific survey of the treatment area. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Archaeological surveys of the project sites have been conducted as part of completing a full Archaeological Survey Report (ASR) to be submitted to CAL FIRE and the CCIC prior to treatment implementation. In addition, in-field archaeological surveys will be conducted throughout the duration of treatment operations.			
SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
The implementation of this SPR will minimize impacts to archaeological cultural resources discovered during operations.			
SPR CUL-6 Treatment of Tribal Cultural Resources: If a tribal cultural resource is identified within a treatment area, and cannot be avoided, the project proponent in consultation the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
The implementation of this SPR will minimize impacts to archaeological cultural resources discovered during operations.			
SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. This SPR applies to all treatment activities and treatment types.	No	CAL FIRE N/A	CAL FIRE
Neither the records search nor ground surveys identified any built historical resources within the project area. However, if a built historical resource is discovered during ongoing archaeological surveys throughout operations, operations will cease within proximity to the resource site and appropriate protection measures will be implemented.			

Built historic resources are present outside of but adjacent to the treatment areas at San Simeon Point in the form of infrastructure that makes up Old San Simeon Village (OSSV). Proper measures and diligence will be implemented to ensure project activities do not adversely affect built historic resources in proximity to the project site.			
SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
The implementation of this SPR will reduce the risk of operations resulting in an impact to sensitive archaeological, historical, or tribal cultural resources.			
MM CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified professional archaeologist or CAL FIRE archeological trained Registered Professional Forester will assess the significance of the find.	Yes	CAL FIRE During	CAL FIRE
This project proposes mechanical and manual treatments that may result in light ground disturbance. Implementation of this SPR will minimize potential impacts to subsurface resources that may be discovered during operations. Majority of the ground surface within treatment areas is capped with a 3-6" layer of organic material/duff on average. Impacts to subsurface archaeological resources is not expected.			

EC-5: BIOLOGICAL RESOURCES

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

			1, 3, 4, 5, 7 SPR HYD-5 MM BIO-1a, 1b, 1c			

Proposed initial and maintenance treatments involve the use of mechanized equipment, handwork, prescribed broadcast and/or pile burning, and may include limited, selective herbicide application which could result in direct or indirect adverse effects to special-status plant species due to the project areas containing potentially suitable habitat for some listed and non-listed species. The potential for adverse effects to special status plants is within the scope of the activities and impacts addressed in the PEIR because the activities and level of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.

Mechanical treatments, prescribed burning, and herbicide application may directly or indirectly impact special-status species; however, the removal of understory vegetation and invasive species will promote the regeneration of native species that support a healthier residual forest. SPRs applicable to this project include SPR BIO-1, BIO-2, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, and GEO-7.

No listed or non-listed special-status plants are known to exist within the property or project boundary except for Monterey pine (Pinus radiata) and Compact cobwebby thistle (Cirsium occidentale var. compactum).Monterey pine is a non-listed special-status tree species ranked as 1B.1 under the CNPS California Rare Plant Ranking system; Monterey Pine Forest possesses a State Rarity Rank of S1.1.Compact cobwebby thistle is a non-listed special-status perennial herb species ranked as 1B.2 under CNPS. Residual effects of treatments to non-listed special-status plant species will be less than significant after implementation of MM BIO-1b and applicable SPRs as the treatments will be designed to maintain and conditionally enhance the function of the special-status species plant habitat. If special-status species are found within the project area per the recommendation of a qualified RPF or biologist following a reconnaissance-level survey per the application of SPR BIO-1 (CalVTP Final PEIR Volume II Section 3.6, 119), Mitigation Measure BIO-1b will be implemented for prescribed burning, manual treatments, and mechanical treatments to avoid loss of special-status plants as described in the PEIR.

Initial and maintenance treatments will not result in the unavoidable loss of special-status plants. The treatments proposed for this project are focused on hazardous fuels reduction and ecological restoration of the Monterey pine forest, to promote a healthy and resilient residual stand.

Selective removal of special-status species will occur within the Coastal Zone Monterey pine Environmentally Sensitive Habitat Area (ESHA) of Monterey pine trees up to 8" DBH or trees over 8" DBH that are determined to be dead, dying, or diseased, hazardous to the public or infrastructure, or planned for removal to meet residual tree spacing and density standards. However, based on the ecological restoration treatments proposed for this project, applicable SPRs and Mitigation Measures, and the determination of qualified RPFs, it is expected that

any impacts to special-status plant species will be less than significant with mitigation and will likely improve overall habitat conditions for Monterey pine.						
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	Impact BIO-2, 3.6	LTS/PSU (all wildlife species except bumble bees) LTS (bumble bees) PSU	SPR BIO-1, 2, 3, 4, 5, 8, 10, 11 SPR HYD-1, 3, 4, 5 SPR HAZ-5, 6 MM BIO-2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 3b, 3c, 4	Yes	LTS	☒
Proposed initial and maintenance treatments involve the use of mechanized equipment, handwork, prescribed broadcast and/or burning, and may include limited/selective herbicide application which could result in direct or indirect adverse effects to special-status plant species due to the project areas containing potentially suitable habitat for some listed and non-listed species. The potential for adverse effects to special status wildlife is within the scope of the activities and impacts addressed in the PEIR because the activities and level of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Mechanical treatments and herbicide application will result in reduced understory vegetation that may modify preferred habitats for some species, however, it will promote a healthier, native residual forest habitat. SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-9, GEO-1, HAZ-5, HAZ-6, HYD-1, HYD-4, and HYD-5 will be implemented to minimize impacts, however, the mitigation measures listed below would need to be implemented to reduce impact significance. *Implementing the proposed treatments for this project will create a mosaic of diverse wildlife habitat including, but not limited to, additional edge habitat between dense and sparsely vegetated areas, habitat corridors through increased spacing of residual trees, and the recruitment of new wildlife species that occupy treated landscapes (Kennedy & Fontaine, 2009).* *The applicable SPRs require the following: biological resources will be reviewed and surveyed (SPR BIO-1), crew members and contractors will be trained on applicable biological resources (SPR BIO-2), if sensitive natural communities or habitats cannot be avoided, then a protocol-level survey will be conducted to identify and map the limits of the potentially sensitive area (SPR BIO-3), treatments will be designed to avoid loss or degradation of riparian habitat function including retaining a minimum of 75% overstory and 50% understory canopy (SPR BIO-4), implement mitigations to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (SPR BIO-9), suspend mechanical and herbicide treatments during heavy precipitation (SPR GEO-1), develop a Spill Prevention and Response Plan (SPR HAZ-5), obtain all required licensing and permitting for herbicide application through the San Luis Obispo County Agricultural Commissioner's office (SPR HAZ-6), comply*						

with water quality regulations including vegetation and land disturbance related Waste Discharge Requirements (SPR HYD-1), identify and protect WLPZ's (SPR HYD-4), and protect non-target vegetation and special-status species from herbicides (SPR HYD-5).

A CNDDB BIOS query resulted in 21 special-status wildlife species within a 9-quadrangle vicinity surrounding the project property. Of the 21 special-status wildlife species identified, 1 species is known to occur or have a record of occurring within the project area or project property – monarch butterfly.

Mitigation Measures BIO-2a, BIO-2b, BIO-2c, BIO-2g, BIO-3a, BIO-3b, and BIO-3c will be applied based on the life history groupings to minimize residual impacts after the application of the SPRs. An analysis of the potential impact on each special-status wildlife species that may occur within 5 miles of the project property boundaries has been completed and can be found in Attachment C.

Field reconnaissance and comprehensive biological surveys will have been conducted within the project area prior to operations to determine occupancy and identify additional potential impacts to special-status wildlife species by biologist Kevin Cooper of Resolute Associates LLC. Findings of these surveys determined no substantial impacts to special-status species are expected for this project and appropriate mitigation and protection measures will be implemented in the event a special-status species is observed prior to or during treatments. A report that concurs with the findings of biological resources likely to occur within the project areas can be found in Attachment E.

Based on the survey protocols and pre-operational meetings, the proximity of special-status wildlife species to treatment areas, and the implementation of the SPRs and Mitigation Measures it is likely that this project will result in a less than significant impact on all wildlife species, except for bumble bees, whose impact would remain potentially significant and unavoidable due to the difficulty in detecting overwintering and nesting bumble bees as addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, page 171). Additional information is available in Attachment A providing Project-Specific Requirements and Mitigation Measures for special-status bumble bees.

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

Initial and maintenance treatments include mechanical and manual treatments, which could result in direct or indirect adverse effects to sensitive habitats. The potential for treatment activities to result in adverse effects to sensitive habitats was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, 187-192). The potential for adverse effects to sensitive habitats is within the scope of the activities and

impacts addressed in the PEIR because the treatment activities and level of disturbance as a result of the treatment activities are consistent with those analyzed in the PEIR. The SPRs that apply to this impact are SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-8, BIO-9, and HYD-4.

Table 3.6-3 in the PEIR (Volume II) for the Central California Coast ecoregion was reviewed and it was determined that the Closed-Cone Pine-Cypress, Coastal Scrub, and Annual Grassland California Wildlife Habitat Relationship (CWHR) classifications may be present within or in proximity to the treatment areas. Treatments at Pico Creek are proposed within the Monterey pine forest, a sensitive natural community and habitat. Due to the Monterey pine forest community being considered a sensitive natural community under the PEIR, SPR BIO-3 will be implemented and requires site-specific surveys and mapping sensitive natural communities within these habitat types.

No direct or specific treatments are proposed within coastal scrub habitat or perennial grasslands but these areas may be involved in treatment activities as a product of treatments in vegetation types surrounding mapped coastal scrub and perennial grasslands (i.e., prescribed burning).

Based on the treatment prescription, determination of qualified RPFs for treatments in Monterey pine forests to occur, survey protocol and pre-operational meetings, and the implementation of the applicable SPRs and mitigation measures, it is likely that any impact to riparian habitat or other sensitive natural communities would be less than significant.

Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	Impact BIO-4, 3.6	LTS	SPR BIO-1 SPR HYD-1, 3, 4, MM BIO- 4	No	N/A	☒
There are no State or Federally Protected Wetlands in the project area.						
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	Impact BIO-5, 3.6	LTS	SPR BIO-1, 4, 5, 10, 11 SPR HYD-1, 4 MM BIO- 5	Yes	LTS	☒
Project treatment (prescribed broadcast and pile burning, manual treatment, mechanical treatment) could result in direct or indirect adverse effects to wildlife movement corridors and nurseries because suitable habitat is present in the project area. The potential for treatment activities to result in adverse effects to wildlife movement corridors and nurseries was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, page 193-197). *The potential for adverse effects to wildlife movement corridors and nurseries is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and extent of expected disturbance as a result of implementing treatment activities are consistent*						

with those analyzed in the PEIR. Implementing the proposed treatments for this project will create a mosaic of diverse wildlife habitat including, but not limited to, additional edge habitat between dense and sparsely vegetated areas, habitat corridors through increased spacing of residual trees, and the recruitment of new wildlife species that occupy treated landscapes (Kennedy & Fontaine, 2009). The project treatment site does not contain any portion of a modeled essential connectivity area or natural landscape block (CDFW, 2018).

The proposed treatment areas may contain essential connectivity areas for some ungulate species and mountain lions as well as habitat for breeding sites or cover. This project proposes the use of mechanical treatment outside of sensitive riparian corridors and will comply with overstory cover requirements in riparian areas (SPR BIO-4). Mitigation Measure BIO-5 will be implemented to retain and avoid nursery habitat through the establishment of buffers where necessary. Based on the implementation of SPRs and MMs, it is likely that any impact to wildlife movement corridors and nurseries would be less than significant.

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

Project treatment (prescribed broadcast and pile burning, manual treatment, mechanical treatment) could result in direct or indirect adverse effects resulting in reduction of habitat or abundance of common wildlife, including nesting birds, because suitable habitat is or may be present in the project area. The potential for adverse effects to common wildlife, including nesting birds, is within the scope of the activities and impacts addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, 197-199) because the treatment activities and extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR.

The implementation of these survey protocols and the retention and planned improvement of suitable habitat for common wildlife will prevent a substantial reduction of any common species, therefore any impact to the abundance of common wildlife would be less than significant.

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

The potential for treatment activities to result in conflict with local policies or ordinances was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, 199). Vegetation treatment projects implemented under the CalVTP that are subject to local policies or ordinances would be required to comply with any applicable county, city, or other local policies, ordinances, and permitting procedures related to protection of biological resources, per SPR AD-3.

Initial and maintenance treatments would include the allowable removal of dead, dying, and diseased trees and live trees less than 8 inches diameter at four feet above grade pursuant to standards defined in Title 23 of the San Luis Obispo County Code, Coastal Zone Land Use

Ordinance (Chapter 5, Sections 60-64). The CalVTP Standard Project Requirements and Mitigation Measures address environmental concerns that could occur due to mechanized removal of vegetation for forest health and climate resiliency. *The San Luis Obispo County Department of Planning and Building has been consulted by US-LT RCD and the proposed project does not conflict with any local policies or ordinances protecting biological resources; therefore, this impact does not apply.*						
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	Impact BIO-8, 3.6	No Impact	N/A	No	N/A	☒
Implementation of the proposed vegetation treatment and treatment maintenance would not result in conflict with adopted habitat conservation plans (HCP) or natural community conservation plans (NCCP), because the treatment site is not within the plan area of any adopted HCP or NCCP.						
Other Impacts to Biological Resources: Would the project result in other impacts to biological resources that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed project treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.6.1 and 3.6.2). No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to biological resources would occur that is not covered in the PEIR.						

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR BIO-1: Review and Survey Project-Specific Biological Resources.	Yes	CAL FIRE Prior-During	CAL FIRE
1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided.**	Yes		

2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided**. This SPR applies to all treatment activities and treatment types.	No		
A CNDDB search was conducted in December of 2022. The project area spans two 7.5' USGS quadrangles (Portions of Sections 26, 27, 34, & 35, T26S, R07E, and Portions of Sections 31 & 32, T26S, R08E, MDBM, USGS San Simeon Quadrangle -AND- Portions of Sections 5 & 6, T27S, R08E, MDBM, USGS Pico Creek Quadrangle). Review of Appendix BIO-3, Table 1a and Table 1b, in the PEIR (CalVTP Final PEIR Volume II) for special-status plants and wildlife that could occur in the Central California Coast ecoregion 261A was reviewed. Complete lists of species with potential to occur in the treatment site are included in Attachment C. *Per SPR BIO-1, a data review of project-specific biological resources and reconnaissance survey of the project area were conducted. The CalVTP Final PEIR Appendix BIO-3 Tables 1a and 1b were used to identify species known or with potential to occur within the Central California Coast ecoregion and their associated California Wildlife Habitat Relationship (CWHR) types that may be present within or in proximity to treatment areas. The CNDDB BIOS 5 and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database were used to identify the state and federally listed species that may be present within a five-mile vicinity surrounding the Hearst Ranch project boundaries. The search yielded 56 federal and state threatened, endangered, or candidate species, CDFW species of special concern and candidate species, and the CNPS's California Rare Plant Rank (CRPR) List 1 and 2. The species reviewed are listed and impacts to each species are analyzed within the "Biological Resources Species List" (Attachment C).* *Based on this query and local knowledge of the area, biological scoping was conducted for species with habitat potential across the project sites. Although the biological scoping indicates numerous special-status species have potentially suitable habitat within project treatment areas and special-status species have been observed, analysis of project impacts concluded no species would be adversely affected. Table B in Attachment C summarizes the scoping and subsequent impact analysis for each species from the five-mile query.*			
SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
The implementation of this SPR will minimize the risk of an impact occurring to biological resources during operations.			
SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
SPR BIO-1 determined that the project area contains sensitive natural communities, the Monterey pine Forest Alliance at Pico Creek and Coastal Cypress Woodland at San Simeon Point; however, the treatments proposed will promote the health and resiliency of the residual stand. In treatment areas where multiple age classes are represented, the proposed treatment will promote heterogeneity, resiliency, and			

habitat health in the residual stand by creating different influences of sunlight through the canopy to the forest floor adding to a complex mosaic of diversity in the understory. Refer to Impact BIO-3 for more information.			
SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
No mechanical equipment will be utilized within the zones established for the protection of watercourses except where equipment crossing zones are established on Class III streams. CDFW has made the following recommendations on previous projects: *All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No equipment is allowed within wetland, riparian or stream channel habitats.* *Proper best management practices (BMP's) shall be used to minimize erosion. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats.* *Treatments within the Equipment Exclusion Zone (EEZ) of Class III watercourses capable of sediment transport will be completed by hand methods where treatment is proposed. Dead and down debris may be removed from the Class III zone and piled and burned outside of the EEZ when feasible. Some debris may be lopped and scattered in the EEZ. Vegetation treatments will focus on areas where there are uncharacteristic fuel loads adjacent to the dominate and codominant trees. No Class II or Class I watercourses are present within the treatment area.*			
SPR BIO-5: Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub. The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. These SPR requirements apply to all treatment activities and all treatment types. Additional measures will be applied to ecological restoration treatment types	Yes	CAL FIRE Prior-During	CAL FIRE
See Maps 3 and 4 in Attachment B for Coastal Sage Scrub locations within the project boundary. No direct or specific treatments are proposed within coastal scrub habitat or perennial grasslands but these areas may be involved in treatment activities as a product of treatments in vegetation types surrounding mapped coastal scrub and perennial grasslands (i.e., prescribed burning). Treatments will be designed to avoid type conversion where native coastal sage scrub is present.			
SPR BIO-6: Prevent Spread of Plant Pathogens. When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement best management practices to prevent the	Yes	CAL FIRE Prior-During	CAL FIRE

spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle). This SPR applies to all treatment activities and treatment types.			
Pre-field research, field reconnaissance, and local knowledge of the project area has determined the presence of forest pathogens and disease within the Monterey pine forest at Pico Creek, particularly western dwarf mistletoe, western gall rust, and pitch canker. This project proposes that chipped material infected with plant pathogens and/or disease only be chipped and spread back into areas already impacted by the pathogen to prevent the transfer of diseases into non-infested zones. For more information, see Pest and Disease section under Item #8.			
SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." This SPR applies to all treatment activities and treatment types.	No	CAL FIRE N/A	CAL FIRE
Per SPR BIO-1, it has been determined that potentially suitable habitat may be present for some special-status plant species (see Attachment C); however, the habitat for these species can be avoided; therefore, this SPR does not apply.			
SPR BIO-8: Identify and Minimize Impacts in Coastal Zone ESHAs. This SPR applies to all treatment activities and only the ecosystem restoration treatment type.	Yes	CAL FIRE Prior-During	CAL FIRE
Due to this project occurring within the coastal zone, consultation with the California Coastal Commission (CCC) is necessary throughout the development and implementation of the proposed treatments. Efforts between the CCC and Upper Salinas-Las Tablas Resource Conservation District developed a Public Works Plan (PWP) document that establishes a set of standards for CalVTP projects occurring within the coastal zone within US-LT RCDs jurisdictional boundary in San Luis Obispo County that allows further treatments than presented in SPR BIO-8. A Coastal Vegetation Treatment Standards document has been prepared for this project and is included in Attachment D. The entirety of the Monterey pine forest at Pico Creek is considered ESHA, as defined by the CCC. The basis of this project is to conduct ecologically restorative treatments that promote the persistence and resiliency of the Monterey pine forest type as an environmentally sensitive habitat area through a myriad of protection, conservation, and avoidance measures. *Based on the treatment prescription, determination of qualified RPFs for treatments in Monterey pine forests to occur, survey protocol and pre-operational meetings, and the implementation of the applicable SPRs and Mitigation Measures, it is likely that any impacts in Coastal Zone ESHAs would be minimized.*			
SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE

Given the potential for invasive plants, noxious weeds, and invasive wildlife to occur in the project area, this SPR applies. More information can be found in the Initial Treatment Description section under Item #8, Treatment Activities, "Herbicides" and under "Invasive Species" in the same section.			
SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron, or egret rookeries) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Surveys will be required prior to treatment activities in potentially suitable habitat for special-status wildlife species listed and described in Attachment C, unless it is assumed that a special-status wildlife species will occur within the project area and feasible mitigation is implemented based on that assumption. Project-Specific Requirements for special-status wildlife can be found in Attachment A and will be implemented in addition to existing Mitigation Measures and SPRs for this project.			
SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). This SPR applies only to prescribed herbivory and all treatment types.	No	CAL FIRE N/A	CAL FIRE
This project does not include prescribed herbivory at this time, therefore, this SPR does not apply. If considered in the future, SPR-BIO-11 shall be considered and implemented where applicable.			
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 or peak nesting season will be defined by the qualified RPF or biologist. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
See entire SPR in PEIR (CalVTP Final PEIR, Volume II, Section 2.7.5, 45-46) for complete avoidance strategies identified in PEIR (Establish Buffer, Modify Treatment, Defer Treatment, Monitor Active Raptor Nest During Treatment, Retention of Raptor Nest Trees). *Mitigation Measure MM BIO-2b of the EIR includes the same protection measures necessary for the protection of nesting birds. More information regarding protection measures of common nesting birds, including raptors, can be found in Attachment A.*			

Per Attachment A Mitigation Measure MM BIO-5, Project-Specific Requirements - Cormorant Rookery Site – San Simeon Point, special protection measures will be implemented for the identified double-crested cormorant rookery including establishing a no activity buffer of 200 feet during the nesting season and no treatment activities within 100 feet of the rookery during the non-nesting season, except to relocate dead downed vegetation outside of the buffer for further disposal. *Any unforeseen impacts to common nesting birds, including raptors, are expected to be less than significant.*			
MM BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).	Yes	CAL FIRE Prior-During	CAL FIRE
A CNDDB RareFind 5 search of the project area did not determine the occurrence of any special-status listed plant species within the project boundaries. Comprehensive biological surveys will be conducted prior to any treatments across all subunits. Following a biological survey, per SPR BIO-1 and in the event a special-status listed species is found within the proposed project, MM BIO-1a will be implemented to avoid loss of and protect that species.			
MM BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status as stated in Section 3.6.1 of the Program EIR) are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will implement measures to avoid loss of individuals and maintain habitat function of occupied habitat.	Yes	CAL FIRE Prior-During	CAL FIRE
A CNDDB RareFind 5 search of the project area determined the occurrence of five special-status non-listed species within the property or project boundaries. Comprehensive biological surveys will be conducted prior to any treatments across all subunits. Following a biological survey, per SPR BIO-1 and in the event a special-status non-listed species is found within the proposed project, MM BIO-1b will be implemented to avoid loss of and protect that species. Compact cobwebby thistle (Cirsium occidentale var. compactum) was identified during a biological survey on San Simeon Point. The plant population will be flagged and avoided by project activities. See Attachment C for a list of all potential special status plant species that may occur onsite.			

MM BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. If the special-status plant taxa are listed under ESA or CESA, the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.	No	CAL FIRE N/A	CAL FIRE
Initial and maintenance treatments will not result in the unavoidable loss of special-status plants. The treatments proposed for this project are focused on hazardous fuels reduction, habitat enhancement, and ecological restoration of the Monterey Pine Forest, a sensitive natural community with a State Rarity Rank of S1.1, at Pico Creek to promote a healthy and resilient residual stand. Long-term results of the proposed treatments are expected to reflect historic ecological conditions. Adequate spacing and vigor of the residual stand will help to mitigate deadly forest pathogens and create a mosaic of diverse plant habitats. *Based on the available findings and site-specific conditions, it is likely that some special-status plant species other than the Monterey pine may benefit from understory treatment activities (Dyrness, 1973). The opening of light gaps as a product of treatment and subsequent development of favorable seed bed conditions for germination are factors expected to promote the regeneration of special-status plant species. Treatments being proposed for this project are designed to mimic natural disturbance and stimulate the regeneration of Monterey pine alliances and potentially other sensitive species.* *Due to the scope of treatments and the objectives of this project, Mitigation Measure BIO-1c does not apply.*			
MM BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities)	Yes	CAL FIRE During	CAL FIRE
A CNDDB search was conducted within the nine USGS quadrangles surrounding the project area. Of the 21 special-status wildlife species determined to have occurred in these vicinities, some of the species are listed under the California Endangered Species Act (CESA) or the federal Endangered Species Act (ESA) (See Attachment C). No CDFW designated Fully Protected Species are known to occur in the project area or surrounding vicinity. *If listed wildlife species or California fully protected species are observed prior to or during implementation of treatments, Mitigation Measure BIO-2a will be considered and implemented where appropriate. Additional information is available in Attachment A providing Project-Specific Requirements and Mitigation Measures for special-status wildlife species.*			

Based on the CNDDB findings, site-specific review, biological surveys, and the determination of qualified RPFs, any potential impact during initial and maintenance treatments that could cause mortality, injury, loss of habitat function, or disturbance to any special-status listed wildlife species would be less than significant and would most likely benefit from the proposed treatments.			
MM BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required.	Yes	CAL FIRE During	CAL FIRE
A CNDDB search was conducted for the 9 USGS quadrangles surrounding the project area. Of the 21 special-status wildlife species determined to have occurred in these vicinities, some of the species are not listed under the California Endangered Species Act (CESA) or the federal Endangered Species Act (ESA) (See Attachment C). No CDFW designated Fully Protected Species are known to occur in the project area or surrounding vicinity. *If non-listed special status wildlife species or California fully protected species are observed prior to or during implementation of treatments, Mitigation Measure BIO-2b will be considered and implemented where appropriate.* *Based on the CNDDB findings, site-specific review, biological surveys, and the determination of qualified RPFs, any potential impact during initial and maintenance treatments that could cause mortality, injury, loss of habitat function, or disturbance to any special-status listed wildlife species would be less than significant and wildlife would most likely benefit from the proposed treatments.*			
MM BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities) If the provisions of Mitigation Measure BIO-2a, BIO-2b, BIO-2d, BIO-2e, BIO-2f, or BIO-2g cannot be implemented and the project proponent determines that additional mitigation is necessary to reduce significant impacts, the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit), if these requirements are equally or more effective than the mitigation identified above.	No	CAL FIRE N/A	CAL FIRE

Based on the CNDDB findings, site-specific review, biological surveys, and the determination of qualified RPFs, it is unlikely that initial and maintenance treatments will cause mortality, injury, loss of habitat function, or disturbance to any special-status wildlife species that would necessitate compensatory mitigation and special-status wildlife would benefit from the proposed treatments; therefore, this Mitigation Measure does not apply.			
MM BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)	No	CAL FIRE N/A	CAL FIRE
Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus) is not known to exist or expected to exist within the project area.			
MM BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities) The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required.	Yes	CAL FIRE Prior-During	CAL FIRE
Measures listed in Attachment A will be implemented to avoid impacts to and maintain habitat for monarch butterfly. The Xerces Society for Invertebrate Conservation (Xerces Society) was consulted to provide technical assistance for this project; see Attachment F for more detailed information and guidance recommendations report. Xerces Society will be included in ongoing treatment design in monarch habitat to ensure maintenance of existing habitat function and retention of existing nectar sources. *Xerces Society recommends the following nectar plants be prioritized for retention within the project area if present. Botanical surveys conducted prior to treatments will survey for these species and flag them appropriately for retention:* - *Wax myrtle (Morella californica)* - *Toyon (Heteromeles arbutifolia)* - *Coffee Berry (Frangula californica)* - *Seaside Fleabane (Erigeron glaucus)* - *Coyote Bush (Baccharis pilularis)* - *Sage spp. such as Black or Hummingbird sage* - *Mule fat (Baccharis salicifolia)* - *Local Manzanita spp.* - *Ericameria spp such as Rabbitbrush, Goldenbush, & Mock Heather*			

MM BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities)	No	CAL FIRE N/A	CAL FIRE
Reconnaissance-level field surveys determined no suitable habitat for special-status beetles, flies, grasshoppers, or snails exists within the project areas, and a CNDDB search of the 9 quadrangles surrounding the project area did not produce evidence that any of these species have been recorded or are known to occur within the proximity of the proposed treatment sites; therefore, this mitigation does not apply.			
MM BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities) The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or disturbed during treatment activities. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.	Yes	CAL FIRE Prior-During	CAL FIRE
This MM will apply to this project. See Attachments A and C for more information regarding the avoidance, protections, and occurrences of special-status bumble bees for this CalVTP project. Measures listed in Attachment A will be implemented to avoid or minimize impacts to and maintain habitat function (e.g., floral resources) for special-status bumble bees.			
MM BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory)	No	CAL FIRE N/A	CAL FIRE
This project does not include prescribed herbivory at this time, therefore, this SPR does not apply.			
MM BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3: The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.	No	CAL FIRE N/A	CAL FIRE
The project area contains Monterey pine forests, coastal cypress woodlands, coastal scrub, and coastal oak woodlands – all of which are considered sensitive natural communities. However, this project falls under the exception for this Mitigation Measure because it has been determined by qualified RPFs that sensitive natural communities would benefit from treatments in the occupied habitat. See more information in Attachments A and C.			

MM BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands. If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects.	No	CAL FIRE N/A	CAL FIRE
This Mitigation Measure does not apply because significant impacts to Sensitive Natural Communities of Monterey Pine Forest, Coastal Cypress Woodland, Coastal Scrub, and Oak Woodland can be avoided by implementing MM BIO-3a. See Attachments A and C for more information. *Prescribed broadcast and pile burning will be implemented in areas previously treated by way of mechanical or manual treatment methods to reduce or dispose of residual vegetative matter and stimulate the regeneration of Monterey pine at Pico Creek, which is expected to mitigate the spread of deadly forest pathogens, create more vigorous and diverse mosaics of wildlife habitat, and restore the structural integrity of the forest for public safety and fire resiliency. Other Sensitive Natural Communities within the project area are expected to benefit from treatment by implementing MM BIO-3a.* *The natural fire regime is not expected to be immediately restored by the proposed treatments, but characteristics of fire, predominantly regenerative action following vegetation treatments and ladder fuel alteration, will be conducted through mastication of understory vegetation, live trees up to 8 inches DBH, and dead, dying, and diseased trees to create a mosaic of treated areas that will promote the health and resiliency of the residual stand. In treatment areas where multiple age classes are represented, the proposed treatment will promote heterogeneity, resiliency, and health in the residual stand by creating different influences of sunlight through the canopy to the forest floor adding to a mosaic of diversity in the understory.*			
MM BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.	No	CAL FIRE N/A	CAL FIRE
This project proposes the use of mechanical treatment outside of Class III Equipment Exclusion Zones and will comply with overstory cover requirements in riparian areas. No Class I or Class II streams occur in the project area.			
MM BIO-4: Avoid State and Federally Protected Wetlands	No	CAL FIRE N/A	CAL FIRE
The project area does not contain state and federally protected wetlands; therefore, this Mitigation Measure does not apply.			

MM BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites	Yes	CAL FIRE Prior-During	CAL FIRE
If wildlife nursery habitat is identified during SPR BIO-10 surveys, treatment activities could result in disturbance of nursery behavior causing loss of young or result in direct removal of nursery habitat and this mitigation measure will apply. A qualified RPF or biologist will establish buffers around active deer fawning sites during the fawning season of the appropriate size prior to implementation of treatment activities. The appropriate size and shape of the buffer will be based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors.			

Refer to *Attachments A* and *E* for more information on project-specific guidelines and survey procedures for biological resources.

SPECIES STATUS SUMMARY TABLE
Results of Listed Species Found in the CNDDB Query

WILDLIFE	LISTING STATUS			HABITAT
COMMON NAME **SCIENTIFIC NAME**	**FED**	**CA**	**OTHER**	
tricolored blackbird *Agelaius tricolor*	N	TH	SSC	Tricolored blackbirds are found in areas near water, such as marshes, grasslands, and wetlands. They require some sort of substrate nearby to build nests. This substrate is often in the form of aquatic vegetation. They also need foraging areas, which can consist of grassland or agricultural pastures such as rice, grain, or alfalfa.
grasshopper sparrow *Ammodramus savannarum*	N	N	SSC	Grasshopper sparrows utilize prairie and cultivated grasslands, weedy fallow fields, and alfalfa fields. They avoid significant shrub cover unless for concealment. They occupy intermediate grassland habitat, preferring drier, sparse to moderately dense sites in tallgrass prairies, with open or bare ground for feeding.
Northern California legless lizard *Anniella pulchra*	N	N	SSC	Sandy or loose loamy soils under sparse vegetation in chaparral and coastal scrub. Soil moisture is essential. They prefer soils with a high moisture content.
pallid bat *Antrozous pallidus*	N	N	SSC	This species favors rocky outcrops in semi-arid climates within grasslands, chaparral, oak woodlands, and coniferous forests. The pallid bat diet consists of ground-dwelling prey like small mammals or reptiles and large flying or ground-dwelling insects.
obscure bumblebee *Bombus caliginosus*	N	N	SSC	Pollinator species found in grassland and herbaceous environments along the Pacific Coast from British Columbia to Central California. Primarily associated with relatively humid climates and coastal areas within the fog belt.
western snowy plover	TH	N	SSC	

Charadrius nivosus nivosus	This species favors coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, and estuaries at the mouths of rivers or creeks. The western snowy plover breeds above high tide lines and nests are generally located on flat, open areas where females will lay approximately 2-6 eggs.			
northern harrier *Circus hudsonius*	N	N	SSC	
	Northern Harriers breed in wide-open habitats ranging from Arctic tundra to prairie grasslands to fields and marshes. Their nests are concealed on the ground in grasses or wetland vegetation. In migration and winter, harriers typically move south away from areas that receive heavy snow cover, ending up in open habitats similar to those in which they breed.			
Townsend's big-eared bat *Corynorhinus townsendii*	N	N	SSC	
	This species favors dense coniferous forests, native prairies, and coastal communities usually below 3,300 meters elevation. This bat prefers dark, open caves or cliffs in cold areas for roosting and does not roost in rock crevices. The primary food source for this species is moths, however, beetles and other small insects are also common.			
black swift *Cypseloides niger*	N	N	SSC	
	Cypseloides niger nests on cliff ledges and behind waterfalls in areas inaccessible to predators. Forages over forests and open areas.			
monarch – California overwintering population *Danaus plexippus pop. 1*	C	N	SSC	
	The western overwintering population of monarch butterflies migrates to the coast of California, from Mendocino County to Baja California, to hibernate in clusters during the fall and winter months. Monarchs utilize temperate tree groves along the coast to protect themselves from winter storms. A common tree species used by monarchs for hibernation non-native blue gum eucalyptus (*Eucalyptus globulus*); however, evidence suggests the west coast population prefers native groves of Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), and/or coast redwood (*Sequoia sempervirens*) over the non-native eucalyptus groves. During the spring months, the monarch butterfly utilizes open fields and meadows containing milkweed as feeding habitat. Development, forest pathogens, disease, and climate change have led to significant habitat loss and population declines in recent years.			
western pond turtle	N	N	SSC	

Emys marmorata	The habitat for this species consists of aquatic and terrestrial environments, including lakes rivers, streams, ponds, wetlands, vernal pools, creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Adults favor deep waters while juveniles favor shallow waters, however, both prefer slow moving water. Terrestrial habitats consist of burrows in leaves or soil during the winter season. Nests are built away from water in flat areas with short vegetation and dry soils.			
tidewater goby *Eucyclogobius newberryi*	E	N	--	
	It is found primarily in coastal lagoons and the uppermost brackish water zones of larger estuaries, rarely entering marine or freshwater habitats. The species habitat ranges along the west coast of California from Tillas Slough (mouth of the Smith River, Del Norte County) near the Oregon border south to Agua Hedionda Lagoon (northern San Diego County).			
Smith's blue butterfly *Euphilotes enoptes smithi*	E	N	--	
	The habitat consists of coastal dune, prairie, and scrub along Central California. During its whole lifespan, the Smith's blue butterfly uses only two host buckwheat: Eriogonum latifolium and Eriogonum parvifolium. After emerging while the buckwheat flowers bloom, adult butterflies' mate and deposit eggs on the flowers of these host plants within their 1-week lifespan. Hatching transpires soon afterward, and the larvae begin to feed on the flowers of the very same host plant.			
tufted puffin *Fratercula cirrhata*	N	N	SSC	
	Ocean, nesting colonially in burrows on sea cliffs. Ranges widely at sea, from fairly near shore to far out of sight of land. Even during breeding season, may be at sea far from nesting colonies. Nests on islands, primarily on grassy steep slopes or cliff tops (steep dropoff may help birds take flight). Throughout range, prefers treeless islands.			
steelhead – south-central California coast DPS *Oncorhynchus mykiss irideus pop. 9*	T	N	--	
	This is an anadromous fish species that occurs in freshwater Pacific coast streams. This steelhead species will migrate to marine waters once it nears maturity, then returns to freshwater streams for spawning. Typically, this species requires a minimal of approximately 7 inches of water depth for migration and favors spawning habitat between 6 and 24 inches deep, usually in slow moving currents. High water velocities and low water depth can impede on this species' capability to migrate.			
foothill yellow-legged frog	N	N	--	

Rana boylii	Habitat is primarily foothill and mountain streams with rocky substrate in open, sunny banks within forests, chaparral, or woodland communities.			
California red-legged frog *Rana draytonii*	T	N	SSC	
	Common habitat consists of locations near ponds or along streams in humid forests, grasslands, and coastal scrub communities that contain plant cover. This species breeds in permanent water sources and requires moist refuges, like animal burrows, for cover in the dry season.			
Coast Range newt *Taricha torosa ssp. torosa*	N	N	SSC	
	A recognized subspecies of the California newt, the Coast Range newt migrates to ponds from late- to mid-year. In Central California, they are found in mountainous or rolling woodland and grassland environments. Breeding is aquatic and takes place primarily in ponds, reservoirs, and streams.			
two-striped gartersnake *Thamnophis hammondii*	N	N	SSC	
	This highly aquatic species forages primarily in and along streams for fish eggs or amphibian larvae. Primarily associated with permanent or semi-permanent bodies of water bordered by dense vegetation. Frequents holes, burrows, crevices, and surface objects nocturnally. During the day, the two-striped gartersnake can be found basking on streamside rocks or vegetated banks.			

The above table refers to all special-status species returned by CNDDB within a 9-quad vicinity of the project area. Refer to Attachment E for guidance on the project-specific review and survey procedures for biological resources.

Species Status Identifiers Used on the Table

DL– Delisted **E** – Endangered **CE** – Candidate Endangered **CTH** – Candidate Threatened **TH**– Threatened **PTH** – Potential Threatened

N – None **NL** – Not Listed **R** – Rare **WL** – Watch List **SSC** – DFG Species of Special Concern

PLANTS	STATUS		HABITAT	
COMMON NAME SCIENTIFIC NAME	**FED**	**STATE**	**CNPS LIST**	
bristlecone fir *Abies bracteata*	N	N	1B.3	Discontinuous stands of one to hundreds of trees, generally comprising < 5 ha, in less fire prone areas such as steep, west-, north-, or east-facing slopes in canyons or ravines, often in moist microsites near the bottom or at the head of drainages, often in talus or scree; above 1400 m on all exposures on rocky ridgetops, bluffs, or cliffs; and occasionally on stream benches or terraces. Generally in rocky, clayey, or loamy soil, occasionally on sandstone and serpentine.
Hickman's onion *Allium hickmanii*	N	N	1B.2	Coastal prairie or grassy openings in Monterey pine (Pinus radiata) forest or the edges of vernal pools, usually on damp clay-loam soils (but not heavy adobe), underlain by sandstone or shale.
Arroyo de la Cruz manzanita *Arctostaphylos cruzensis*	N	N	1B.2	Prefers sandy soils in broadleafed upland forests, closed-cone coniferous forests, coastal scrub, and grasslands. Local to the coastal bluffs and terraces of San Luis Obispo and Monterey Counties.
Hearsts' manzanita *Arctostaphylos hookeri ssp. hearstiorum*	N	E	1B.2	This shrub is endemic to California where its native range extends from the coastal San Francisco Bay Area to the Central Coast, really only known to occur within the proximity of San Simeon. Can tolerate a little clay but does best in heavy loam or sandy loam that is slightly acidic. Dry coastal slopes, bluffs and dunes, northern coastal scrub, and sandy openings in coastal pine woodlands from the bay area to San Luis Obispo County.
dwarf goldenstar *Bloomeria humilis*	N	R	1B.2	Found on the edges of grassy places. It is endemic to San Luis Obispo County, California, where it is known from only one occurrence on the coastline near San Simeon. It is a plant of the local chaparral and coastal grassland.
late-flowered mariposa-lily *Calochortus fimbriatus*	N	N	1B.3	Native to the coastal mountain ranges of southern Monterey, San Luis Obispo, Santa Barbara and northern Ventura counties, where it is a member of the chaparral flora. Dry places with heavy or rocky soil.

San Luis mariposa-lily *Calochortus obispoensis*	N	N	1B.2	Found in coastal sage scrub, chaparral, valley grassland. Endemic to San Luis Obispo County. Primarily associated with dry, serpentine soils in open chaparral where it flowers May–June.
Hardham's evening-primrose *Camissoniopsis hardhamiae*	N	N	1B.2	This evening primrose grows in the chaparral and foothill woodland communities of San Luis Obispo and Monterey Counties. Typically found between 1020-2060' elevation in sandy, limestone, or disturbed oak woodland soils.
San Luis Obispo sedge *Carex obispoensis*	N	N	1B.2	San Luis Obispo sedge occurs in a variety of habitats and is often associated with clay soils near serpentine seeps, sometimes gabbro. May occur in closed-cone coniferous forests, chaparral, coastal prairie, coastal scrub, and grassland habitats.
Heckard's owl's-clover *Castilleja ambigua var. heckardii*	N	N	1B.1	A species of Indian paintbrush native to western North America from British Columbia to California, where it is most common along the coast in salt marshes and scrub. It occurs in shallow depressions that may be vernally moist in sandy soils on coastal bluffs and ridge tops in dryish coastal terrace grasslands with a mix of native species and invasive grasses.
San Luis Obispo owl's-clover *Castilleja densiflora var. obispoensis*	N	N	1B.2	This species is endemic to San Luis Obispo County. May occur in serpentinite soils and is associated with meadows, seeps, and coastal valley or foothill grasslands.
Hearsts' ceanothus *Ceanothus hearstiorum*	N	R	1B.2	Endemic to California, where it grows wild only on the hilly coastline of San Luis Obispo County. This plant prefers to be near the coast where it would have cooler temperatures and some fog. Tolerates sandy/rocky, clay or adobe soils but not pure beach sand.
maritime ceanothus *Ceanothus maritimus*	N	R	1B.2	Rare species of ceanothus known from only a few occurrences in the vicinity of Hearst Ranch. It shares the same range as the similarly rare *Ceanothus hearstiorum*, growing on the coastal bluffs. Normally found on sand sea bluffs, but tolerant of clay or rocky soils.
Santa Lucia purple amole *Chlorogalum purpureum var. purpureum*	TH	N	1B.1	Very rare perennial herb found in foothill woodland environments and poorly vegetated, infertile, gravelly or clay soil patches in blue oak woodland or chaparral edges, ± 300 meters elevation.

Monterey spineflower *Chorizanthe pungens var. pungens*	TH	N	1B.2	The Monterey spineflower grows in sandy soils in coastal dunes and favors chaparral, foothill woodland, northern coastal scrub, and coastal sage scrub communities and is known to occur between 0 to 558ft in elevation. Blooms April-June.
Chorro Creek bog thistle *Cirsium fontinale var. obispoense*	E	E	1B.2	Chorro Creek bog thistle occurs naturally only in San Luis Obispo County and is restricted to open seeps in serpentine outcrops and drainages. May occur along streams (extremely rare).
compact cobwebby thistle *Cirsium occidentale var. compactum*	N	N	1B.2	Occurs in chaparral, coastal dunes and bluff communities, coastal prairie, and coastal scrub in northern San Luis Obispo County and Monterey County.
dune larkspur *Delphinium parryi ssp. blochmaniae*	N	N	1B.2	The dune larkspur occurs in maritime chaparral communities and coastal dune habitats as it prefers sandy soils. Low elevation species.
Blochman's dudleya *Dudleya blochmaniae ssp. blochmaniae*	N	N	1B.1	Occurs on rocky, often clay-dominant or serpentinite soils in coastal scrub, chaparral, and grassland habitats at less than 450 m elevation. Commonly found on coastal bluffs.
Ojai fritillary *Fritillaria ojaiensis*	N	N	1B.2	This wildflower is endemic to central California, where it is known from very few occurrences in the central Coast Ranges. Rocky slopes, river basins. May occur between 380-4800’ elevation.
Hardham's bedstraw *Galium hardhamiae*	N	N	1B.3	A strict endemic occurring in closed-cone pine forests and chaparral on serpentinite soils at less than 1000 m elevation. Known to associate with Sargent cypress (*Cupressus sargentii*).
Kellogg's horkelia *Horkelia cuneata var. sericea*	N	N	1B.1	Occurs in sandy or gravelly openings in closed-cone coniferous forests, maritime chaparral, coastal dunes, and coastal scrub.
perennial goldfields *Lasthenia californica ssp. macrantha*	N	N	1B.2	Perennial goldfields occur in grassland and dune habitats along the immediate coast in full sun and damp coastal breezes; found in coastal dune, coastal bluff, and coastal scrub habitats.

Santa Lucia bush-mallow *Malacothamnus palmeri var. palmeri*	N	N	1B.2	Primarily found in rocky chaparral communities and interior valley foothills. Extremely rare endemic species.
Palmer's monardella *Monardella palmeri*	N	N	1B.2	A species of flowering plant in the mint family, endemic to California, where it is known only from the Santa Lucia Mountains of the California Coast Ranges in Monterey and San Luis Obispo Counties. It grows in local habitat types such as chaparral and forest, often on serpentine soils.
southern curly-leaved monardella *Monardella sinuata ssp. sinuata*	N	N	1B.2	Sandy soils, coastal strand, dune and sagebrush scrub, coastal chaparral, and oak woodland <300 m elevation.
woodland woollythreads *Monolopia gracilens*	N	N	1B.2	This species grows in openings of grasslands, chaparral, redwood forests, and oak woodland communities. The woodland woollythreads favors serpentine soils between 100-1200 m elevation.
Arroyo de la Cruz lousewort *Pedicularis rigginsiae*	N	N	1B.1	Endemic to the Arroyo de la Cruz area of San Luis Obispo County, California. Very few recorded occurrences.
Monterey pine *Pinus radiata*	N	N	1B.1	The Monterey pine occurs primarily along the Pacific Coast of California in three disjunct populations in San Mateo and Santa Cruz Counties, Monterey County, and San Luis Obispo County. Variations of this species occur on Guadalupe Island and Cedros Island off the west coast of Baja California. Monterey pine grows in coastal, closed-cone coniferous woodlands on primarily well-drained soils. The cones of the Monterey pine are serotinous and dependent on fire or high temperatures to release their seeds; therefore, this species is localized to fire- adapted environments where natural regeneration occurs. Commonly associated with western hardwood communities and may occur with other closed-cone pine species such as knobcone pine (*Pinus attenuata*) and bishop pine (*Pinus muricata*). Monterey pine can typically be found between 197-410 ft elevation.

Santa Lucia mint *Pogogyne clareana*	N	E	1B.2	Summer-dry creek beds, swales, vernal pools. Chaparral and oak woodland environments. Known only from about fifty occurrences all located within the bounds of Fort Hunter Liggett.
adobe sanicle *Sanicula maritima*	N	R	1B.1	Endemic to California, primarily known from limited occurrences in Monterey and San Luis Obispo Counties. Habitat includes moist coastal meadows and canyons.
most beautiful jewelflower *Streptanthus albidus ssp. peramoenus*	N	N	1B.2	This extremely rare species primarily occurs in serpentine soils in open areas of chaparral, valley and foothill grassland, and cismontane woodland habitats. May occur on metamorphic soils (Franciscan formation) on generally barren slopes.
California seablite *Suaeda californica*	E	N	1B.1	Rare species of flowering plant in the amaranth family where it is known from a few occurrences on the margins of coastal salt marshes around Morro Bay.
twisted horsehair lichen *Sulcaria spiralifera*	N	N	1B.2	Endemic to coastal dune forests in western North America. It occurs at scattered localities from central California to Washington. It is rare throughout its range, except on the Samoa Peninsula in California's Humboldt County and on the Oregon Dunes in Coos County where it is locally abundant.
Cook's triteleia *Triteleia ixioides ssp. cookii*	N	N	1B.3	Endemic to the southern Santa Lucia Mountains, in southern California. Stream sides, wet ravines on serpentine, often near cypresses <700 m elevation.

The above table refers to all special-status plant species returned by CNDDB with federal or state listings (R, TH, E, CTH, CE) within a 9-quad vicinity of the project areas.

Additionally, the above table refers to all non-listed special-status plant species returned by CNDDB possessing CNPS California Rare Plant Ranks of 1A/1B or 2A/2B within a 5-mile radius of the project areas.

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

CNPS Identifiers Used on the Table

- **1A** - Plants presumed extinct in California and rare/extinct elsewhere.
- **1B.1** - Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
- **1B.2** – Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
- **1B.3** – Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
- **2A** – Plants presumed extirpated in California, but more common elsewhere
- **2B.1** – Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
- **2B.2** – Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
- **2B.3** – Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California

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

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	Impact Geo-1, 3.7	LTS	SPR GEO-1, 2, 3, 4, 5, 6, 7, 8, SPR HYD-3 SPR AQ- 3 SPR HYD- 4	Yes	LTS	☒
Project treatments would include manual treatment, prescribed broadcast and pile burning, and mechanical treatment, which would result in vegetation removal and soil disturbance. Potential impacts related to soil erosion during implementation of the treatment project are within the scope of the of the activities and impacts addressed in the PEIR because the extent of vegetation removal, pile burning, and use of mastication equipment are consistent with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.7.3, 26-29). *The potential impacts are within the scope of the PEIR because the treatment activities are consistent and will comply with SPR's GEO-1 through GEO-5, GEO-7, GEO-8, HYD-4, AD-3, and AQ-4, which will avoid and minimize the risk of substantial erosion and loss of topsoil. All equipment will be limited to operating on slopes less than 40% but may utilize access routes that are 50% or less. The average slope of operation throughout the treatment areas ranges from approximately 10-30%. Operations will not occur while soils are saturated to avoid disturbances caused by the removal of vegetation.* *Although treatments will reduce vegetation and disturb topsoil, the implementations of the SPRs, slope limitations, and soil condition limitations indicate that the potential for this project impact to have substantial erosion and loss of topsoil would be less than significant.*						
Impact GEO-2: Increase Risk of Landslide	Impact Geo-2, 3.7	LTS	SPR GEO-3, 4, 7, 8, SPR AQ- 3	Yes	LTS	☒
No mechanical treatments are proposed on slopes greater than 50%. The two project sites exhibit very gentle slopes and mostly flat ground. Most mechanical mastication operations will occur on slopes averaging 30% or less; no significant increase in risk of landslide is anticipated. Potential impacts related to landslides during implementation of the treatment project are within the scope of the of the activities and impacts addressed in the PEIR because the extent of vegetation removal, intensity of prescribed burning, and avoidance of steep slopes are consistent with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.7.3, 29-30). Equipment will not operate in wet areas to avoid						

disturbances caused by the removal of vegetation. The project area does not contain any Class II or Class I streams. This project will comply with SPRs GEO-3, GEO-4, GEO-7, GEO-8, and AQ-4 to avoid or minimize the risk of landslide resulting from these treatment activities.

Based on the equipment operation limitations, implementation of SPRs, and the general absence of slopes steep enough for significant landslide to occur within the project area, the potential for this impact to increase the risk of landslide will be less than significant.

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

The proposed treatments are consistent with the treatment types and activities evaluated in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and has determined they are consistent with the environmental and regulatory settings discussed in the PEIR (CalVTP Final PEIR, Volume II, 3.7.1 and 3.7.2). No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact to geology, soils, paleontology, or mineral resources would occur that is not covered in the PEIR.

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

Mechanical treatments will be suspended during heavy precipitation events to minimize the risk of soil compaction and disturbance. This project does not propose prescribed herbivory at this time.

- *All mechanized equipment including track chippers 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. Handwork may continue.*

SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. This SPR applies only to mechanical treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
Operators will avoid driving heavy equipment and other high ground pressure vehicles on saturated soils to minimize the risk of soil compaction and disturbance.			
SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. This SPR only applies to mechanical and prescribed herbivory treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
The implementation of this SPR will stabilize soils following the proposed mechanical treatments. This project proposes chipping materials and scattering the chips within the treated areas, which will reduce the amount of exposed bare soil following treatments.			
SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. This SPR applies only to mechanical and prescribed burning treatment activities and all treatment types.	Yes	CAL FIRE During-Post	CAL FIRE
The rainy period for this project area is Mid-October through April. After the first storm event where 1.5 inches of rain or more fell within a 24-hour period the project area will be inspected to determine if water breaks functioned properly, if any area is identified where erosion could result in substantial discharge the area will be immediately corrected and stabilized.			
SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types.	Yes	CAL FIRE During-Post	CAL FIRE
The implementation of this SPR will direct stormwater runoff to minimize the risk of erosion occurring within treatment areas or road infrastructure utilized during operations following mechanical and manual treatments that may compact or disturb soils.			
SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE

Pile burning activities will be implemented and supervised by CAL FIRE and burn piles will not exceed 20 feet in length, width, or diameter, unless implemented in accordance with the exceptions described in the PEIR (CalVTP Final PEIR Volume II Section 2.7.6, 47).			
SPR GEO-7 Minimize Erosion, Slope Restrictions for Heavy Equipment and Tractor Roads. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
The proposed mechanical treatments are limited to slopes equal to or less than 40%. Equipment access is limited to slopes equal to or less than 50% and the average slope of operation throughout the treatment areas ranges from approximately 20-30%.			
SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types.	No	CAL FIRE N/A	CAL FIRE
The proposed mechanical treatments are limited to slopes equal to or less than 40%. Equipment access is limited to slopes equal to or less than 50% and the average slope of operation throughout the treatment areas ranges from approximately 20-30%, therefore, SPR GEO-8 does not apply to this project.			

EC-7: GREENHOUSE GAS EMISSIONS

	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GHG-1: Conflict with applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs	Impact GHG-1, 3.8	LTS	SPR GHG- 1	Yes	LTS	☒
During initial and maintenance treatments, the use of vehicles and mechanical equipment would result in greenhouse gas (GHG) emissions. The potential for these treatments and treatment activities to result in a conflict with the applicable plans, policies, and regulations regarding GHG emissions was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.8.3, page 10-11). The proposed project is consistent with all applicable plans, policies, and regulations related to the purpose of reducing GHG emissions and treatment activities area consistent with those analyzed in the PEIR. The project proponent will comply with SPR GHG-1 to provide all necessary data required by the USFS and FRAP						

to fulfill AB 1504. The project impacts relating to the consistency of treatments with the applicable plans, policies, and regulations will remain less than significant.						
Impact GHG-2: Generate Greenhouse Gas Emissions through Treatment Activities	Impact GHG-2, 3.8	PSU	SPR AQ- 3 MM GHG- 2	Yes	PSU	☒
The use of vehicles and pile burning and mechanical equipment during initial and maintenance treatments would result in GHG emissions. *The potential for treatments to generate GHG emissions was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.8.3, page 11-17). In the long-term, the treatment activities are expected to have carbon sequestration benefits and are intended to reduce the risk of wildfire, which would decrease projected GHG emissions.* *Based on the proposed treatments in tree fuel types listed in the CalVTP Table 3.8-3, mechanical treatments are estimated to produce approximately 494.7 MTCO2e, or 0.92 MTCO2e/ acre, manual treatments are estimated to produce approximately 39.8 MTCO2e, or 0.69 MTCO2e/acre, pile burn treatments are estimated to produce approximately 63.15 MTCO2e/acre, and herbicide treatments are estimated to produce approximately 0.02 MTCO2e/acre. The actual acreage that will be treated by pile burning and herbicide is variable, therefore, accurate estimates of GHG emissions for these treatment activities are not provided. The estimated calculation derived from the values in the CalVTP PEIR Table 3.8-3 does not include the GHG emissions from vehicle transport, including the transportation of equipment and contractors. CalVTP PEIR Table 3.8-2 indicates that in 2008, the largest fire year displayed in the table, 1.35 million acres burned producing approximately 45.7 MMTCO2. As of October 2020, approximately 4 million acres have burned, which is approximately three times the acreage burned and MMTCO2 produced in 2008. Implementing the treatment activities for this project would produce significantly less MTCO2 than an average wildfire year and would create an opportunity for wildfire to be contained or slow the rate of its spread.* *The GHG emissions produced from this treatment project are within the scope of the impacts evaluated in the PEIR because the proposed activities, equipment and duration of use, and the intent of the treatments to reduce wildfire risk and GHG emissions associated with wildfire are consistent with those analyzed in the PEIR. Therefore, the potential for the project treatment activities to result in GHG emissions is considered potentially significant and unavoidable, as stated in the PEIR (CalVTP Final PEIR Volume II Section 3.8.3, page 17).*						
Other Impacts to related to Greenhouse Gases: Would the project result in other impacts related to greenhouse gases that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined that they are consistent with the environmental and regulatory settings as stated in the PEIR (CalVTP Final PEIR Volume II 3.8.1 and 3.8.2). No changed circumstances would lead to new						

significant impacts not addressed in the PEIR. Therefore, no new impact regarding GHG emissions would occur that is not covered in the PEIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE During-Post	CAL FIRE
The project proponent will comply with SPR GHG-1 to provide all necessary data required by the USFS and FRAP to fulfill AB 1504.			
MM GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.	Yes	CAL FIRE Prior-During	CAL FIRE
A Burn Plan pursuant to SPR AQ-3 will be prepared by the project proponent prior to prescribed broadcast and pile burn treatment activities. Methods for reducing GHG emissions may include, but are not limited to, the retention of large fuels (e.g., large logs, snags) to reduce total area burned and scheduling burns to occur before new fuels appear.			

EC-8: ENERGY

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact ENG-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy	Impact ENG-1, 3.9	LTS	N/A	Yes	LTS	☒
The use of vehicles, mechanical equipment, chainsaws, and other mechanized hand tools during initial and maintenance treatments will result in the consumption of energy. The potential for impacts to result in wasteful, inefficient, or unnecessary consumption of energy and the use of fossil fuels was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.9.3, page 7-8). The consumption of energy during the project treatment activities is within the scope of the impacts addressed in the PEIR because the treatment activities, the equipment, and its duration of use, are consistent with those analyzed in the PEIR. There are no applicable SPR's or mitigation measures for this project impact, however, idle time for all equipment will be limited and crews will be encouraged to carpool to reduce the amount of energy consumed throughout the duration of this project. Therefore, the potential for this project to result in significant wasteful, inefficient, or unnecessary energy consumption remains less than significant.						
Other Impacts to Energy Resources: Would the project result in other impacts to energy resources that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities discussed in the CalVTP PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined that they are consistent with the regulatory and environmental setting conditions developed in the PEIR (CalVTP Final PEIR, Volume II, 3.9.1 and 3.9.2). No changed circumstances would lead to significant impacts not addressed in the PEIR. Therefore, no new impact related to energy resources would occur that is not covered in the PEIR.						

EC-9: HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

	PEIR specific	Project specific

	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	Impact HAZ-1, 3.10	LTS	SPR HAZ- 1	Yes	LTS	☒
The initial and maintenance treatments would include mechanical treatments and may include herbicide application, both of which would require the use of hazardous materials. The potential for treatment activities to create a significant health hazard from the use of hazardous materials was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, page 14-15). The potential impacts related to the use of fuels during treatment activities are within the scope of the activities and impacts discussed in the PEIR because the treatment types, equipment, and types of hazardous materials to be used are consistent with those analyzed in the PEIR. *Any hazardous materials and emissions would result from the use of diesel fuel, chainsaw and mechanized hand tool fuel, and chainsaw bar oil; these materials will be transported and stored in appropriate containers. All personnel will wear personal protective equipment (PPE) and will be properly trained in the usage of equipment. All equipment associated with the proposed project will comply with SPR HAZ-1 to ensure proper maintenance and minimize leaks. SPR HAZ-2 requires mechanized hand tools to have spark arrestors and will be implemented to minimize the risk of potential ignitions. Herbicide application impacts are discussed under Impact HAZ-2 below.* *Based on the proper storage and transportation of fuels and oils, the use of PPE, and the implementation of the applicable SPR's, the potential for this project to result in significant health hazards from the use of hazardous materials is less than significant.*						
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	Impact HAZ-2, 3.10	LTS	SPR HAZ- 5, 6, 7, 8, 9	Yes	LTS	☒
Initial and maintenance treatments may include herbicide application that would require the transportation, storage, and disposal of various herbicides. The potential for treatment activities to create a significant health hazard from the use of herbicides was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, page 15- 18). The potential impacts related to the use of herbicides during treatment activities are within the scope of the activities and impacts discussed within the PEIR because the application methods and herbicides to be used are consistent with those analyzed in the PEIR. *Under the CalVTP, herbicide treatments will be limited to ground-level application and must comply with all Environmental Protection Agency (EPA) label directions. According to the PEIR Table 3.10-1, the herbicides proposed under the CalVTP pose low levels of toxicity to humans (CalVTP Final PEIR Volume II Section 3.10.3 Table 3.10-1, page 16-17). In addition, the proposed project treatments will comply with SPR HAZ-*						

5 through HAZ-9, which requires the following: a Spill Prevention and Response Plan will be prepared prior to any herbicide treatment activities (SPR HAZ-5), compliance to herbicide application regulations including permitting and licensing through the San Luis Obispo County Agricultural Commissioner's office prior to herbicide application (SPR HAZ-6), triple rinse herbicide containers and dispose of rinsed materials at an approved site (SPR HAZ-7), minimize herbicide drift into public areas through application parameters such as limitations for nozzle pressure and nozzle distance from vegetation (SPR HAZ-8), and notification of herbicide within 500 feet of public areas including posting signs on either side of herbicide treatment areas (SPR HAZ-9). Based on compliance to regulatory requirements and SPR's in addition to utilizing low-level toxicity herbicides proposed under the PEIR, the potential for this project to result in significant health hazard from the use of herbicides is less than significant.

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

The initial and maintenance treatments of this proposed project include mechanical treatments that will disturb soils, which could expose workers, the public, or the environment to hazardous material if a contaminated site is present within the project area. The potential for the treatment activities to disturb or encounter contaminated sites that could expose workers, the public, or the environment to hazardous materials was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, page 18-19). Based on the Cortese List from the DTSC, there are no known hazardous waste sites identified within the proposed project areas. In addition, the project areas do not appear to contain any naturally occurring asbestos.

The project proponent will implement and comply with Mitigation Measure HAZ-3 to identify and avoid any known hazardous waste sites. The project area is on private property and no public state or federal lands exist within the boundary of the treatment sites. Treatment areas are only accessible to the public under the revocable permission of the Landowner. Public access will be suspended during treatment operations.

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

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined that they comply with the regulatory and environmental setting conditions as stated in the PEIR (CalVTP Final PEIR Volume II 3.10.1 and 3.10.2). No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to hazardous materials, public health, and safety would occur that are not covered in the PEIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR HAZ-1 Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Mechanical and manual treatment crews and prescribed burn crews will maintain all equipment in compliance with SPR HAZ-1 to minimize the risk of impacts resulting from leaks.			
SPR HAZ-2 Require Spark Arrestors: This SPR applies only to manual treatment activities and all treatment types	Yes	CAL FIRE Prior-During	CAL FIRE
CAL FIRE chainsaw training course requires and trains employee's chainsaw operations without a spark arrestor is prohibited, and the chainsaw is out of service until a spark arrestor is installed.			
SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
Manual treatment crews will carry one fire extinguisher per chainsaw and vehicles will be equipped with one long-handled shovel and one axe or Pulaski.			
SPR HAZ-4 Prohibit Smoking in Vegetated Areas. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Contractor crews shall not smoke in vegetated areas prior to or during operations.			
SPR HAZ-5 Spill Prevention and Response Plan: The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to provide protection to onsite workers, the public, and the environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE

The project proponent (CAL FIRE) or a licensed Pest Control Advisor (PCA) will prepare a SPRP prior to herbicide treatments.			
SPR HAZ-6 Comply with Herbicide Application Regulations. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
The project proponent (CAL FIRE) will coordinate herbicide use with the San Luis Obispo County Agricultural Commissioner's Office prior to implementation of herbicide treatments.			
SPR HAZ-7 Triple Rinse Herbicide Containers. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
The project proponent (CAL FIRE) or a supervised designee will triple rinse herbicide containers at approved locations and dispose of rinsate in batch tanks per Rinse and Drain Procedures defined in 3 CCR Section 6684.			
SPR HAZ-8 Minimize Herbicide Drift to Public Areas. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
The project proponent (CAL FIRE) or a supervised designee will minimize herbicide drift to public areas by employing responsible herbicide application parameters including, but not limited to, avoiding application in excessive winds, applying large droplet sizes, maintaining low nozzle pressure, and application in close proximity to the target vegetation.			
SPR HAZ-9 Notification of Herbicide Use in the Vicinity of Public Areas. This SPR applies only to herbicide treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
The project proponent (CAL FIRE) or a supervised designee will distribute notices of herbicide use prior to the implementation of herbicide treatments in public areas within the vicinity of the project site when required following consultation with the County Agriculture Commission.			
MM HAZ-3: Identify and Avoid Known Hazardous Waste Sites Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials.	Yes	CAL FIRE Prior	CAL FIRE
The project proponent has completed pre-operational research to determine that there are not any sites known to have previously used, stored, or disposed of hazardous materials within the project area.			

EC-10: HYDROLOGY AND WATER QUALITY

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact HYD-1: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Prescribed Burning	Impact HYD-1, 3.11	LTS	SPR HYD- 4 SPR AQ- 3 SPR BIO- 4, 5 SPR GEO-4, 6 MM BIO- 3b	Yes	LTS	☒
No Class I or Class II streams are present within the proposed treatment areas. *Pile construction and pile burn treatments are not proposed to occur within watercourse protection zones or watercourse channels inside the project area and will be implemented outside of Class III ELZs. No ignition or use of accelerant associated with prescribed broadcast burn treatments may occur within Class III channels or ELZs; however, low intensity burns or backing fires may be allowed to enter or spread into Class III ELZs.* *Equipment used for prescribed burn operations will be excluded from Equipment Exclusion Zones (ELZs) around Class III watercourses except in locations along the Class III where designated equipment crossing zones and control lines are established and flagged.* *The impact is within the scope of the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, 24-27) and site-specific analysis.*						
Impact HYD-2: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Manual or Mechanical Treatment Activities	Impact HYD-2, 3.11	LTS	SPR HYD- 1, 4, 5 SPR BIO- 1 SPR GEO- 1, 2, 3, 4, 7, 8 SPR HAZ- 1, 5	Yes	LTS	☒
Initial and maintenance treatments would include mechanical treatments, and manual treatments. All qualifying manual and mechanical treatments implemented under the CalVTP would integrate SPRs into treatment design to protect watercourses, limit equipment use on wet soils or steep slopes, stabilize highly disturbed areas, prevent concentration of runoff, and prevent spill or leaks from equipment. The						

potential for mechanical treatments to violate water quality regulations or degrade water quality was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, 27-28).

Equipment Limitation Zones (ELZs) have been identified and established around Class III watercourses within the project area; No Class I or Class II watercourses are present within the treatment areas. Equipment use will be excluded from Class III Equipment Exclusion Zones except in locations along the Class III where equipment crossing zones are established. Equipment crossing points along Class IIIs shall be clearly flagged and identified with the contractor in the field prior to operations to prevent degradation of downstream beneficial uses of water. The centerlines of Class III watercourses have been flagged; ELZs extend to a minimum of 30' from the centerline on each side of a Class III stream channel.

Potential impacts are within the scope of the activities and impacts evaluated in the PEIR because the use of equipment and associated impacts to water quality are consistent with those analyzed in the PEIR. The project proponent will implement SPR GEO-1 through GEO-4, GEO-7, GEO-8, BIO-1, HAZ-1, and HYD-1 to avoid and minimize the risk of substantial degradation to surface or groundwater quality from mechanical treatment activities. The implemented SPRs include limitations to precipitation, soil saturation, and operable slopes, stabilizing disturbed soil and erosion monitoring, equipment maintenance, preliminary review of biological resources, and compliance with water quality regulations.

Based on avoidance measures and implementation of SPRs, the potential for this project to result in a violation of water quality standards or waste discharge requirements, degradation of surface and ground water quality, or conflict with or obstruct the Water Quality Control Plan would be less than significant.

Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory	Impact HYD-3, 3.11	LTS	SPR HYD- 3	No	N/A	☒
This impact does not apply to the initial treatment because prescribed herbivory is not proposed for this project at this time.						
Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Ground Application of Herbicides	Impact HYD-4, 3.11	LTS	SPR HYD- 5 SPR BIO- 4 SPR HAZ- 5, 7	Yes	LTS	☒
Treatment activities may include limited, selective herbicide application, which can affect water quality through runoff, leaching, drift, and misapplication or spills. The potential for herbicide treatment activities to 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 was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, 29-30). Potential impacts are within the scope of the activities and impacts addressed in the PEIR because the methods of herbicide application, transportation, storage, and disposal are consistent with those analyzed in the PEIR.

Under the CalVTP, herbicide treatment activities are limited to ground-level application by hand (SPR BIO-4) and compliance with EPA labels is required. The proposed project treatment areas are located outside of any Class I or Class II WLPZs, and SPR HYD-5 prohibits nonaquatic herbicide formulations from being applied within 50 feet of a waterbody or riparian area and prohibits application during precipitation or within 24 hours of forecasted precipitation. In addition, a Spill Prevention and Response Plan will be prepared prior to herbicide treatment activities (SPR HAZ-5) and all herbicide containers must be triple rinsed and hazardous waste materials must be disposed of at an approved site (SPR HAZ-7).

Based on the compliance to EPA labels and SPR limitations, the potential for this project to result in a violation of 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 is less than significant.

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

The initial and maintenance treatments include the use of mechanical treatment, which would result in ground disturbance. The potential for mechanical treatment to substantially alter existing drainage patterns of a project site was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, 30-31). The potential impacts are within the scope of the activities and impacts addressed in the PEIR because the use of equipment and treatment activities are consistent with those analyzed in the PEIR.

All identified Class III drainages have been flagged in the field prior to operations where equipment has the potential to approach the channel. Chipped material should not be placed or cast into watercourses or near existing culverts. The implementation of SPR HYD-1, HYD-2, HYD-4, and HYD-6 would avoid and minimize the risk of substantially altering the existing drainage pattern of the treatment area through compliance to water quality regulations, avoiding construction of new roads, identifying and establishing ELZs, and protecting existing drainage systems. Therefore, any impact would be less than significant.

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

The proposed treatment is consistent with the treatment types and activities addressed in the PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the regulatory and environmental settings discussed in the PEIR (CalVTP Final PEIR, Volume II, 3.11.1 and 3.11.2). No changed circumstances would lead to new significant impacts not analyzed in the PEIR. Therefore, no new impact related to hydrology and water quality would occur not covered in the PEIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR HYD-1 Comply with Water Quality Regulations: Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Initial and maintenance treatments will be implemented in conformance with the Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and the water quality control plan for the Central Coast Basin, pursuant to the standards adopted by the California Central Coast Regional Water Quality Control Board (CCRWQCB) (Region 3). The CCRWQCB has been contacted and consulted during the development phase of this project to ensure its compliance with applicable water quality regulations.			
SPR HYD-2 Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE During	CAL FIRE
No new roads will be constructed as part of the proposed project.			
SPR HYD-3 Water Quality Protections for Prescribed Herbivory: This SPR applies to prescribed herbivory treatment activities and all treatment types.	No	CAL FIRE N/A	CAL FIRE
This project does not include prescribed herbivory at this time, therefore, this SPR does not apply.			
SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) as defined in 14 CCR Section 916 .5 of the California Forest Practice Rules on either side of watercourses. This SPR applies to all treatment activities and treatment types.	No	CAL FIRE N/A	CAL FIRE

Standards and protection buffers related to Watercourse and Lake Protection Zones (WLPZs), as defined in 14 CCR Section 916.5 of the California Forest Practice Rules, apply to Class I and Class II streams. No Class I or Class II streams are present within the project or treatment areas. *Class III streams identified within proposed treatment areas are ephemeral and have been provided an Equipment Limitation Zone (ELZ) buffer of at least 30' in areas where equipment has the potential to approach a Class III stream channel. Equipment use will be excluded from Class III ELZs except in locations along the Class III where equipment crossing zones are established to prevent the degradation of downstream beneficial uses of water. Equipment crossing points along Class IIIs shall be clearly flagged and identified with the contractor in the field prior to operations.*			
SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: This SPR applies to herbicide treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Herbicide application will be conducted in accordance with applicable local ordinances and polices, SPRs and Mitigation Measures, and manufacturer recommendations to protect non-target and special-status plant species.			
SPR HYD-6 Protect Existing Drainage Systems: This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
All Class III watercourses in proximity to treatment areas and existing watercourse crossings shall be flagged prior to operations to exclude heavy equipment from accessing the watercourses and minimize the risk of mechanical treatments resulting in an impact to existing drainage systems.			

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

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	Impact LU-1, 3.12	LTS	SPR AD-3, 9	No	N/A	☒
The proposed project will occur on private property that allows limited public access only at San Simeon Point under the revocable permission of the Landowner and within the terms of the 2005 conservation easement. Public access to Pico Creek is prohibited without prior consent from the Landowner. This Project Specific Analysis will be submitted to local agencies including, but not limited to, San Luis Obispo County Planning & Building Department to ensure all standards of local coastal programs, county land use plans, and local ordinances, regulations, and policies are satisfied prior to treatments. *Due to the proposed treatment areas being located within the California Coastal Zone, the California Coastal Commission (CCC) and Upper Salinas-Las Tablas Resource Conservation District were consulted during the development of this project to ensure compliance with the Upper Salinas-Las Tablas Resource Conservation District Forest Health and Fire Resilience Public Works Plan (PWP) (2021). A Coastal Vegetation Treatment Standards (Coastal VTS) document has been developed pursuant to the PWP and is included as part of this PSA (Attachment D).* *The potential for treatment activities to cause a significant environmental impact to these standards was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.12.3, 13-14). The treatment types and activities are within the scope of those evaluated in the PEIR because the treatment activities and associated impacts are consistent with those analyzed in the PEIR.* *The implementation of SPR AD-3 will avoid and minimize the risk of significant environmental impact due to conflict with a land use plan, policy, or regulation. Therefore, the impact does not apply.*						
Impact LU-2: Induce Substantial Unplanned Population Growth	Impact LU-2, 3.12	LTS	N/A	Yes	LTS	☒
The initial and maintenance treatments will require contractors and local CAL FIRE crews for implementation. The potential for treatments to result in substantial population growth as a result of increases in demand for employees was analyzed in the PEIR (CalVTP Final PEIR Volume						

II Section 3.12.3, page 14-15). Impacts associated with short-term increases in demand for employees during the implementation of the treatment project are within the scope of the activities and impacts addressed in the PEIR because the number of workers required for treatment implementation is consistent with the crew size analyzed in the PEIR for the types of treatments proposed.

Activities proposed under this project are not expected to result in substantial demand for additional employees to implement treatments or cause a need for new housing, roads, or infrastructure. Any impact on population growth in the area would be non-existent or less than significant.

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

The proposed treatment is consistent with the treatment types and activities covered in the PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory setting conditions discussed in the PEIR (CalVTP Final PEIR, Volume II, 3.12.1 and 3.12.2). No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to land use and planning, population and housing would occur that is not covered in the PEIR.

EC-12: NOISE

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

The initial and maintenance treatments would include the use of mechanical treatment that requires heavy, noise-generating equipment. The potential for substantial short-term increase in ambient noise levels was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, 9-12). Short-term increases in noise from the use of heavy equipment is within the scope of the activities and impacts addressed in the PEIR

because the types and number of equipment proposed, and the duration of use of the equipment are consistent with those analyzed in the PEIR.

The implementation of SPR AD-3 and NOI-1 through NOI-6 would minimize the risk of increasing exterior ambient noise levels during treatment implementation. The applicable SPRs require that heavy equipment use will be limited to daytime hours (SPR NOI-1), equipment will be maintained and equipped with exhaust mufflers and engine shrouds (SPR NOI-2), engine shrouds will be closed during operations (SPR NOI-3), staging areas will be located away from noise-sensitive land uses (SPR NOI-4), equipment idle time will be limited to 5 minutes (SPR NOI-5), and noise-sensitive receptors located within 1,500 feet of treatment activities will be notified (SPR NOI-6). Therefore, the impact would be less than significant.

SPR NOI-1 allows for project proponents not subject to local ordinances (e.g., CAL FIRE) to adhere to operational hour limitations described in the PEIR (CalVTP Final PEIR Volume II Section 2.7.10, 52-53) or elect to adhere to the local Noise Level Standards identified by Title 23 of the San Luis Obispo County Code, Coastal Zone Land Use Ordinance (Chapter 6, Sections 42-50).

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

The initial and maintenance treatments would require large trucks to haul heavy equipment and crews to the project site. These haul trucks would pass by residential receptors, which could increase the single event noise levels (SENL). The potential for a substantial short-term increase in SENL was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, 12). Short-term increases in noise from the use of heavy equipment during project implementation is within the scope of the treatment activities and impacts addressed in the PEIR because the number and types of equipment proposed are consistent with those analyzed in the PEIR. All haul trips and use of heavy equipment will be limited to daytime hours to avoid sleep disturbance of nearby residents.

SPR NOI-1 allows for project proponents not subject to local ordinances (e.g., CAL FIRE) to adhere to operational hour limitations described in the PEIR (CalVTP Final PEIR Volume II Section 2.7.10, 52-53) or elect to adhere to the local Noise Level Standards identified by Title 23 of the San Luis Obispo County Code, Coastal Zone Land Use Ordinance (Chapter 6, Sections 42-50).

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

The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the regulatory and environmental

setting conditions addressed in the PEIR (CalVTP Final PEIR Volume II 3.13.1 and 3.13.2). No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to noise would occur that is not analyzed in the PEIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE During	CAL FIRE
Per SPR NOI-1, noise-generating vegetation treatment activities will be limited to: *Monday – Saturday between 7:00 am to 6:00 pm* *Sunday and federal holidays 9:00 am to 6:00 pm* *SPR NOI-1 allows for project proponents not subject to local ordinances (e.g., CAL FIRE) to adhere to operational hour limitations described in the PEIR (CalVTP Final PEIR Volume II Section 2.7.10, 52-53) or elect to adhere to the local Noise Level Standards identified by Title 23 of the San Luis Obispo County Code, Coastal Zone Land Use Ordinance (Chapter 6, Sections 42-50).*			
SPR NOI-2 Equipment Maintenance: All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
Implementation of this SPR will reduce the amount of ambient noise produced during operations.			
SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
The implementation of this SPR will reduce the amount of ambient noise produced during operations.			
SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE During	CAL FIRE

The project is located on private property; public access will be suspended in areas where limited public access is allowed under the discretion of the Landowner. Equipment will be staged well within the project boundaries and away from noise-sensitive land uses.			
SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
The implementation of this SPR will reduce the amount of noise produced during operations.			
SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. This SPR applies only to mechanical treatment activities and all treatment types.	Choose an item.	CAL FIRE Choose an item.	CAL FIRE
All Off-site noise-sensitive receptors will be notified prior to treatments.			

EC-13: RECREATION

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	Impact REC-1, 3.14	LTS	SPR REC- 1	No	N/A	☒
The project boundaries do not contain any designated public recreation areas as defined in the PEIR (CalVTP Final PEIR Volume II Section 3.14.3, 6-7), therefore this impact does not apply. *Limited public access to San Simeon Point is permitted but revocable under the discretion of the Landowner and within the terms of a conservation easement enacted on the property in 2005. Permissive public access on San Simeon Point will be suspended during treatment operations and restored at the discretion of the Landowner. Public access to Pico Creek is prohibited without prior consent from the Landowner.*						
Other Impacts to Recreation: Would the project result in other impacts to recreation that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities addressed in the PEIR. The project proponent has considered all site-specific characteristics and determined they are consistent with the regulatory and environmental setting conditions presented in the PEIR (CalVTP Final PEIR Volume II 3.14.1 and 3.14.2). There are no changed circumstances that would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to recreation would occur that is not discussed in the PEIR.						

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

Limited public access to San Simeon Point is permitted but revocable under the discretion of the Landowner and within the terms of a conservation easement enacted on the property in 2005. Permissive public access on San Simeon Point will be suspended during treatment operations and restored at the discretion of the Landowner. Public access/recreation at Pico Creek is prohibited without prior consent from the Landowner.

Notification of treatment activities on San Simeon Point will be posted and/or made available to public visitors by appropriate and effective means at least 2 weeks prior to the commencement of treatment operations.

EC-14: TRANSPORTATION

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact TRAN-1: Result in temporary traffic operations impacts by conflicting with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures	Impact TRAN-1, 3.15	LTS	SPR TRAN- 1 SPR AD- 3	Yes	LTS	☒

The initial and maintenance treatments may temporarily increase vehicular traffic due to hauling equipment and crew transportation. The potential for a temporary increase in traffic to conflict with a program, plan, or policy addressing roadway facilities or prolonged road closures was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, 9-10). The proposed treatment project would be short-term and temporary increases in traffic related to the treatments are within the scope of the activities and impacts addressed in the PEIR because the treatment duration and number of vehicles is consistent with those analyzed in the PEIR.

The implementation of SPR AD-3 and TRAN-1 will reduce the risk of conflicting with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures through the implementation of traffic control during operations. Vehicles and equipment would be staged within project boundaries, away from public viewsheds where feasible and not located on permanent roads. Proposed treatment activities are not expected to result in substantial or long-term impacts to traffic operations, therefore this impact would be less than significant.

Impact TRAN-2: Substantially increase hazards due to a design feature or incompatible uses	Impact TRAN-2, 3.15	LTS	SPR TRAN- 1 SPR AD-3	No	N/A	☒
The impact does not apply to the proposed project initial and maintenance treatments because the treatments would not require the construction or alteration of any roadways.						
Impact TRAN-3: Result in a net increase in VMT for the proposed CalVTP	Impact TRAN-3, 3.15	PSU	MM AQ- 1	Yes	PSU	☒
Initial and maintenance treatments could temporarily increase vehicle miles traveled (VMT) because the project sites cover a large area, which requires vehicle trips to access the sites. The potential for net increase in VMT to occur was analyzed in the PEIR and was identified as potentially significant and unavoidable for the program as a whole (CalVTP Final PEIR Volume II Section 3.15.3, page 11-13). *This individual project is expected to require only a small number of trips per day; far less than the 110-trip threshold as discussed in the PEIR and the Technical Advisory on Evaluating Transportation Impacts (OPR, 2018). The most VMT would occur at the beginning and end of the project to haul equipment in and out of the project area. Daily VMT would consist of crew transportation to and from the site. Hiring local contractors will be encouraged where feasible to reduce the amount of VMT. No SPRs apply to this impact. The project proponent will implement Mitigation Measure AQ-1 to encourage crew members to carpool and further reduce VMT.* *Based on the implementation of Mitigation Measure AQ-1, measures to reduce VMT, and short-term duration of this project, the potential for this individual project to result in a net increase in VMT would remain potentially significant and unavoidable, as stated in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, page 12-13):* *"...even though the probability of a net VMT reduction could be reasonably expected to occur in the long term with the intended reduction in wildfire occurrence and severity, and individual vegetation treatments would likely be less than significant pursuant to the thresholds identified in OPR's Technical Advisory on Evaluating Transportation Impacts. Even though the intended outcome would be less than significant, the 'potentially significant and unavoidable' determination is necessary under CEQA to disclose in good faith the potential effects related to VMT generated by the program as a whole."*						
Other Impacts to Transportation: Would the project result in other impacts to transportation that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the regulatory and environmental						

setting conditions presented in the PEIR (CalVTP Final PEIR Volume II 3.15.1 and 3.15.2). No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to transportation would occur that is not covered in the PEIR.

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

Traffic will not be increased beyond what is normal for the local area. Vehicles will be entering and exiting the project areas from San Simeon Road in Old San Simeon Village and CA State Route 1. It will be determined by the project proponent if traffic control is needed at any location along public roads during operations.

Signs will be placed at the entrance to and along San Simeon Road as necessary advising motorists of slow vehicles entering and exiting the roadway.

During prescribed burning operations signs, will be placed along appropriate roadways to advise of smoke conditions.

EC-15: PUBLIC SERVICES, UTILITIES, AND SERVICE SYSTEMS

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

Vegetation treatments would include prescribed burning, which would require an on-site water supply. Water may be supplied from the Landowner's existing on-site water supply or municipal sources. During pile burning operations, fire equipment will come equipped with water prior to entering the project location. No significant impact to the local water supply in the form of increased demand for water as a result of this project is likely. The impact is within the scope of the PEIR (CalVTP Final PEIR Volume II Section 3.16.3, 9) and site-specific analysis.						
Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	Impact UTL-2, 3.16	PSU	SPR UTIL- 1	No	N/A	☒
The initial and maintenance treatments would generate biomass as a result of vegetation removal within the project site. Biomass generated would be chipped and scattered on-site because there is not a facility within an economically feasible distance to ship biomass off-site during this project, therefore, this impact does not apply to the project. This impact was evaluated in the PEIR and identified as potentially significant and unavoidable with no SPRs or Mitigation Measures because biomass hauled off-site could exceed the capacity of existing infrastructure handling biomass (CalVTP Final PEIR Volume II Section 3.16.3, 10-12). This project does not propose hauling any biomass off-site at this time; therefore, there is no potential to exceed the capacity of existing infrastructure.						
Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	Impact UTL-3, 3.16	LTS	SPR UTIL- 1	Yes	LTS	☒
Initial and maintenance treatments would generate biomass as a result of vegetation removal within the project site. The compliance with federal, state, and local management and reduction goals, statutes, and regulations related to solid waste was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.16.3, 12). This project would not include hauling biomass off-site because all biomass generated would be chipped and scattered in the treatment areas or piled and burned onsite. Compliance with all management and reduction goals, statutes, and regulations related to solid waste is within the scope of the activities and impacts addressed in the PEIR because the disposal of biomass onsite is consistent with those analyzed in the PEIR. SPR UTIL-1 does not apply to this project because no biomass will be hauled off-site. *Based on the compliance with all applicable management and reduction goals, statutes, and regulations, the potential for impact would be less than significant.*						
Other Impacts to Public Services, Utilities, and Service Systems: Would the project result in other impacts to public services, utilities, and service systems that are not evaluated in the CalVTP PEIR?				No	N/A	☒

The proposed treatment is consistent with the treatment types and activities considered in the PEIR. The project proponent has considered the site-specific characteristics and determined that they are consistent with the regulatory and environmental setting conditions addressed in the PEIR (CalVTP Final PEIR, Volume II, 3.16.1 and 3.16.2). No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to public services, utilities, or service systems would occur that is not covered in the PEIR.

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR UTIL-1: Solid Organic Waste Disposition Plan. For projects requiring the disposal of material outside of the treatment area, the project proponent will prepare an Organic Waste Disposition Plan prior to initiating treatment activities. This SPR applies only to mechanical and manual treatment activities and all treatment types.	No	CAL FIRE N/A	CAL FIRE
This SPR does not apply to this project because no biomass will be hauled off-site.			

EC-16: WILDFIRE

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	Impact WIL-1, 3-17	LTS	SPR HAZ-2, 3, 4	Yes	LTS	☒
Initial and maintenance treatments would include mechanical treatments using heavy equipment and prescribed burning which could exacerbate fire risk and expose people to uncontrolled spread of wildfire. The potential increase in exposure to wildfire during implementation of the proposed treatments was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3, 13-14). Increased wildfire risk associated with mechanical treatment and prescribed burning in vegetated areas is within the scope of the activities and impacts addressed in the PEIR because the equipment types and duration of use are consistent with those analyzed in the PEIR. *SPR HAZ-2, HAZ-3, and HAZ-4 will be implemented to reduce the risk of exposure to wildfire by requiring spark arrestors for all mechanical hand tools, a fire extinguisher to be carried with each chainsaw, and prohibiting smoking in treatment areas. In addition, modeling fire*						

behavior utilizing the Inter-agency Fuel Treatment Decision Support System (IFTDSS) based on the proposed treatments and Fuel Model 10 shows positive changes to fire behavior immediately following treatments similar to the proposed actions in this project. Fuel Model 10, or Mature/Overmature Timber and Understory, describes an excessively stocked forest environment similar to the conditions represented in the project area at Pico Creek where broadcast burning is proposed (Anderson, 1982). CAL FIRE crews will be implementing prescribed burn treatment activities.

This project intends to restore the forest stand to reflect native, well-spaced conditions that allow for low-intensity fire to move through slowly without reaching into the crown, ultimately increasing the potential for containment before a fire were to reach the communities of Old San Simeon Village and San Simeon Acres. This project would have a positive impact on wildfire after treatments. Based on the implementation of the SPRs and positive outcome of this project, the potential to substantially exacerbate fire risk and expose people to uncontrolled spread of wildfire would be less than significant.

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

The initial and maintenance treatments would include mechanical treatments using heavy equipment and prescribed burning which could exacerbate fire risk as discussed above in WIL-1. The proposed project treatments are limited to slopes equal to or less than 50% and equipment access is limited to slopes equal to or less than 50% and the average slope of operation throughout the treatment areas ranges from approximately 10-30%, therefore, SPR GEO-8 does not apply to this project impact.

The potential for post-fire landslides and flooding was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3,14-15). The potential exposure of people or structures to post-fire landslides and flooding are within the scope of the activities and impacts covered in the PEIR because the equipment types and duration of use are consistent with those analyzed in the PEIR. SPR GEO-3 through GEO-5 will be implemented to reduce the risk of erosion and mass wasting post-fire, in the event that a wildfire occurred as a result of the proposed treatments or an unrelated occurrence.

The applicable SPRs require the following: disturbed soil areas exhibiting bare soil over 50% or more of the treatment area will be stabilized with mulch or organic matter produced from mastication (SPR GEO-3), erosion will be monitored by the project proponent through an inspection for proper implementation of applicable SPRs and mitigations prior to the rainy season and an inspection of the treated areas for evidence of erosion after the first large storm or rainfall event (SPR GEO-4), and compacted treatment areas will be drained via water breaks where feasible (SPR GEO-5). This project intends to create conditions that will serve as an opportunity for fire resources to stop or slow the spread of wildfire, which may lead to smaller burn scars, or less area susceptible to post-fire flooding or erosion. Based on the implementation of the applicable SPRs, the potential for this project to result in post-fire flooding or landslides would be less than significant.

Other Impacts related to Wildfire: Would the project result in other impacts related to wildfire that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities considered in the PEIR. The project proponent has considered all site-specific characteristics and determined they are consistent with the environmental and regulatory setting conditions discussed in the PEIR (CalVTP Final PEIR, Volume II, 3.17.1 and 3.7.2). No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to wildfire would occur that is not covered in the PEIR.						

EC-17: ADMINISTRATIVE STANDARD PROJECT REQUIREMENTS

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE would meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE would also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
CAL FIRE is the project proponent for this project. Discussions related to natural and environmental resource protections measures, SPRs and mitigation measures, and identifying sensitive resources onsite will be maintained with contractors and the Landowner throughout the duration of the proposed project. *CAL FIRE will be developing and implementing a burn plan/smoke management plan prior to prescribed burn treatment operations.*			
SPR AD-2 Delineate Protected Resources: The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly-visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. "Protected Resources" refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester or biologist). This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
CAL FIRE and Auten Resource Consulting have clearly defined the project boundaries and treatment areas on maps (Attachment B) and will have delineated protected resources on the ground with highly-visible flagging prior to beginning any treatment operations. *The implementation of this SPR will minimize the risk of an impact to sensitive resources resulting from operations.*			
SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent would design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE

This SPR will be implemented to reduce the risk of inconsistencies with local plans, policies, and ordinances.			
SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent would: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information would be provided with the notice) if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Prescribed fire signs will be placed within the project area at least three days prior to burn activities. *A notification will be published through a widely distributed media source containing applicable treatment information.* *County Supervisors will be notified as required in SPR AD-4.*			
SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE During	CAL FIRE
Contractor compliance with this SPR will maintain the natural landscape within the project area and minimize impacts to wildlife as a result of human generated trash.			
SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent would post signs in a conspicuous location near the treatment area describing the activity and timing and requesting persons in the area to contact a designated representative of the project proponent (contact information would be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.	Yes	CAL FIRE Prior-During	CAL FIRE
The project will occur on private property that maintains permissive public access to San Simeon Point by way of the Landowner. Public access at San Simeon Point will be suspended during treatment operations and notifications shall be located in a location visible to local residents that may be impacted by traffic in the area. Public access to Pico Creek is prohibited without prior consent from the Landowner.			

SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE Prior-During-Post	CAL FIRE
Information will be provided on proposed, approved, and completed treatment project pursuant to this SPR.			
SPR AD-8 Request Access for Post-Treatment Assessment. For CAL FIRE projects, during contract development, CAL FIRE would include access to the treated area over a prescribed period (usually up to three years) to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance, as a contract term for consideration by the landowner. For public landowners, access to the treated area over a prescribed period would be a requirement of the executed contract. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE Prior-During	CAL FIRE
Terms of post-treatment assessment access will be established at the discretion of the Landowner and CAL FIRE, per an RM-75 agreement, prior to treatment operations.			
SPR AD-9. Obtain a Coastal Development Permit for Proposed Treatment Within the Coastal Zone Where Required. When planning a treatment project within the Coastal Zone, the project proponent would contact the local Coastal Commission district office, or applicable local government to determine if the project area is within the jurisdiction of the Coastal Commission, a local government with a certified Local Coastal Program (LCP), or both. This SPR applies to all treatment activities and all treatment types.	Yes	CAL FIRE Prior	CAL FIRE
Initial contact and ongoing communication with the California Coastal Commission (CCC) is included as part of this PSA due to the proposed project boundaries existing within the coastal zone. Previous regional developments between the CCC and Upper Salinas-Las Tablas Resource Conservation District (US-LT RCD) achieved approval of a Public Works Plan in 2021 that establishes a set of standards for CalVTP projects occurring within the coastal zone and US-LT RCD's jurisdictional boundary in San Luis Obispo County. A Coastal Vegetation Treatment Standards (Coastal VTS) document has been prepared for this project and is included in Attachment D.			

EC-18: MANDATORY FINDINGS OF SIGNIFICANCE

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

Discussion

No additional comments.

Additional information:

☒ List of Standard Project Requirements (SPRs) and Mitigations Measures (MMs). (See Attachment A)

☒ Vicinity map on a USGS quad map (SPR AD-2)

- ☒ Aerial imagery of subsequent activity area
- ☐ Subsequent activity location on Treatable Landscape & Ecoregions Map (See Attachment B)
- ☐ Parcel map with APN's covering all ownerships within subsequent activity area
- ☐ Soil survey map of subsequent activity area

☐ Smoke Management Plan/Burn Plan (SPR AQ-2 & 3)

- ☐ Public Notice for Prescribed Burning
- ☐ Model run of FOFEM, BEHAVE, or other appropriate fire behavior modeling simulation
- ☐ Burn Unit Maps – Ortho and Topographic

☐ Air District Asbestos Dust Control Plan (SPR AQ-5)

☐ Incident Action Plan (IAP) (SPR AQ-6)

☐ Archaeological reviews/surveys (Confidential addendum) (EC-4)

☒ Biological review/surveys (EC-5)

- ☒ CNDDB Records Search
- ☒ Biologist Consultation/Notification
- ☒ Water Quality consultation
- ☐ Consult Attachment E (and Cal VTP Appendix BIO-3)

☐ Biological Compensation Plan (MM BIO-1c, 2c, 2d, 2e, 2f, 3b, 3c,)

☐ Geological Review (MM GHG-2)

☐ Spill Prevention & Response Plan (SPR HAZ-5)

☐ Traffic Management Plan (SPR TRAN-1)

☐ Organic waste Disposal Plan (SPR UTIL-1)

☐ Air Quality and GHG Emissions Estimates (SPR GHG-1)

- ☐ Air Quality consultations

☐ Off-Site Noise-Sensitive Receptors Notification (SPR NOI-6)

☐ Other _____

DELIVERABLES POST APPROVAL

☒ Public Notification (News/Press Release)
☒ Authorized PFIRS Ignition Request

☒ Live Fire Notification
☒ Approved FC 400
☒ Public Notifications to neighbors
☒ Weather Forecasts/Spot weather Forecasts
☒ Go NO Go Checklist
☒ Incident Action Plans (IAP's, Prescribed burn activities)
☒ Completion Reports to Region
☒ Other: FC 33, Project Photos

ATTACHMENT A: STANDARD PROJECT REQUIREMENTS (SPRs) AND MITIGATION MEASURES (MMs)

EC-1: Aesthetics and Visual Resource Standard Project Requirements

- **SPR AES-1 Vegetation Thinning and Edge Feathering:** The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.
- **SPR AES-2 Avoid Staging within Viewsheds:** The project proponent will store all treatment-related materials, including vehicles, vegetation treatment debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project proponent will also locate materials staging and storage areas outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR AES-3 Provide Vegetation Screening:** The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

EC-2: Agriculture and Forest Resources

- **NONE**

EC-3: Air Quality Standard Project Requirements

- **SPR AQ-1 Comply with Air Quality Regulations:** The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.
- **SPR AQ-2 Submit Smoke Management Plan:** The project proponent will submit a smoke management plan for all prescribed burns to the applicable air district, in accordance with 17 CCR Section 80160. Pursuant to this regulation a smoke management plan will not be required for burns less than 10 acres that also will not be conducted near smoke sensitive areas, unless otherwise directed by the air district. Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. Example of a smoke management plan is in Appendix PD-2. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.

- **SPR AQ-3 Create Burn Plan:** The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating. The project proponent will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.
- **SPR AQ-4 Minimize Dust:** To minimize dust during treatment activities, the project proponent will implement the following measures:
    - Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol.
    - If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations.
    - Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113.
    - Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may “cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property,” per Health and Safety Code Section 41700.

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

- **SPR AQ-5 Avoid Naturally Occurring Asbestos:** The project proponent will avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per maps and guidance published by the California Geological Survey, unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area. Any NOA-related guidance provided by the applicable air district will be followed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR AQ-6: Prescribed Burn Safety Procedures:** 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.
- **MM AQ-1 Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques:** Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not be feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible.

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

  - Diesel-powered off-road equipment used in construction will meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment.
  - Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria:

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

o Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment.

o Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes.

o Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NOX and PM.

EC-4: Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements

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

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

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

- **SPR CUL-1 Conduct Record Search:** An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR CUL-2 Contact Geographically Affiliated Native American Tribes:** The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, the project

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

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

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

- **SPR CUL-3 Pre-field Research:** The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR CUL-4 Archaeological Surveys:** The project proponent will coordinate with an archaeologically-trained resource professional and/or qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological or historical resources near or within the treatment area. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR CUL-5 Treatment of Archaeological Resources:** If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. The project proponent, in consultation with culturally affiliated tribe(s), will develop effective protection measures for

important cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, enforceable language, and will be included in the survey report in accordance with applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

- **SPR CUL-6 Treatment of Tribal Cultural Resources:** The project proponent, in consultation with the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. The project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. The project proponent will defer implementing the treatment until the tribe approves protection measures, or if agreement cannot be reached after a good-faith effort, the proponent determines that any or all feasible measures have been implemented, where feasible, and the resource is either avoided or protected. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR CUL-7 Avoid Built Historical Resources:** If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. Within a buffer of 100 feet of the built historical resource, there will be no prescribed burning or mechanical treatment activities Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a qualified archaeologist. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR CUL-8 Cultural Resource Training:** The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **MM CUL-2 Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources:** If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to

develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.

EC-5 Biological Resources Standard Project Requirements

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

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

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

Qualified RPF or Biological Technician: To be qualified, an RPF or biological technician would 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify

relevant species and habitats, 3) have experience conducting biological monitoring of relevant species or resources, and 4) be knowledgeable about state and federal laws regarding the protection of special-status species. The project proponent will review the resume and approve the qualifications of RPFs or biological technicians.

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

  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:

  - by physically avoiding the suitable habitat, or
  - 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.

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 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.

- **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.

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).
    - 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 common for the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species.
    - Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type

present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements.

- Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service).
- Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided.
- Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. This will consist of the minimum disturbance area necessary to reduce hazardous fuels and return the riparian community to a natural fire regime (i.e., Condition Class 1) considering historic fire return intervals, climate change, and land use constraints.
- Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry.
- The project proponent will notify CDFW 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 proponent will demonstrate with substantial evidence that the habitat function of chaparral and coastal sage scrub would be at least maintained within the identified spatial scale at which type conversion is evaluated for the specific treatment project. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, spatial needs of sensitive species, presence of sufficient seed plants and nurse plants, light availability, and edge effects may inform the determination of an appropriate spatial scale.
  - The treatment design will maintain a minimum percent cover of mature native shrubs within the treatment area to maintain habitat function; the appropriate percent cover will be identified by the project proponent in the development of treatment design and be specific to the vegetation alliances that are present in the identified spatial scale used to evaluate type conversion. Mature native shrubs that are retained will be distributed contiguously or in patches within the stand. If the stand consists of multiple age classes,

patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity, to the extent needed to avoid type conversion.

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

Additional measures will be applied to ecological restoration treatment types:

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

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

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

- **SPR BIO-6 Prevent Spread of Plant Pathogens:** When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement the following best

management practices to prevent the spread of *Phytophthora* 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 *Phytophthora* 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 *Phytophthoras* in Native Habitats 2016).

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

- **SPR BIO-8 Identify and Minimize Impacts in Coastal Zone ESHAs:** When planning a treatment project within the Coastal Zone, the project proponent will, in consultation with the Coastal Commission or a local government with a certified Local Coastal Program (LCP) (as applicable), identify the habitat types and species present to determine if the area qualifies as an Environmentally Sensitive Habitat Area (ESHA). If the area is an ESHA, the treatment project may be allowed pursuant to this PEIR, if it meets the following conditions. If a project requires a CDP by the Coastal Commission or a local government with a certified LCP (as applicable), the CDP approval may require modification to these conditions to further avoid and minimize impacts:
  - The treatment will be designed, in compliance with the Coastal Act or LCP if a site is within a certified LCP area, to protect the habitat function of the affected ESHA, protect habitat values, and prevent loss or type conversion of habitat and vegetation types that define the ESHA, or loss of special-status species that inhabit the ESHA.
  - Treatment actions will be limited to eradication or control of invasive plants, removal of uncharacteristic fuel loads (e.g., removing dead, diseased, 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 vegetation types present in the ESHA.

- A qualified biologist or RPF familiar with the ecology of the treatment area will monitor all treatment activities in ESHAs.
- Appropriate no-disturbance buffers will be developed in compliance with the Coastal Act or relevant LCP policies for treatment activities in the vicinity of ESHAs to avoid adverse direct and indirect effects to ESHAs.

This SPR applies to all treatment activities and all 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 mud snail):
  - 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 uninfected areas present within a reasonable proximity to the treatment area;
  - identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatment methods will be selected based on the invasive species present and may include herbicide application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused

on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles;

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

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

Project-Specific Requirements

- All 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 to resolve the 2006 case brought against the Environmental Protection Agency by the Center for Biological Diversity. For example, to comply with the injunction, only cut stump and basal bark applications will be allowed in California red-legged frog habitat under the following conditions: cut stump and basal bark applications may be used but will not be applied within 60 feet of breeding or non-breeding aquatic habitat.

Recommended Equipment Decontamination Procedures

In an effort to minimize the spread of pathogens that may be transferred as result of activities, surveyors should follow the guidance outlined below for disinfecting equipment and clothing after entering a pond and before entering a new pond, unless the wetlands are hydrologically connected to one another:

i. All organic matter should be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water or potentially contaminated sediments. Cleaned items should be rinsed with clean water before leaving each study site.

ii. Boots, nets, traps, hands, *etc*. should be scrubbed with either a 75% ethanol solution, a bleach solution (0.5 to 1.0 cup per 1.0 gallon of water), Quat-128™ (1:60), or a 6% sodium hypochlorite 3 solution. Equipment should be rinsed clean with water between study sites. Cleaning equipment in the immediate vicinity of a pond or wetland should be avoided (*e.g.,* clean in an area at least 100 feet from aquatic features). Care should be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.

iii. Used cleaning materials (liquids, *etc.*) should be disposed of safely, and if necessary, taken back to the lab for proper disposal. Used disposable gloves should be retained for safe disposal in sealed bags.

Additionally, the surveyors shall implement the following when working at sites with known or suspected disease problems: disposable gloves should be worn and changed between handling each animal. Gloves should be wetted with water from the site or distilled water prior to handling any amphibians. Gloves should be removed by turning inside out to minimize cross-contamination.

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 Requirements

  - Either surveys for monarch butterfly host plants will be performed prior to implementing treatment activities, or presence of host plants in suitable habitat will be assumed and Mitigation Measure BIO-2e will apply.
  - Either surveys for Crotch bumble bee, obscure bumblebee, and western bumble bee will be conducted prior to implementing treatment activities, or presence of these species in suitable habitat will be assumed and Mitigation Measure BIO-2g will apply.
  - To avoid impacts on special-status amphibians and reptiles (i.e., California red-legged frog, foothill yellow-legged frog, coast range newt, Northern California legless lizard, western pond turtle, two-striped gartersnake), focused surveys (i.e., visual, walk and turn surveys) will be conducted by a qualified RPF, or biologist, within habitat suitable for the species prior to mechanical and manual treatments.

- Either protocol level surveys following the *Revised Guidance on Site Assessments and Filed Surveys for California red-legged frog* (USFWS 2005) will be conducted within the project area, or presence of California red-legged frog will be assumed in potentially suitable habitat and Mitigation Measure BIO-2a will apply.
- For all treatment activities that occur during the nesting bird season (February 1–August 31) and to avoid impacts on golden eagle, grasshopper sparrow, northern harrier, etc., focused surveys (i.e., nest searches) for nests of these species will be conducted prior to implementing treatment activities during the nesting bird season.
- To avoid impacts on woodrats, reconnaissance for the species would be conducted within habitat suitable for the species prior to implementation of mechanical and manual treatments using power equipment.
- For all treatment activities that cannot be avoided during the bat maternity season and to avoid impacts on pallid bat and Townsend's big-eared bat, focused surveys for maternity roosts will be conducted prior to implementing treatment activities in suitable habitat during the bat maternity season (April 1–August 31).
- For all treatment activities that occur within the mule deer fawning season (May 1 – August 31), focused surveys for fawning sites will be conducted prior to implementing treatment activities.

- **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 identify 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 immediate 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 sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.
- **Modify Treatment.** The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment modifications will be determined by the project proponent in coordination with the qualified RPF or biologist.
- **Defer Treatment.** The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.

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

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

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

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

- **MM BIO-1a Avoid Loss of Special-Status Plants Listed under ESA or CESA:** If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway), exceptions to this requirement are listed later in this measure. The no-disturbance buffers will generally be a minimum of 50 feet from listed plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid killing or damaging listed plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate buffer size will be determined based on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. For example, paint-on or wicking application of herbicides to invasive plants may be implemented within 50 feet of listed plant species without posing a risk, especially if the listed plants are dormant at the time of application. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 50 feet from a listed plant, a qualified RPF or botanist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report) with a science-based justification for the deviation. No fire ignition (and associated use of accelerants) will occur within 50 feet of listed plants.

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

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

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

    - Physically avoid the area occupied by the special-status plants by establishing a no-disturbance buffer around the area occupied by species and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The no-disturbance buffers will generally be a minimum of 50 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damaging to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate size and shape of the buffer zone will be determined by a qualified RPF or botanist and will depend on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform an appropriate buffer size and shape.

    - Treatments may be conducted within this buffer if the potentially affected special-status plant species is a geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that

would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank.

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

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

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

- **MM BIO-2a Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species:** 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
    - 2. Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species.
- For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c.
- Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided.

Maintain Habitat Function

- The project proponent will design treatment activities to maintain the habitat function, by implementing the following:
    - While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris and amphibian refugia as a feature of upland dispersal habitat; food sources). These habitat features will be marked, and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science.
    - If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher,

riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained.

- A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If consultation determines that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c.

Project-Specific Requirements

California Red-Legged Frog

- If the presence of California red-legged frog within suitable habitat in the project area is assumed or if SPR BIO-10 surveys have detected California red-legged frog, CAL FIRE (project proponent) will implement the following measures:
- Pre-treatment surveys and biological monitoring. Pre-treatment visual surveys will be performed daily by a qualified RPF, biologist, or biological monitor, prior to implementation of any treatment activities (i.e., mechanical, manual, and herbicide) within 300 feet of Class I or Class II streams and within or adjacent to 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 and monitoring will be performed year-around prior to any activities within 30 feet of Class I or Class II streams and within or adjacent to other sensitive habitat areas (e.g., wet Class III streams, wet seeps). If a California red-legged frog is found during pre-treatment surveys or enters the project site during treatment activities, all work will stop within a non-disturbance buffer of 100 feet around the individual unless it is determined by the qualified RPF or biologist that a different sized buffer is appropriate to avoid disturbance, injury, or mortality. Treatment activities will cease within the buffer until the animal leaves on its own and the occurrence will be reported to the qualified biologist, and USFWS.
- 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, if habitat retention will meet the project goals.

- If operators need to move or treat large woody debris greater than 12 inches in diameter, that piece of woody debris will be evaluated for CRF by a qualified biologist, qualified professional, RPF, RPF supervised designee, or a contractor who has been through the environmental awareness training.
- All mechanized equipment including track chippers 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. Handwork may continue.
- No mechanized operations year around (including track chippers unless on an existing road) in a Watercourse and Lake Protection of a Class I or Class II watercourse or within 30 feet of a Class III or adjacent to other potential sensitive habitat areas (e.g., wet seeps). Only handwork may occur in these areas. If handwork is proposed, the area must be cleared by a qualified biologist no more than 7 days prior to operations.
- No heavy equipment shall be fueled within 65 feet of any watercourse.
- Piles created prior to prescribed pile burn operations shall be inspected prior to ignition for the presence of California red-legged frog by an individual trained in the identification of California red-legged frog. If found, a non-disturbance buffer of 100 feet will be implemented around the individual unless it is determined by a qualified RPF, biologist, or RPF supervised designee that a different sized buffer is appropriate to avoid injury or mortality. USFWS will be contacted.
- All 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 to resolve the 2006 case brought against the Environmental Protection Agency by the Center for Biological Diversity. For example, to comply with the injunction, only cut stump and basal bark applications will be allowed in California red-legged frog habitat under the following conditions.
- Cut stump and basal bark applications may be used but will not be applied within 60 feet of breeding or non-breeding aquatic habitat.

Foothill Yellow-Legged Frog

- In treatment areas within 200 feet of Class I and Class II watercourses, the habitat suitability for foothill yellow-legged frog will be assessed. If no suitable habitat for foothill yellow-legged frog is found within the treatment area, then no further actions are required. If suitable habitat is present within the treatment area daily inspections will be required.
- Daily inspection of the day's treatment area within suitable habitat will be performed by the qualified biologist, qualified RPF, or supervised trained designee. Prior to implementation of daily inspections, the qualified biologist will conduct training for other project staff (i.e., qualified RPF or supervised trained designee). The training will

include: identification of foothill-legged frog, procedures to follow for daily inspection of appropriate habitat features immediately before treatment occurs, and proper procedures to implement if a frog is present (e.g., establish a no-disturbance buffer zone of a size that will appropriately avoid foothill yellow-legged frog where treatment will not occur until the frog has left the area, halt activities if a foothill yellow-legged frog is observed during treatment, allow foothill yellow-legged frogs to move out of the treatment area on their own accord, notify CDFW if foothill yellow-legged frogs are observed).

Additional Special-Status Species that are not recorded or known to occur in the project area but have suitable habitat within or in proximity to the project area:

Golden Eagle

- If active golden eagle nests are found during SPR BIO-10 surveys, a no-disturbance nest buffer of 1.0 mile would be placed around active golden eagle nests, and no treatment activities would occur within this buffer until the chicks have fledged as determined by a qualified biologist or RPF. The buffer distance may be modified by a qualified RPF or biologist based on presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, and expected treatment activities.

Mountain lion

- To avoid mortality or injury to mountain lion the following will be implemented.
- Nursery habitat suitable for the species will be determined through desktop analyses (e.g., review of land cover, slope, distance from development), coordination with local experts studying or tracking the species (if available), and field surveys. Potential mountain lion dens will include caves, large natural cavities within rocky areas, or thickets deemed appropriate for use by mountain lions based on size and other characteristics (e.g., proximity to human development, surrounding habitat). The qualified wildlife biologist will survey for signs of mountain lion (e.g., tracks, scat, prey items such as a fresh kill) in the vicinity of potential nursery habitat to help determine whether the area may contain a mountain lion nursery. If nursery habitat is confirmed adjacent to (within 2,000 feet of) the treatment area, the following additional measures will be applied. If nursery habitat is not identified adjacent to the treatment area, no additional measures will be required.
- Within 7 days before commencement of treatment activities, a qualified RPF or wildlife biologist with familiarity with mountain lion and experience using survey methods for the species will conduct focused surveys in nursery habitat suitable for the species adjacent to (within 2,000 feet of) the treatment area to identify any potential mountain lion nurseries, as property access allows.

- Within 7 days prior to the start of mechanical treatments and manual treatments that use hand-operated power tools (e.g., chainsaws), a qualified RPF or biologist will inspect suitable nursery habitat in the part of the treatment area scheduled to be treated the following week for mountain lion or signs of mountain lion nurseries. If no mountain lion or sign of a nursery is observed, treatment activities may begin. If signs of a mountain lion nursery are observed, further investigation will be required to determine if a mountain lion nursery is present (see below).
- If signs of a mountain lion nursery are found during surveys, further investigation will be required to determine if a mountain lion nursery is present. No treatment will occur in the area while further investigation is occurring. Survey methods will include the use of trail cameras, track plates, hair snares, and/or other noninvasive methods, as well as coordination with local experts tracking the species (if available). Surveys using these noninvasive methods will be conducted for three days and three nights to determine whether a nursery may be present.

If a nursery is known to occur in the area or further signs of a nursery are detected based on the surveys described above (e.g., lactating adult females or cubs on camera, repeated detections of an adult female in the area, growls or calls from cubs), the project proponent will implement a no-disturbance buffer of at least 2,000 feet (Wilmers et al. 2013) for a minimum of 10 weeks. Treatment activities will not occur within this buffer during this time to avoid disturbance, injury, or mortality of mountain lion nurseries.

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

  <u>Avoid Mortality, Injury, or Disturbance of Individuals</u>

  - 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.

- Piles created prior to prescribed pile burn operations shall be inspected prior to ignition for the presence of California red-legged frog by an individual trained in the identification of California red-legged frog. If found, a non-disturbance buffer of 100 feet will be implemented around the individual unless it is determined by a qualified RPF, biologist, or RPF supervised designee that a different sized buffer is appropriate to avoid injury or mortality. USFWS will be contacted.

Maintain Habitat Function

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

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

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

be considered beneficial to non-listed special-status wildlife, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non-listed special-status species would benefit from the treatment.

Project-Specific Requirements

- It is very likely that other common native birds may be present within or in proximity to the treatment areas. If it is infeasible for operations to occur outside of the active nesting season of common native birds, including raptors, that may be present in the vicinity of the project site, then a survey will be conducted prior to operations (SPR BIO-12). Nesting bird surveys will be conducted no more than 7 days prior to the operations when treatments are proposed from February 1st to August 31st by adhering to the standards below:
  - (b): Nest tree(s), designated perch tree(s), screening tree(s), and replacement tree(s) shall be left standing and unharmed.
  - (c): Operations shall be planned and operated to commence as far as possible from occupied nest trees.
  - (d): When an occupied nest site of a listed bird species is discovered during operations, operations shall cease, and the nest tree shall be protected applying the provisions set forth in subsections (b) and (c) above and shall immediately notify CDFW and CAL FIRE.

Special-Status Amphibians and Reptiles

- If special-status amphibians and reptiles (i.e., California giant salamander, coast range newt, coast horned lizard, Northern California legless lizard, Santa Cruz black salamander, western pond turtle) are detected during SPR BIO-10 focused surveys, biological monitoring by a qualified biologist during mechanical and manual treatment activities within or adjacent to sensitive habitat areas will be implemented to avoid injury to or mortality of individual special-status amphibians and reptiles. If the qualified biologist detects a special-status amphibian or reptile during treatments, a non-disturbance buffer of 100 feet, or published agency distance, will be implemented around the individual unless it is determined by a qualified RPF, biologist, or RPF supervised designee that a different sized buffer is appropriate to avoid injury or mortality. Treatment activities will cease within the buffer until the animal 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 biologist.

Special-Status Birds

- If an active grasshopper sparrow, loggerhead shrike, long-eared owl, or purple martin nest is detected during SPR BIO-10 focused surveys, a no-disturbance buffer of at least 100 feet will be established around the nest, and no treatment activities will occur within this buffer until the chicks have fledged as determined by a qualified RPF or biologist. The buffer distance may be modified by a qualified RPF or biologist based on presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, and expected treatment activities. If purple martin nests are detected, the nesting tree or snag will be avoided and left intact by treatment activities.

Special-Status Bats

- If a special-status bat roost is detected during SPR BIO-10 focused surveys, a no-disturbance buffer of 250 feet will be established around the roost during the bat maternity season (April 1–August 31), 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. The buffer distance may be modified by a qualified RPF or biologist based on presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, and expected treatment activities.

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

of the habitat is not burned or removed and untreated portions of suitable habitat are retained.

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

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

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

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

Project-Specific Requirements

Monarch Butterfly

The Xerces Society for Invertebrate Conservation (Xerces Society) was consulted to provide technical assistance for this project. Xerces Society will be included in ongoing treatment design in

monarch habitat to ensure maintenance of existing habitat function and retention of existing nectar sources. See *Attachment F* for a full monarch management recommendations report and smoke mitigation guidance.

- Core Zone Guidance by Management Activity
    - All vegetation management work in the core zone should be suspended when monarch clusters are present during the overwintering season (~October 1- February 28th).
    - A monarch specialist or qualified biologist should survey the area and confirm monarch cluster absence if work within the core zone is absolutely necessary during the overwintering season (~October 1- February 28th).
    - Trees that have been used for clustering should be marked in advance of work with tree tags or flagging to ensure hand crews and personnel do not trim, cut, or damage them. Table 1 provides coordinates of cluster trees.
    - Tree thinning and removal of standing trees of any diameter possessing living foliage is not advised within in the core zone unless a tree is identified as an imminent hazard to property or life or is dead or dying and may fall into other cluster trees causing damage. Trees being considered for removal under these guidelines should be evaluated and agreed upon by both a registered professional forester or certified arborist on the imminent threat and a monarch specialist or qualified biologist for critical habitat protection before project work commences.
    - Pile and broadcast burning can be conducted, if necessary, outside of overwintering season (March - September), but should not occur directly under known cluster trees, as monarch clusters break up or drop to the ground when exposed to heavy smoke (Brower and Malcolm, 1991).
    - Removal of downed trees, through bucking, lop and scatter, and other mechanical methods to reduce fuel load is encouraged outside of the overwintering season.
    - Control and removal of invasive species such as French broom are also encouraged outside of the overwintering season.
    - Tree trimming and reduction of ladder fuels such as branches can be conducted within the core zone outside of the overwintering season but retain branches and foliage > ~10ft off the ground. Up to date flagging of important core trees will help to prevent accidental damage.
    - Overwintering surveys should be conducted by a monarch specialist or a qualified biologist prior to any year operations are proposed to determine if the location of core zones should change. In addition, surveys should be conducted every fall and/or winter during the project period.
    - Core cluster zones can be adjusted as needed under the guidance of a monarch specialist or qualified biologist.

- **Shelter Zone Guidance by Management Activity**

- Control and removal of invasive species such as French broom is encouraged.
- Removal of dead and dying trees, succumbing to pathogens and removal of other ladder fuels using hand crews and mechanical techniques is encouraged. However, see below recommendations on use of heavy machinery and thinning of living trees.
- Select herbicide application to control invasive forbs/shrubs implemented as described in the proposal and following state and federal guidelines should pose a low risk to monarchs outside of the overwintering period (~October 1-February 28th).
- Thinning through the removal of small diameter live trees (up to 8" diameter) and understory vegetation in the shelter zone is acceptable, with the following guidance. A portion of existing small diameter eucalyptus should be retained in order to maintain a diversity of age classes within the grove. This will provide redundancy of wind and other protections in the grove in case other large gaps may form due to age or storm damage in future seasons.
- Use of heavy machinery should be minimized where feasible and not be harmful to the integrity of the overwintering site as a whole. However, its use should be avoided within a 100 ft radius from the core zone when clustering monarchs are present during the overwintering season (October 1- February 28th). This 100ft Buffer zone is shown as a dashed orange line on the provided map (*Attachment F*, Figure 4).
- Prescribed pile and broadcast burning to further remove additional understory and dead, dying and diseased trees is recommended, as needed. Burning should be avoided if possible in and around the shelter zone during the overwintering season (October 1- February 28th). If burns must be conducted during the overwintering season, they should be completed following a specific smoke mitigation protocol included in the burn plan for this project; see attached for an example from California State Parks San Luis Obispo Coast District.

- **Native Nectar Plant Recommendations**
  - Given the scope of the project, there is opportunity to proactively restore some of these sites through strategic planting of nectar resources. During and immediately after this project, nectar resources may be reduced. Planting or allowing for resprouting of specific native nectar resources could directly enhance the habitat for monarchs and other pollinators. The following plants are recommended for open areas within and around the overwintering sites if time and resources allow it. Botanical surveys conducted prior to treatments will survey for these species and flag them appropriately for retention:

    - Wax myrtle (*Morella californica*)
    - Toyon (*Heteromeles arbutifolia*)
    - Coffee Berry (*Frangula californica*)

- Seaside Fleabane (*Erigeron glaucus*)
- Coyote Bush (*Baccharis pilularis*)
- Sage spp. such as Black or Hummingbird sage
- Mule fat (*Baccharis salicifolia*)
- Local Manzanita spp.
- Ericameria spp such as Rabbitbrush, Goldenbush, & Mock Heather

Some of the plants listed above are already present within the project area that can resprout from root crowns, such as Coyote Bush and Coffee Berry. For these plants, we recommend leaving some roots intact by selectively avoiding mechanical techniques that destroy the root crowns in subsections of the project area, if this does not significantly detract from the overall objectives of the project.

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

  - Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season.
  - Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.
  - Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area).
  - Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September).

  CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines

that mortality, injury, or disturbance of listed bumble bees (in the event the Candidate listing is confirmed) or degradation of occupied (or assumed to be occupied) habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c.

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

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

- **MM BIO-5 Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites:** The project proponent will implement the following measures while working in treatment areas that contain nursery sites identified in surveys conducted pursuant to SPR BIO-10:
  - Retain Known Nursery Sites. A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment.
  - Establish Avoidance Buffers. The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and after treatment activities will be required. If treatment activities cause agitated behavior of the individual(s), the buffer

distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to special-status species.

Project-Specific Requirements

Cormorant Rookery Site – San Simeon Point

- *If operations are proposed between February 1 and August 31:*
- *A qualified professional or RPF will perform a cursory/visual search of the project area for nesting birds prior to operations.*

  If an active nest is identified, a protection buffer of 200 feet will be established. USFWS/CDFW will be contacted if the nest is determined to be that of a special-status bird species or raptor.
- *A qualified RPF, biologist, or biological technician will monitor the active cormorant rookery during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely. If breeding cormorants are showing signs of nest disturbance, additional avoidance strategies (increase buffer, modify treatment or defer treatment) will be implemented.*
- *No treatment activities will occur within 100 feet of the rookery during the non-nesting season, except to relocate dead downed vegetation outside of the buffer for further disposal.*

EC-6: Geology, Soils, Paleontology, and Mineral Resources

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

  Project-Specific Requirements

  - The project proponent will suspend mechanized operations to prevent treatment activity from occurring during heavy precipitation if the National Weather Service forecast is a "chance" (30 percent or more averaged over each hour) of rain within the next 12 hours where mechanized operations are proposed from 6:00 am – 6:00 pm for that day's operation.

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

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

the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical prescribed herbivory, and prescribed burns that result in exposure of bare soil over 50 percent of the project area treatment activities and all treatment types, including treatment maintenance.

- **SPR GEO-4 Erosion Monitoring:** The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. If erosion control measures are not properly implemented, they will be remediated prior to the first rainfall event per SPR GEO-3 and GEO-8. Additionally, the project proponent will inspect for evidence of erosion after the first large storm or rainfall event (i.e., ≥ 1.5 inches in 24 hours) as soon as is feasible after the event. Any area of erosion that will result in substantial sediment discharge will be remediated within 48 hours per the methods stated in SPRs GEO-3 and GEO-8. This SPR applies only to mechanical, prescribed herbivory, and prescribed burning treatment activities and all treatment types, including treatment maintenance.
- **SPR GEO-5 Drain Stormwater via Water Breaks:** The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6l of the California Forest Practice Rules (February 2019 version). Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface run-off to be concentrated on downslopes, other erosion controls will be installed as needed to maintain site productivity by minimizing soil loss. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.
- **SPR GEO-6 Minimize Burn Pile Size:** The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. In addition, burn piles will not occupy more than 15 percent of the total treatment area (Busse et al. 2014). The project proponent will not locate burn piles in a Watercourse and Lake Protection Zone as defined in SPR HYD-4. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.
- **SPR GEO-7 Minimize Erosion, Slope Restrictions for Heavy Equipment and Tractor Roads:** To minimize erosion, the project proponent will:
    - 1. Prohibit use of heavy equipment where any of the following conditions are present:
        - Slopes steeper than 65 percent.
        - Slopes steeper than 50 percent where the erosion hazard rating is high or extreme.
        - 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:
        - Existing tractor roads that do not require reconstruction, or

- 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.

EC-7: Greenhouse Gas Emissions Standard Project Requirements

- **SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process:** The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity, including treatment maintenance.

- **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 2018):

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

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

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

  <u>Significance after Mitigation</u>

  Implementation of Mitigation Measure GHG-2 would require project proponents conducting prescribed burns to implement GHG emission reduction techniques, as

feasible. Given the potential infeasibility of implementing specific emission reduction techniques and the uncertainties associated with all the parameters and objectives of prescribed burning, it is not feasible to precisely quantify the GHG reductions that would be achieved by implementation of Mitigation Measure GHG-2 in this programmatic evaluation. For instance, these measures may not always be feasible when the objective of the burn is to consume coarse woody debris in areas of high tree mortality. Also, the feasibility of conducting mosaic burning can depend on the size of a burn, and mosaic burning may not meet the objectives of CAL FIRE or the landowner. Moreover, burning fuels with a higher fuel moisture content can generate more smoke and result in less consumption, potentially reducing the longevity or effectiveness of a prescribed burn treatment. Thus, acknowledging the need for a balance between achieving treatment rate objectives and minimizing immediate GHG or smoke impacts, the levels of GHGs emitted by prescribed burns could still be considerable. Implementation of Mitigation Measure GHG-2 would support the development and implementation of refined treatment strategies in compliance with the California 2030 Natural and Working Lands Climate Change Implementation Plan to heighten the GHG benefit of this plan. With the continued evolution of the body of scientific knowledge about the long-term carbon sequestration effects of vegetation treatments and application of research-backed guidance to treatment implementation, the likelihood of net GHG benefits would be reasonably expected to grow over time. Other measures could include the purchase and retirement of carbon credits to offset the one-time GHG emissions directly associated with treatment activity; however, this approach would consume financial resources needed to achieve the wildfire risk reduction objectives of the proposed CalVTP, so offset purchase could detract from and would not contribute to feasibly meeting the key objective of increasing the pace and scale of treated acreage.

Similar to the reasons for the pre-mitigation significance determination, to meet CEQA's mandate of good faith disclosure and acknowledge potential future impacts in light of uncertainties, this PEIR classifies this GHG impact as **potentially significant and unavoidable** after implementation of mitigation. Even though the long-term outcome may yet become beneficial, the "potentially significant and unavoidable" determination alerts the public to the potential that net positive emissions may persist over time.

EC-8: Energy Resources

- **NONE**

EC-9: Hazardous Materials, Public Health and Safety Standard Project Requirements

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

- **SPR HAZ-2 Require Spark Arrestors:** The project proponent will require mechanized hand tools to have federal or state-approved spark arrestors. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.
- **SPR HAZ-3 Require Fire Extinguishers:** The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.
- **SPR HAZ-4 Prohibit Smoking in Vegetated Areas:** The project proponent will require that smoking be only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4). This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR HAZ-5 Spill Prevention and Response Plan:** The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to Ascent Environmental Program Description Board of Forestry and Fire Protection December 2019 Final Program EIR for the California Vegetation Treatment Program 2-49 provide protection to onsite workers, the public, and the environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. The SPRP will include (but not be limited to):

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

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

    - Be implemented consistent with recommendations prepared annually by a licensed PCA.
    - Comply with all appropriate laws and regulations pertaining to the use of pesticides and safety standards for employees and the public, as governed by the EPA, DPR, and applicable local jurisdictions.

- Adhere to label directions for application rates and methods, storage, transportation, mixing, container disposal, and weather limitations to application such as wind speed, humidity, temperature, and precipitation.
- Be applied by an applicator appropriately licensed by the State.

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

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

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

- **SPR HAZ-8 Minimize Herbicide Drift to Public Areas:** The project proponent will employ the following herbicide application parameters during herbicide application to minimize drift into public areas:
  - application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative);
  - spray nozzles will be configured to produce the largest appropriate droplet size to minimize drift;
  - low nozzle pressures (30-70 pounds per square inch) will be utilized to minimize drift; and ϒ spray nozzles will be kept within 24 inches of vegetation during spraying.

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

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

telephone number. Signs will be posted prior to the start of treatment and notification will remain in place for at least 72 hours after treatment ceases. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.

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

EC-10: Hydrology and Water Quality Standard Project Requirements

- **SPR HYD-1 Comply with Water Quality Regulations:** Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

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

- **SPR HYD-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 (2022 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.

Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures[1]

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.	
Water Class	Class I		Class II		Class III		Class IV	
Slope Class (%)	Width Feet	Protection Measure	Width Feet	Protection Measure	Width Feet	Protection Measure	Width Feet	Protection Measure
					[see 916.4(c)] [see 936.4(c)] [see 956.4(c)]		[see 916.4(c)] [see 936.4(c)] [see 956.4(c)]	
<30	75	BDG	50	BEI	See CFH		See CFI	
30-50	100	BDG	75	BEI	See CFH		See CFI	
>50	150[2]	ADG	100[3]	BEI	See CFH		See CFI	

1 - See Section 916.5(e) for letter designations application to this table.
2 – Subtract 50 feet width for cable Yarding operations.
3 – Subtract 25 feet width for cable Yarding operations.

The following WLPZ protections will be applied for all treatments:

- Treatment activities with WLPZs will retain at least 75 percent surface cover and undisturbed area to act as a filter strip for raindrop energy dissipation and for wildlife habitat. If this percentage is reduced, a qualified RPF will provide the project proponent

with a site- and/or treatment activity-specific explanation for the percent surface cover reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced percent as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). This requirement is based on 14 CCR Section 916.4 [936.4, 956.4] Subsection (b)(6) (February 2019 version) and 14 CCR Section 916.5 (February 2019 version).

- Equipment, including tractors and vehicles, must not be driven in wet areas or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry.
- Equipment used in vegetation removal operations will not be serviced in WLPZs, within wet meadows or other wet areas, or in locations that would allow grease, oil, or fuel to pass into lakes, watercourses, or wet areas.
- WLPZs will be kept free of slash, debris, and other material that harm the beneficial uses of water. Accidental deposits will be removed immediately.
- Burn piles will be located outside of WLPZs.
- No fire ignition (nor use of associated accelerants) will occur within WLPZs however low intensity backing fires may be allowed to enter or spread into WLPZs.
- Within Class I and Class II WLPZs, locations where project operations expose a continuous area of mineral soil 800 square feet or larger shall be treated for reduction of soil loss. Treatment shall occur prior to October 15th and disturbances that are created after October 15th shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies and may include but are not limited to mulching, rip-rap, grass seeding, or chemical soil stabilizers.

  Where mineral soil has been exposed by project operations on approaches to watercourse crossings of Class I, II, or III within a WLPZ, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse.

  Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.

- Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water.

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

- **SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides:** The project proponent will implement the following measures when applying herbicides:
    - Locate herbicide mixing sites in areas devoid of vegetation and where there is no potential of a spill reaching non-target vegetation or a waterway.
    - Use only herbicides labeled for use in aquatic environments when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides will be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry.
    - No terrestrial or aquatic herbicides will be applied within WLPZs of Class I and II watercourses, if feasible. If this is not feasible, hand application of herbicides labeled for use in aquatic environments may be used within the WLPZ provided that the project proponent notifies the applicable regional water quality control board no fewer than 15 days prior to herbicide application. The feasibility of avoiding herbicide application within WLPZ of Class I and II watercourses will be determined by the project proponent and may be based on whether doing so will preclude achieving CalVTP program objectives, including, but not limited to, protection of vulnerable communities. The reasons for infeasibility will be documented in the PSA.
    - No herbicides will be applied within a 50-foot buffer of ESA or CESA listed plant species or within 50 feet of dry vernal pools.
    - For spray applications in and adjacent to habitats suitable for special-status species, use herbicides containing dye (registered for aquatic use by DPR, if warranted) to prevent overspray.
    - Application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative);
    - No herbicide will be applied during precipitation events or if precipitation is forecast 24 hours before or after project activities.

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

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

EC-11: Land Use and Planning, Population and Housing

- **NONE**

EC-12: Noise Standard Project Requirements

- **SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours:** The project proponent will require that operation of heavy equipment associated with treatment activities (heavy off-road equipment, tools, and delivery of equipment and materials) will occur during daytime hours if such noise would be audible to receptors (e.g., residential land uses, schools, hospitals, places of worship). Cities and counties in the treatable landscape typically restrict construction-noise (which would apply to vegetation treatment noise) to particular daytime hours. If the project proponent is subject to local noise ordinance, it will adhere to those to the extent the project is subject to them. If the applicable jurisdiction does not have a noise ordinance or policy restricting the time-of-day when noise-generating activity can occur noise-generating vegetation treatment activity will be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday and federal holidays. If the project proponent is not subject to local ordinances (e.g., CAL FIRE), it will adhere to the restrictions stated above or may elect to adhere to the restrictions identified by the local ordinance encompassing the treatment area. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR NOI-2 Equipment Maintenance:** The project proponent will require that all powered treatment equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.
- **SPR NOI-3 Engine Shroud Closure:** The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.
- **SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses:** The project proponent will locate treatment activities, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.
- **SPR NOI-5 Restrict Equipment Idle Time:** The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.
- **SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors:** For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the

treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.

EC-13: Recreation Standard Project Requirements

- **NONE**

EC-14: Transportation Standard Project Requirements

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

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

EC-15: Public Services, utilities, and Service Systems Standard Project Requirements

- **NONE**

EC-16: Wildfire

- **NONE**

EC-17: Administrative Standard Project Requirements

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

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

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

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

- **SPR AD-6 Public Notification for Treatment Projects:** One to three days prior to the commencement of a treatment activity, the project proponent will post signs in a conspicuous location near the treatment area describing the activity and timing and requesting persons in the area to contact a designated representative of the project proponent (contact information

will be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.

- **SPR AD-7 Provide Information on Proposed, Approved, and Completed Projects:** For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism.

  Information on proposed projects (PSA in progress):

  - GIS data that include project location (as a point);
  - 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:

  - GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction)
  - A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes

    - Size of treated area (typically acres);
    - Treatment types and activities;
    - Dates of work;
    - A list of the SPRs and mitigation measures that were implemented

  - Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b).

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

- **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.

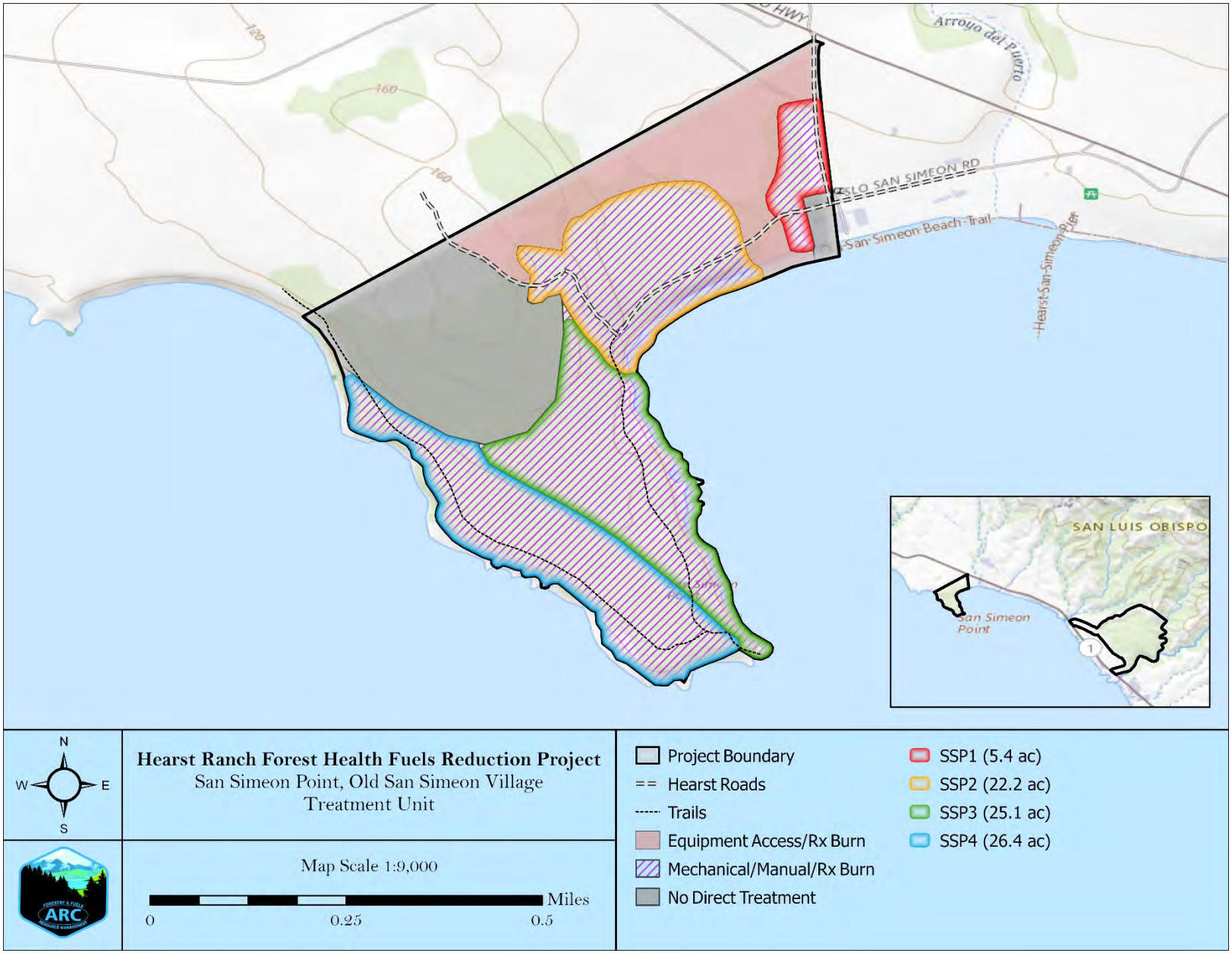
- **SPR AD-9 Obtain a Coastal Development Permit for Proposed Treatment Within the Coastal Zone Where Required:** When planning a treatment project within the Coastal Zone, the project proponent will contact the local Coastal Commission district office, or applicable local government to determine if the project area is within the jurisdiction of the Coastal Commission, a local government with a certified Local Coastal Program (LCP), or both. All treatment projects in the Coastal Zone will be reviewed by the local Coastal Commission district office or local government with a certified LCP (in consultation with the local Coastal Commission district office regarding whether a Coastal Development Permit (CDP) is required). If a CDP is required, the treatment project will be designed to meet the following conditions:

  - 1. The treatment project will be designed in compliance with applicable provisions of the Coastal Act that provide substantive performance standards for the protection of potentially affected coastal resources, if the treatment activity will occur within the original jurisdiction of the Commission or an area of a local coastal government without a certified LCP; and

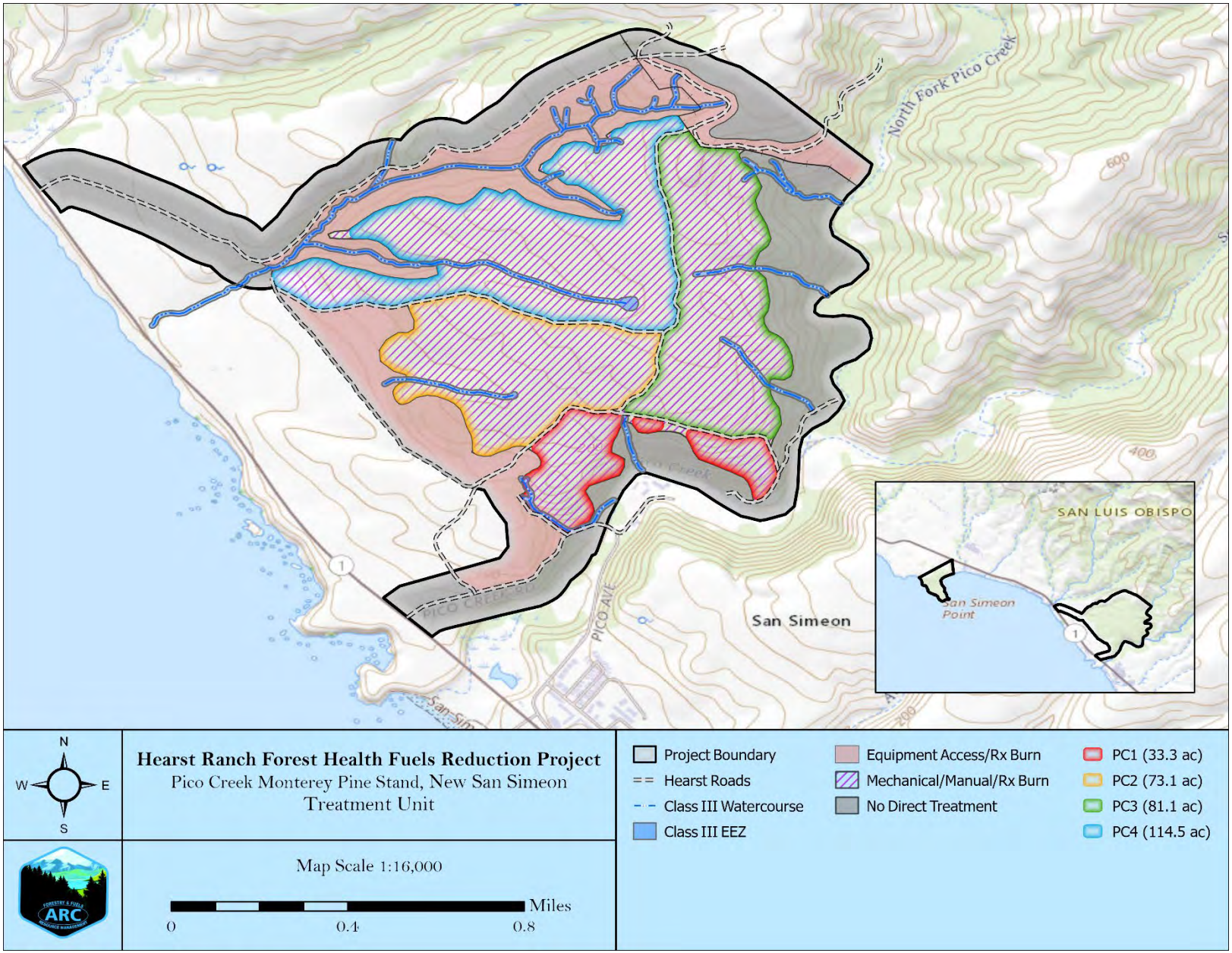
  - 2. The treatment project will be designed in compliance with the applicable provisions of the certified LCP, specifically the substantive performance standards for the protection of potentially affected coastal resources if the treatment activity will occur within the jurisdiction of a local coastal government with a certified LCP.

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

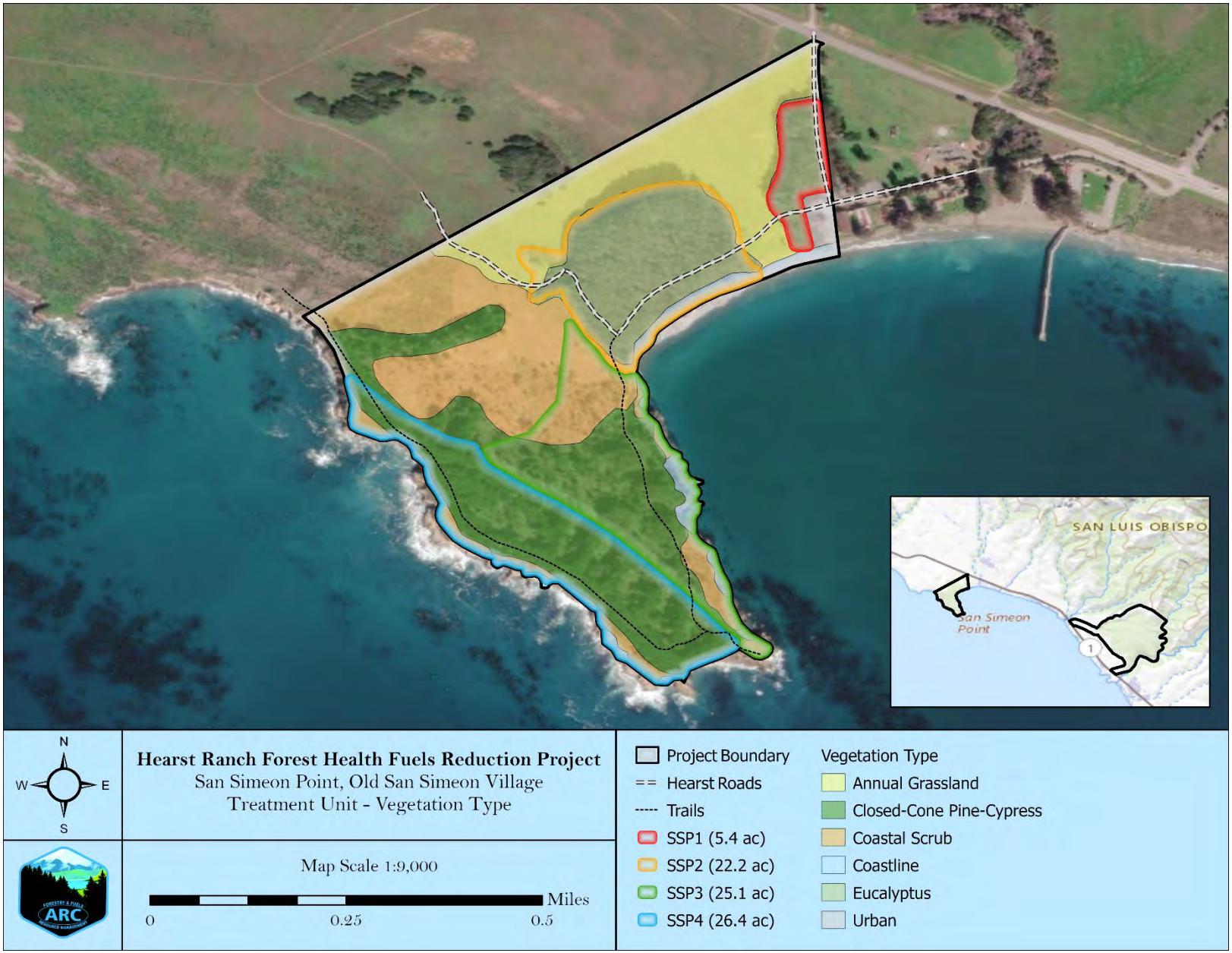
ATTACHMENT B: PROJECT MAPS



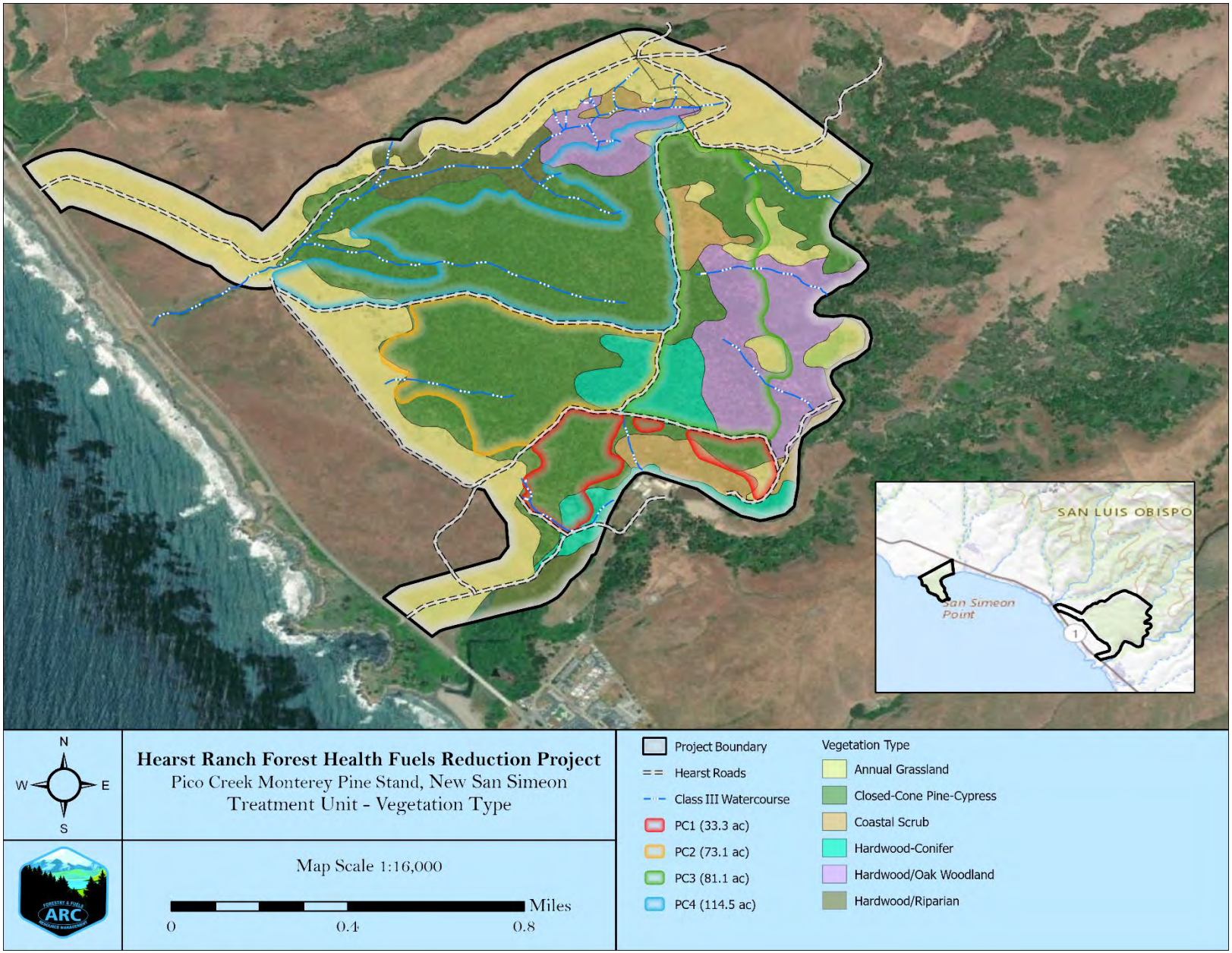
Map 1 San Simeon Point treatment units and treatment activity overlay; map not to scale



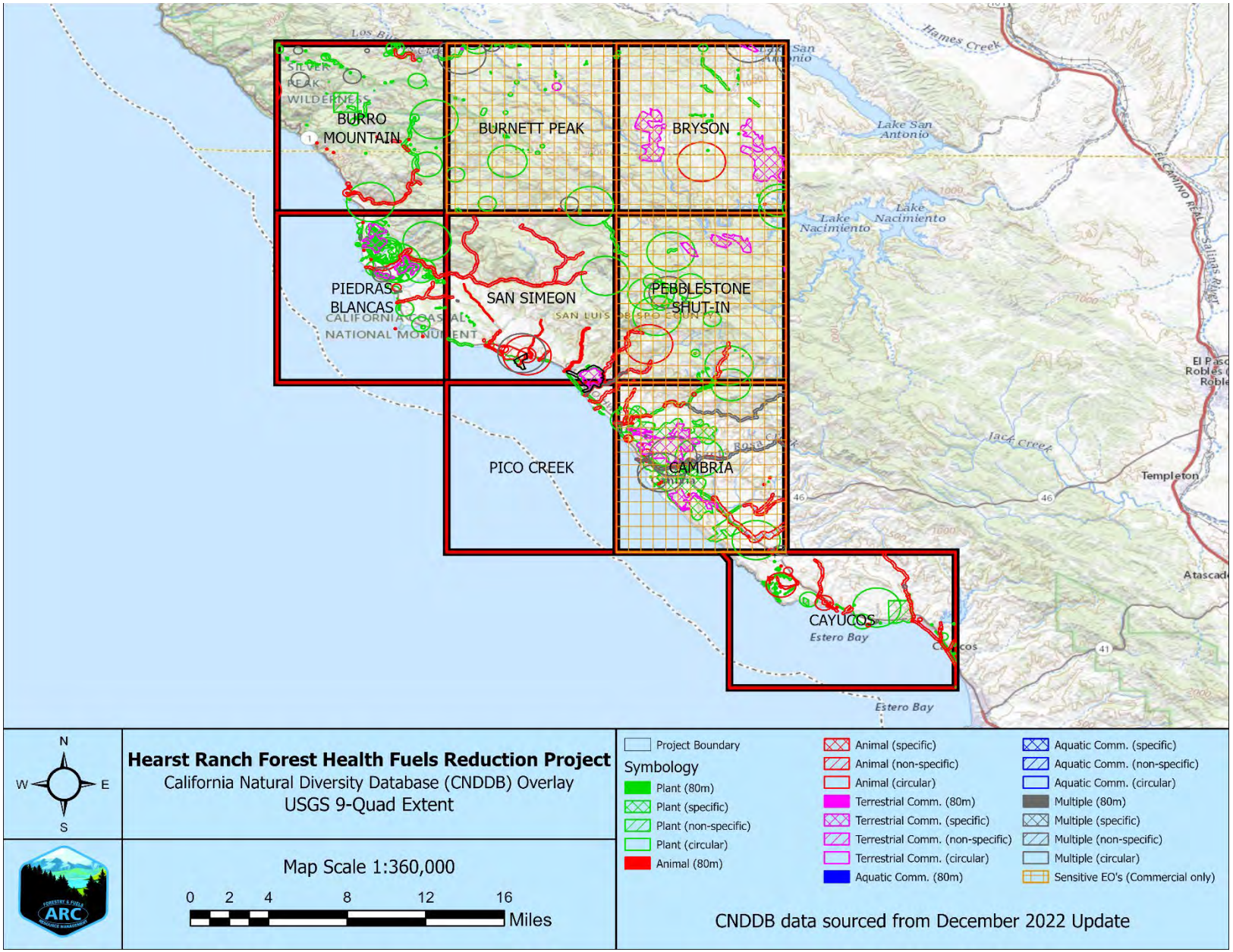
Map 2 Pico Creek Monterey Pine Stand treatment units and treatment activity overlay; map not to scale



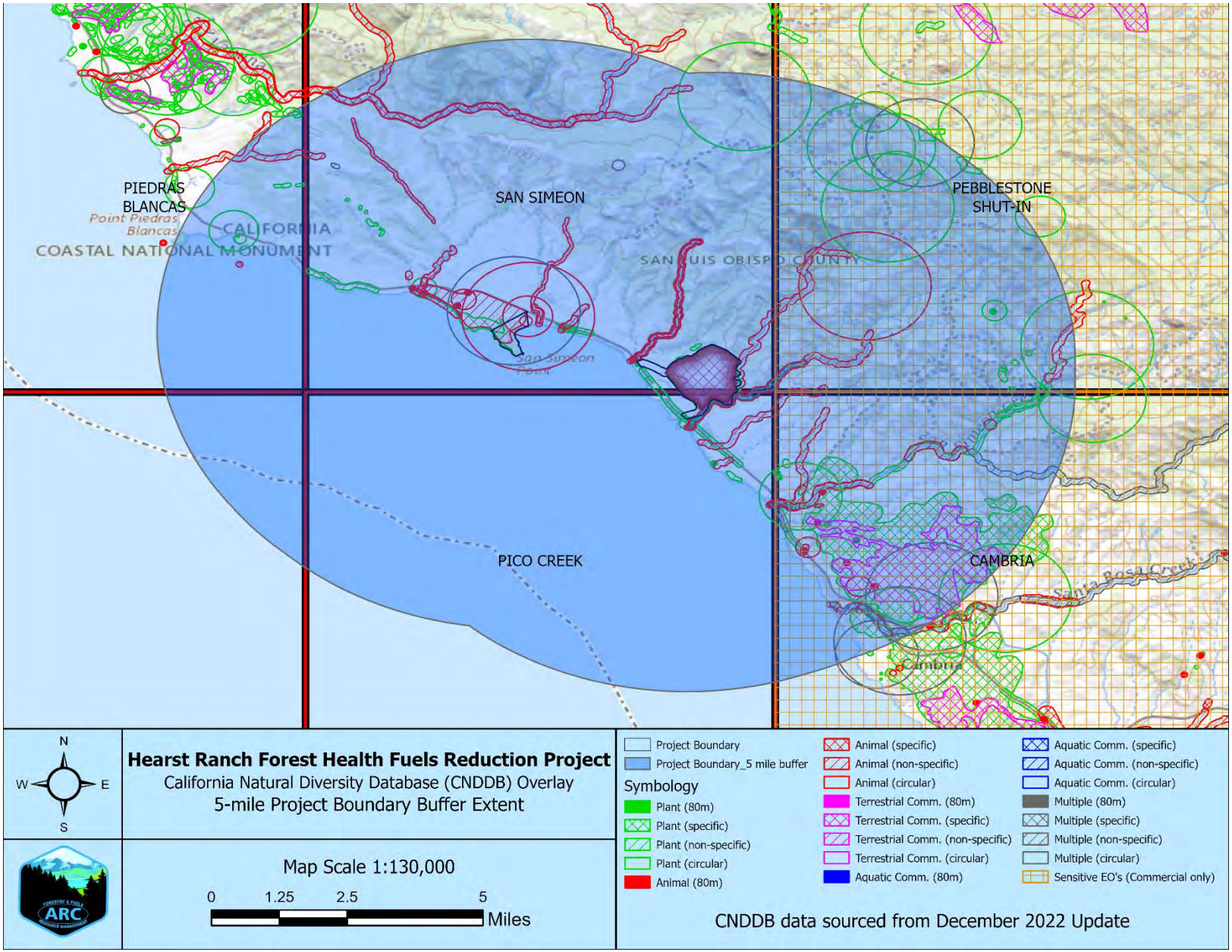
Map 3 San Simeon Point vegetation type and treatment unit overlay



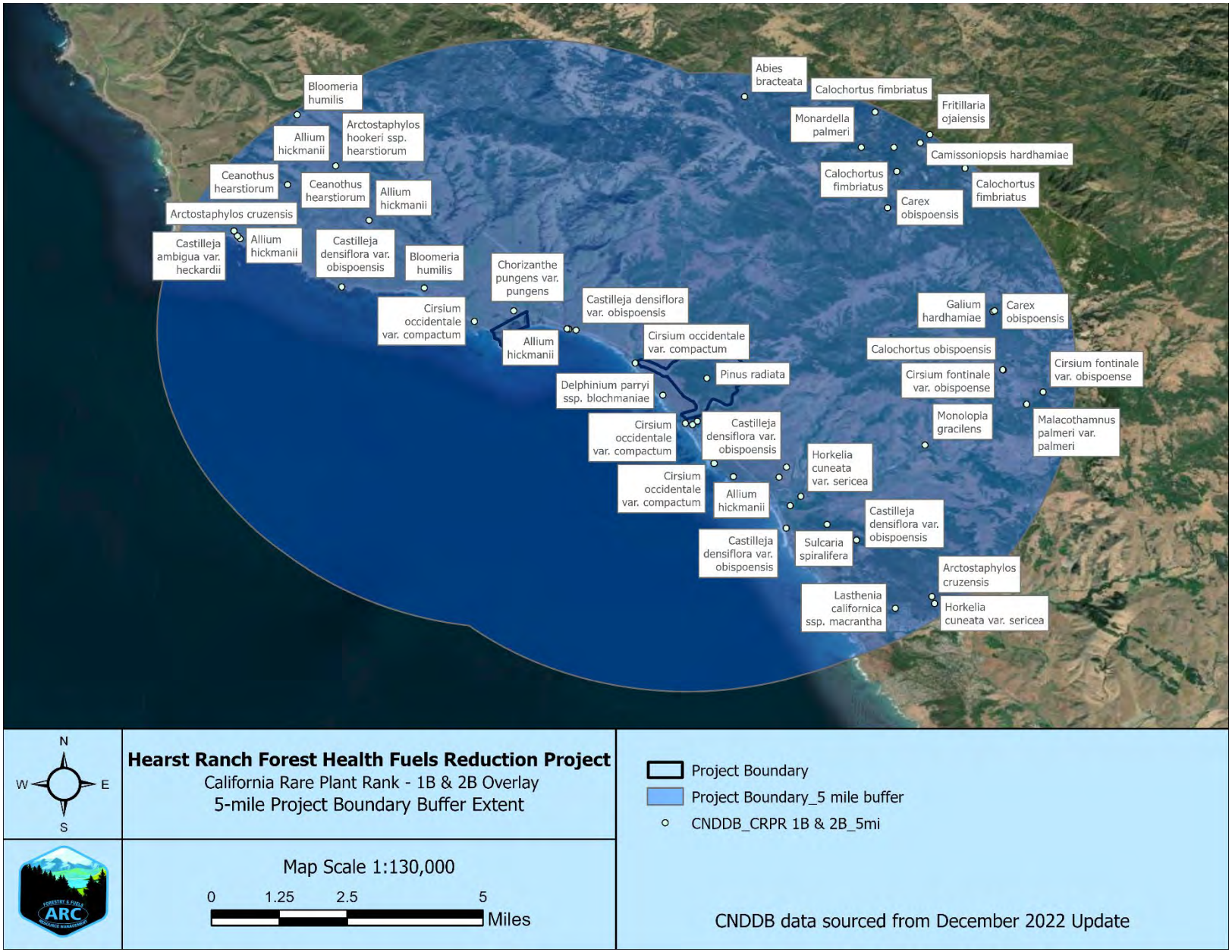
Map 4 Pico Creek Monterey Pine Stand vegetation type and treatment unit overlay



Map 5 CNDDB 9-Quadrangle Special-Status Species inquiry



Map 6 CNDDB 5-mile Special-Status Species inquiry



Map 7 California Rare Plant Rank 1B & 2B species within 5-miles of Project Areas

ATTACHMENT C: BIOLOGICAL RESOURCES, CNDDB, AND HABITAT EVALUATION

Vegetation and Habitat

The project area is located within the Central California Coast ecoregion. Vegetation types for the project areas were determined through use of CAL FIRE's Fire and Resource Assessment Program (FRAP) GIS layer and in-field reconnaissance and verification. The FRAP vegetation layer was then used to identify the California Wildlife Habitat Relationship (CWHR) habitat and vegetation types within the project area. The CWHR classifications were cross-referenced to Manual of California Vegetation (MCV) (CNPS 2022a) alliances to identify sensitive natural communities that may occur within each CWHR type in this ecoregion.

Table A lists the acreage and relative abundance of each CWHR habitat type in the project area, the corresponding MCV alliances that may be found in each CWHR type, and the alliances that are designated sensitive natural communities or that are dominated by nonnative species.

Table A Project Vegetation Types and Associated MCV Alliances

Site	Vegetation Type	CWHR Classification	Frequency	Acres	Percent of Project Area	MCV Alliances
Pico Creek	Closed-Cone Pine-Cypress	Closed-Cone Pine-Cypress	1	260.02	48.15%	Knobcone pine forest Bishop pine – Monterey pine forest
Pico Creek	Annual Grassland	Annual Grassland	9	201.83	37.38%	Fiddleneck – phacelia field Wild oat grassland Upland mustard and other ruderal forbs Annual brome grassland Red brome or grassland Cheatgrass – medusahead grassland Annual dogtail grassland Squirreltail patch California goldfields – dwarf plantain – small fescue flower fields Perennial rye grass field Spanish clover field Yellow star-thistle field Popcorn flower field

Pico Creek	Hardwood/Oak Woodland	Coastal Oak Woodland	2	72.58	13.44%	Madrone forest Coast live oak woodland Mixed oak forest Shreve oak forest California bay forest California bay and canyon live oak forest California bay and coast live oak forest Tanoak – California bay forest
Pico Creek	Hardwood-Conifer	Montane Hardwood-Conifer	2	37.85	7.01%	Bigleaf maple forest White alder grove
Pico Creek	Coastal Scrub	Coastal Scrub	4	30.09	5.57%	California sagebrush scrub Coyote brush scrub Hazelnut scrub Live-forever – lichen/moss sparse herbaceous rock outcrop California coffee berry scrub Deer weed scrub Silver bush lupine scrub Ice plant mats Coast range stonecrop draperies Poison oak scrub Salmonberry Bush monkeyflower scrub Coyote brush – ocean spray scrub

Pico Creek	Hardwood/Riparian	Valley Foothill Riparian	2	27.10	5.02%	Box-elder forest Torrent sedge patch California sycamore woodland California sycamore – coast live oak riparian woodlands Fremont cottonwood forest Black cottonwood forest Himalayan blackberry – rattlebox – edible fig riparian scrub Sandbar willow thicket Red willow thicket Shining willow groves Pepper tree or Myoporum grove Red willow riparian Woodland and forest Arroyo willow – red willow riparian woodland Hazelnut scrub Sitka willow thickets Arroyo willow
San Simeon Point	Closed-Cone Pine-Cypress	Closed-Cone Pine-Cypress	1	42.91	7.95%	Knobcone pine forest Bishop pine – Monterey pine forest
San Simeon Point	Coastal Scrub	Coastal Scrub	5	32.66	6.05%	California sagebrush scrub Coyote brush scrub Hazelnut scrub Live-forever – lichen/moss sparse herbaceous rock outcrop California coffee berry scrub Deer weed scrub Silver bush lupine scrub Ice plant mats Coast range stonecrop draperies Poison oak scrub Salmonberry Bush monkeyflower scrub Coyote brush – ocean spray scrub

San Simeon Point	Annual Grassland	Annual Grassland	1	25.61	4.74%	Fiddleneck – phacelia field Wild oat grassland Upland mustard and other ruderal forbs Annual brome grassland Red brome or grassland Cheatgrass – medusahead grassland Annual dogtail grassland Squirreltail patch California goldfields – dwarf plantain – small fescue flower fields Perennial rye grass field Spanish clover field Yellow star-thistle field Popcorn flower field
San Simeon Point	Eucalyptus	Eucalyptus	2	23.57	4.36%	Eucalyptus
San Simeon Point	Coastline	N/A	2	6.13	1.13%	N/A
San Simeon Point	Urban	Urban	1	1.33	0.25%	N/A

Special-Status Species

The California Natural Diversity Database (CNDDB) is an inventory of the status and locations of rare plants, animals, and ecological communities in California. Managed by the California Department of Fish and Wildlife (CDFW), CNDDB staff work with partners to maintain current lists of rare species, as well as to maintain an ever-growing database of GIS-mapped locations for these species. RareFind 5 is an internet application that allows for complex querying and reporting of CNDDB data.

RareFind 5 was utilized for this project to compile a CNDDB list of special-status plant and animal species or biological communities that are known to occur in the area or have the potential to occur in the area, their listing status, and associative geospatial information when available. For the purpose of this PSA, "special-status" refers to CNDDB species that possess one or more of the following federal and/or state statuses: *Rare, Threatened or Candidate Threatened, Endangered or Candidate Endangered, CDFW Species of Special Concern, State Rank S1 or S2, and/or California Rare Plant Rank 1A/B or 2A/B*.

A RareFind 5 query conducted in December of 2022 returned fifty-six (56) special-status biological species; twenty-one (21) special-status wildlife species and thirty-five (35) special-status plant species within a 5-mile vicinity of the project areas.

Table B presents special-status plant and wildlife species that are known to occur in the project region based on a CNDDB inquiry of the aforementioned USGS quadrangles:

Table B Special-Status Biological Species known to occur in the project region and their potential for occurrence in the project area

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
bristlecone fir *Abies bracteata*	-	-	1B.3	Discontinuous stands of one to hundreds of trees, generally comprising < 5 ha, in less fireprone areas such as steep, west-, north-, or east-facing slopes in canyons or ravines, often in moist microsites near the bottom or at the head of drainages, often in talus or scree; above 1400 m on all exposures on rocky ridgetops, bluffs, or cliffs; and occasionally on stream benches or terraces. Generally in rocky, clayey, or loamy soil, occasionally on sandstone and serpentine.	Highly unlikely to occur in the project area. The project area is less than 400 feet above sea level, is not rocky or shaded or on a ridge, and is in a fireprone area. No records of the bristlelcone fir are found along the immediate coast in project habitats, and no appropriate habitat is found here. No impact.
Hickman's onion *Allium hickmanii*	-	-	1B.2	Coastal prairie or grassy openings in Monterey pine (Pinus radiata) forest or the edges of vernal pools, usually on damp clay-loam soils (but not heavy adobe), underlain by sandstone or shale.	This perennial herb has been found near the project site and suitable habitat exists in the project area. Surveys will be conducted by a qualified botanists prior to implementation and occurrences will be flagged for avoidance or work will be done outside of the growing season when the bulb is dormant. LTS
Arroyo de la Cruz manzanita *Arctostaphylos cruzensis*	-	-	1B.2	Prefers sandy soils in broadleafed upland forests, closed-cone coniferous forests, coastal scrub, and grasslands. Local to the coastal bluffs and terraces of San Luis Obispo and Monterey Counties.	This chaparral shrub has been found near the project site and suitable habitat exists in the project area. Surveys will be conducted by a qualified botanists prior to implementation and occurrences will be flagged for avoidance. LTS

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Hooker's manzanita *Arctostaphylos hookeri* ssp. *Hearstiorum*	-	E	1B.2	This shrub is endemic to California where its native range extends from the coastal San Francisco Bay Area to the Central Coast. Can tolerate a little clay but does best in heavy loam or sandy loam that is slightly acidic. Dry coastal slopes, bluffs and dunes, northern coastal scrub, and sandy openings in coastal pine woodlands from the bay area to San Luis Obispo County.	Could occur. This chaparral shrub has been found near the project site and suitable habitat exists in the project area. Surveys will be conducted by a qualified botanists prior to implementation and occurrences will be flagged for avoidance. LTS
Dwarf goldenstar *Bloomeria humilis*	-	R	1B.2	Found on the edges of grassy places. It is endemic to San Luis Obispo County, California, where it is known from only one occurrence on the coastline near San Simeon. It is a plant of the local chaparral and coastal grassland.	This perennial bulb forming plant has been found in grassland habitat near the project area. Surveys will be conducted by a qualified botanists prior to implementation and occurrences will be avoided by flagging or working during the dormant season. LTS
Late-flowered mariposa-lily *Calochortus fimbriatus*	-	-	1B.3	Native to the coastal mountain ranges of southern Monterey, San Luis Obispo, Santa Barbara and northern Ventura counties, where it is a member of the chaparral flora. Dry places with heavy or rocky soil.	This bulb forming perennial has been found in drier sites inland from the project area but could possibly occur there so surveys will be conducted by a qualified botanists prior to implementation and occurrences will be avoided by flagging or working during the dormant season. LTS
San Luis mariposa-lily *Calochortus obispoensis*	-	-	1B.2	Found in coastal sage scrub, chaparral, valley grassland. Endemic to San Luis Obispo County. Primarily associated with dry, serpentine soils in open chaparral where it flowers May–June.	Not expected to occur. This species is not expected to occur based on the lack of serpentine soils in the project area but will be surveyed for prior to implementation and occurrences will be avoided by flagging or working during the dormant season. LTS
Hardham's evening-primrose *Camissoniopsis hardhamiae*	-	-	1B.2	This evening primrose grows in the chaparral and foothill woodland communities of San Luis Obispo and Monterey Counties. Typically found between 1020-2060' elevation in sandy, limestone, or disturbed oak woodland soils.	This species has been found in the inner coast ranges east of the project area in drier climates at higher elevations but there is a small chance it could occur in the project area, so will be surveyed for prior to implementation and occurrences will be avoided by flagging or working during the dormant season. LTS

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
San Luis Obispo sedge *Carex obispoensis*	-	N	1B.2	San Luis Obispo sedge occurs in a variety of habitats and is often associated with clay soils near serpentine seeps, sometimes gabbro. May occur in closed-cone coniferous forests, chaparral, coastal prairie, coastal scrub, and grassland habitats.	Soils in the project area are sandy coastal loams and not serpentine derived so unlikely to support the San Luis Obispo Sedge. This species will be looked for during plant surveys and flagged for avoidance if found. LTS
Heckard's owl's-clover *Castilleja ambigua var. heckardii*	-	N	1B.1	A species of Indian paintbrush native to western North America from British Columbia to California, where it is most common along the coast in salt marshes and scrub. It occurs in shallow depressions that may be vernally moist in sandy soils on coastal bluffs and ridge tops in dryish coastal terrace grasslands with a mix of native species and invasive grasses.	This owl's clover has been found in open moist grasslands along the coast north of the project area. Although suitable habitat may occur near or in the project area, no treatments will be applied to these habitats and therefore there will be no expected impact from fuel removal. There may be ancillary impact from vehicle or foot traffic. A survey for suitable habitat will be conducted and any vernally moist areas in surrounding grasslands will be avoided. LTS
San Luis Obispo owl's-clover *Castilleja densiflora var. obispoensis*	-	N	1B.2	This species is endemic to San Luis Obispo County. May occur in serpentinite soils and is associated with meadows, seeps, and coastal valley or foothill grasslands.	The San Luis Obispo owl's clover has been found along the immediate coastal terrace below the Pico project area and east of the San Simeon Point project area but prefers open grassland habitats so there will be no expected impact from fuel removal. There may be ancillary impact from vehicle or foot traffic. A survey for suitable habitat will be conducted and any vernally moist areas in surrounding grasslands will be avoided. LTS
Hearsts' ceanothus *Ceanothus hearstiorum*	-	R	1B.2	Endemic to California, where it grows wild only on the hilly coastline of San Luis Obispo County. This plant prefers to be near the coast where it would have cooler temperatures and some fog. Tolerates sandy/rocky, clay or adobe soils but not pure beach sand.	Hearst's ceanothus has the potential to occur in the project area because of the proximity of known populations and generally suitable habitat. Although no ceanothus was seen on reconnaissance surveys, all ceanothus will be surveyed for during pre-implementation surveys, and any sensitive species will be flagged for avoidance. LTS

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Maritime ceanothus *Ceanothus maritimus*	-	R	1B.2	Rare species of ceanothus known from only a few occurrences in the vicinity of Hearst Ranch. It shares the same range as the similarly rare *Ceanothus hearstiorum*, growing on the coastal bluffs. Normally found on sand sea bluffs, but tolerant of clay or rocky soils.	Maritime ceanothus has the potential to occur in the project area because of the proximity of known populations and generally suitable habitat. Although no ceanothus was seen on reconnaissance surveys, all ceanothus will be surveyed for during pre-implementation surveys, and any sensitive species will be flagged for avoidance. LTS
Santa Lucia purple amole *Chlorogalum purpureum var. purpureum*	TH	-	1B.1	Very rare perennial herb found in foothill woodland environments and poorly vegetated, infertile, gravelly or clay soil patches in blue oak woodland or chaparral edges, ± 300 meters elevation.	It is very unlikely that this species occurs in or near the project area because the habitat there does not contain suitable habitat and the nearest know population of this amole is over 10 miles away. No impact is anticipated.
Monterey spineflower *Chorizanthe pungens* var. *pungens*	FT	-	1B.2	Coastal dunes, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Sandy soils in coastal dunes. 0–558 feet in elevation. Blooms April–June (July),(August). Annual.	Not expected to occur. Project area is not within the range of this species. This species is endemic to Santa Cruz County. No impact is anticipated.
Chorro Creek bog thistle *Cirsium fontinale var. obispoense*	E	E	1B.2	Chorro Creek bog thistle occurs naturally only in San Luis Obispo County and is restricted to open seeps in serpentine outcrops and drainages. May occur along streams (extremely rare).	This species is highly unlikely to occur in the project area because of the lack of serpentine soils here. All wet seeps/riparian areas in the project area will be avoided per SPRs. No effect
Compact cobwebby thistle *Cirsium occidentale var. compactum*	-	-	1B.2	Occurs in chaparral, coastal dunes and bluff communities, coastal prairie, and coastal scrub in northern San Luis Obispo County and Monterey County.	The compact cobwebby thistle is found along the coast near the Pico Project Site and may occur within the project sites, so will be surveyed for and avoided if found. One specimen of this species was observed during botanical surveys that occurred on May 8, 2023, at San Simeon Point (see Attachment E). LTS
Dune larkspur *Delphinium parryi ssp. Blochmaniae*	-	-	1B.2	The dune larkspur occurs in maritime chaparral communities and coastal dune habitats as it prefers sandy soils. Low elevation species.	The Dune Larkspur is found along highway 1 just south of the Pico project site and so could be found at either work site, however it is less likely to be found in the Pico site because soils are not derived from dune habitat. Surveys will be conducted and if found will be flagged for avoidance. LTS

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Blochman's dudleya *Dudleya blochmaniae ssp. Blochmaniae*	-	-	1B.1	Occurs on rocky, often clay-dominant or serpentinite soils in coastal scrub, chaparral, and grassland habitats at less than 450 m elevation. Commonly found on coastal bluffs.	Blochman's dudleya is found along the coast within a mile of the San Simeon Project site in an area where there are small serpentine outcrops. Soils at San Simeon are sandy and soils at Pico are loamy, and there are no rock outcrops where project work will be conducted. Not likely to impact.
Ojai fritillary *Fritillaria ojaiensis*	-	-	1B.2	This wildflower is endemic to central California, where it is known from very few occurrences in the central Coast Ranges. Rocky slopes, river basins. May occur between 380-4800' elevation.	Ojai fritillary has been found near Cambria and inland from the work site and is a perennial bulb. If in a project site could be impacted by trampling. Surveys will be conducted and if found will be flagged for avoidance. LTS
Hardham's bedstraw *Galium hardhamiae*	-	-	1B.3	A strict endemic occurring in closed-cone pine forests and chaparral on serpentinite soils at less than 1000 m elevation. Known to associate with Sargent cypress (*Cupressus sargentii*).	Suitable habitat conditions for Hardham's bedstraw are not known to occur on either the Pico or San Simeon project site. Very unlikely to occur here. No impact is anticipated.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	-	-	1B.1	Old dunes, coastal sandhills; openings. 16–705 feet in elevation. Blooms April–September. Perennial.	Kellogg's horkelia is a perennial herb found in nearby San Simeon State Park and occurs on habitats found within both project sites and is susceptible to trampling from machinery. Surveys will be conducted and if found will be flagged for avoidance. LTS
Perennial goldfields *Lasthenia californica* ssp. *Macrantha*	-	-	1B.2	Grassland, dunes along immediate coast. 16–607 feet in elevation. Blooms January–November. Perennial.	This annual herb has been found in San Simeon and occurs on habitats found within both project sites and is susceptible to trampling from machinery. Surveys will be conducted and if found will be flagged for avoidance. LTS
Santa Lucia bush-mallow *Malacothamnus palmeri var. palmeri*	-	-	1B.2	Primarily found in rocky chaparral communities and interior valley foothills. Extremely rare endemic species.	The Santa Lucia bush mallow typically occurs inland but has been found along the San Simeon coast. Suitable rocky chaparral habitat is generally not found in the project area but occurrances of this habitat and species will be surveyed for and if found, flagged for avoidance. LTS

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Palmer's monardella *Monardella palmeri*	-	-	1B.2	A species of flowering plant in the mint family, endemic to California, where it is known only from the Santa Lucia Mountains of the California Coast Ranges in Monterey and San Luis Obispo Counties. It grows in local habitat types such as chaparral and forest, often on serpentine soils.	Palmer's monardella typically occurs inland from the project sites in the mountainous regions but may possibly occur on the Pico site even though serpentine chaparral or forest is not known of onsite. Low probability but will be surveyed for along with Monardella sinuata ssp. sinuata which is found along the coast. LTS
Southern curly-leaved monardella *Monardella sinuata ssp. sinuata*	-	-	1B.2	Sandy soils, coastal strand, dune and sagebrush scrub, coastal chaparral, and oak woodland <300 m elevation.	Southern curly-leaved monardella has been found very close to the San Simeon project site so is likely to occur within the site. It is an annual plant that is susceptible to trampling during the growth period but not after seeding in the late summer. Surveys will be conducted and if found will be flagged for avoidance. LTS
Woodland woollythreads *Monolopia gracilens*	-	-	1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, north coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. 328–3937 feet in elevation. Blooms (February), March–July. Annual.	Woodland woollythreads has been found along the coast near Cambria and San Simeon so could occur on the project sites. It is an annual plant that is susceptible to trampling during the growth period but not after seeding in the late summer. Surveys will be conducted and if found will be flagged for avoidance. LTS
Arroyo de la Cruz lousewort *Pedicularis rigginsiae*	-	-	1B.1	Endemic to the Arroyo de la Cruz area of San Luis Obispo County, California. Very few recorded occurrences.	The Arroyo de la Cruz lousewort is a perennial herb that grows between the coast and coast range, but suitable habitat is not likely to occur on either of the project sites. This species and other sensitive plants associated with it will be surveyed for and flagged for avoidance. LTS

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Monterey pine *Pinus radiata*	-	-	1B.1	The Monterey pine occurs primarily along the Pacific Coast of California in three disjunct populations in San Mateo and Santa Cruz Counties, Monterey County, and San Luis Obispo County. Variations of this species occur on Guadalupe Island and Cedros Island off the west coast of Baja California. Monterey pine grows in coastal, closed-cone coniferous woodlands on primarily well-drained soils. The cones of the Monterey pine are serotinous and dependent on fire or high temperatures to release their seeds; therefore, this species is localized to fire- adapted environments where natural regeneration occurs. Commonly associated with western hardwood communities and may occur with other closed-cone pine species such as knobcone pine (*Pinus attenuata*) and bishop pine (*Pinus muricata*). Monterey pine can typically be found between 197-410 ft elevation. Blooms perennial.	**Known to Occur**. The proposed treatment areas predominantly consist of Monterey pine forest, or Pinus radiata Forest Alliance, which possesses a rarity rank of S1.2, as defined in the Manual of California Vegetation, Second Edition. This alliance designation pertains to Monterey pine forests with more than 25% Monterey pine cover in the tree layer.
Santa Lucia mint *Pogogyne clareana*	-	E	1B.2	Summer-dry creek beds, swales, vernal pools. Chaparral and oak woodland environments. Known only from about fifty occurrences all located within the bounds of Fort Hunter Liggett.	Very unlikely to occur on the project sites. All vernal wetlands or riparian areas will not be worked within per SPRs. No impact
Adobe sanicle *Sanicula maritima*	-	R	1B.1	Endemic to California, primarily known from limited occurrences in Monterey and San Luis Obispo Counties. Habitat includes moist coastal meadows and canyons.	Adobe sanicle is perennial herb associated with moist coastal meadows and canyons, areas that will not be affected by fuel reduction work. There is a known occurrence at San Simeon State Park, but suitable habitats in moist meadows canyons will not be worked in. No impact

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Most beautiful jewelflower *Streptanthus albidus* ssp. *Peramoenus*	-	-	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 312–3281 feet in elevation. Blooms (March), April–September (October). Annual.	Could occur. Chaparral and grassland with serpentine habitat potentially suitable for this species is present in the project area. Treatments could result in direct or indirect adverse effects on Streptanthus albidus ssp. Peramoenus. However, this species is an annual herb. Impacts on this species would be avoided by implementing treatment activities during the dormant season, after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October – December (Levine et. Al 2008). If treatment activities cannot be completed in the dormant season and would be implemented during the growing season, pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
California seablite *Suaeda californica*	E	N	1B.1	Rare species of flowering plant in the amaranth family where it is known from a few occurrences on the margins of coastal salt marshes around Morro Bay.	Only grows along the intertidal salt marshes that are not in or would be indirectly affected by project activities. No impact.
Twisted horsehair lichen *Sulcaria spiralifera*	-	-	1B.2	Endemic to coastal dune forests in western North America. It occurs at scattered localities from central California to Washington. It is rare throughout its range, except on the Samoa Peninsula in California's Humboldt County and on the Oregon Dunes in Coos County where it is locally abundant.	Twisted horsehair lichen has been found south of the project area along Point Buchon. It is feasible that this could grow in the pines of either work site and so will be surveyed for. If found on pines or cypress planned for removal, these trees will be flagged for avoidance unless extensive across the work site and project objectives cannot be met, in which case will be further evaluated.
Cook's triteleia *Triteleia ixioides ssp. cookii*	-	-	1B.3	Endemic to the southern Santa Lucia Mountains, in southern California. Stream sides, wet ravines on serpentine, often near cypresses <700 m elevation.	Suitable habitat is unlikely to occur on either site and will be avoided by project activities per SPRs. Not likely to be found or impacted.
Invertebrates					
obscure bumblebee *Bombus caliginosus*	-	SSC	-		See notes for Crotch bumble bee and western bumblebee below which also apply to the obscure bumblebee.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Crotch bumble bee *Bombus crotchii*	-	CE	-	Found primarily in California: Mediterranean climates along the Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	Could occur. Potentially suitable habitat occurs within the project area. Treatment activities within suitable habitat for Crotch bumble bee may result in the removal of floral resources; however, habitat suitable for Crotch bumble bee would be maintained. If Crotch bumble bees are detected during pre-treatment surveys, or if presence of the species in suitable habitat is assumed, treatment of suitable habitat will be designed to maintain floral resources during any year of treatment, and limitations on use of herbicides during the flight season would be implemented to minimize injury or mortality. Information on bumble bees in general, and Crotch bumble bee specifically, is gradually becoming more available. However, there is limited information on the abundance of Crotch bumble bee in California or colony size (CDFW 2019), and a current lack of published information on the potential magnitude of effects from the loss of individual Crotch bumble bee overwintering queens or nests on populations of the species. Therefore, assessing the significance of impacts on the species due to the potential loss of overwintering queens or nests from this project would be speculative. CEQA Guidelines indicate that after thorough investigation, if an impact is too speculative for meaningful evaluation, this finding should be noted, and further discussion can be concluded (State CEQA Guidelines Section 15145). Regional coordination with CDFW on the species concluded that for CESA compliance purposes, the mitigation actions for the species are appropriate measures to maintain suitable refuge and habitat functions of floral resources for Crotch bumble bee and no additional recommendations to avoid impacts to the species were provided (Swan, pers. Comm., 2022). For these reasons, it is unlikely that populations of these species would be reduced below self-sustaining levels as a result of implementation of the proposed project or that treatment activities would substantially reduce the number or restrict the range of this species.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Monarch butterfly *Danaus plexippus pop. 1*	FC	SSC	-	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Along migration routes and within summer ranges, monarch butterflies require two suites of plants: (1) host plants for monarch caterpillars, which are primarily milkweeds (*Asclepias* spp.) within the family *Apocynaceae* upon which adult monarchs lay eggs; and (2) nectar-producing flowering plants of many other species that provide food for adult butterflies. Having both host and nectar plants available from early spring to late fall and along migration corridors is critical to the survival of migrating pollinators.	**Known to occur.** See Attachment F: San Simeon Point Monarch Overwintering Habitat Management Report

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Western bumble bee *Bombus occidentalis*	-	CE	-	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.	Could occur. Potentially suitable habitat occurs within the project area. Treatment activities within suitable habitat for western bumble bee may result in the removal of floral resources required for the species; however, habitat for western bumble bee would be maintained. If western bumble bees are detected during pre-treatment surveys, or if presence of the species in suitable habitat is assumed, treatment of suitable habitat will be designed to maintain patches of floral resources during treatment, and limitations on use of herbicides during the flight season would be implemented to minimize injury or mortality. Information on bumble bees in general, and western bumble bee specifically, is gradually becoming more available. However, there is limited information on the abundance of western bumble bee in California or colony size (CDFW 2019), and a current lack of published information on the potential magnitude of effects from the loss of individual western bumble bee overwintering queens or nests on populations of the species. Therefore, assessing the significance of impacts on the species due to the potential loss of overwintering queens or nests from this project would be speculative. CEQA Guidelines indicate that after thorough investigation, if an impact is too speculative for meaningful evaluation, this finding should be noted, and further discussion can be concluded (State CEQA Guidelines Section 15145). Regional coordination with CDFW on the species concluded that for CESA compliance purposes the mitigation actions for the species are appropriate measures to maintain suitable refuge and habitat functions of floral resources for western bumble bee and no additional recommendations to avoid impacts to the species were provided (Swan, pers. Comm., 2022). For these reasons, it is unlikely that populations of these species would be reduced below self-sustaining levels as a result of implementation of the proposed project or that treatment activities would substantially reduce the number or restrict the range of this species.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Smith's blue butterfly *Euphilotes enoptes smithi*	E	-	-	The habitat consists of coastal dune, prairie, and scrub along Central California. During its whole lifespan, the Smith's blue butterfly uses only two host buckwheat: Eriogonum latifolium and Eriogonum parvifolium. After emerging while the buckwheat flowers bloom, adult butterflies' mate and deposit eggs on the flowers of these host plants within their 1-week lifespan. Hatching transpires soon afterward, and the larvae begin to feed on the flowers of the very same host plant.	Although the project occurs south of known habitats for Smith's blue butterfly the host plant may occur along the outer margins or open interior areas of the San Simeon site. These kinds of habitats are not the focus of fuel reduction but there is a small probability of impact from trampling or machinery access. Host plants will be surveyed for, flagged and avoided. LTS
Steelhead – south-central California coast DPS *Oncorhynchus mykiss irideus*	FT			This is an anadromous fish species that occurs in freshwater Pacific coast streams. This steelhead species will migrate to marine waters once it nears maturity, then returns to freshwater streams for spawning. Typically, this species requires a minimal of approximately 7 inches of water depth for migration and favors spawning habitat between 6 and 24 inches deep, usually in slow moving currents. High water velocities and low water depth can impede on this species' capability to migrate.	Not expected to occur. The project area does not contain any Class I or Class II fish bearing streams and neither of the project sites are directly adjacent to suitable streams or known steelhead populations. A portion of the Pico Project is within 500 feet of Pico Creek and is within that watershed, a known steelhead stream. Soil disturbance from the project is negligible and chipping will provide extra ground cover, so no indirect erosion impacts are expected. Any prescribed burning in the Pico watershed will only be of very low intensity and not expose any bare ground that could deliver sediment into Pico Creek. If such a low intensity prescribed burn is not possible it will be avoided. Herbicide applications will only be one by hand on a plant by plant basis and will not drift into Pico Creek waters or migrate in surface water to Pico Creek before decomposing. No impact is anticipated.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Tidewater goby *Eucyclogobius newberryi*	FE	SSC		Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. 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 is not directly adjacent to, and does not contain, any brackish water lagoon habitat that would support this species. No indirect impacts from sedimentation are expected from project activities. Soil disturbance from the project is negligible and chipping will provide extra ground cover, so no indirect erosion impacts are expected. Any prescribed burning in the Pico watershed will only be of very low intensity and not expose any bare ground that could deliver sediment into Pico Creek. If such a low intensity prescribed burn is not possible it will be avoided. Herbicide applications will only be one by hand on a plant by plant basis and will not drift into Pico Creek waters or migrate in surface water to Pico Creek before decomposing. No impact is anticipated.
Reptiles and Amphibians					
Northern California legless lizard *Anniella pulchra*		SSC		Sandy or loose loamy soils under sparse vegetation in chaparral and coastal scrub. Soil moisture is essential. They prefer soils with a high moisture content.	Could occur. The project area is within the range of this species (Cal Herps 2022c). Project treatments within suitable chaparral and scrub habitat for Northern California legless lizard may result in the injury or death of individuals if present. If northern California legless lizards are detected during surveys, biological monitoring, and relocation of individual animals by a qualified biologist, would be implemented to reduce injury or mortality.
Western pond turtle *Emys marmorata*	-	SSC	-	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	Could occur. Class III streams and potential upland habitat may occur in open areas of the project area (within 0.3 mile from streams, ponds, and reservoirs). Project treatments within suitable habitat for western pond turtle may result in the injury or death of individuals if present. If western pond turtles are detected during surveys, or presence is assumed within suitable habitat, biological monitoring, avoidance of nests, along with implementation of ELZs would be implemented to reduce injury or mortality.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Foothill yellow-legged frog *Rana boylii*		SE SSC		Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Could occur. The species occurred historically in the vicinity of the project; however, the only record within proximity to the project area occurs at the mouth of Little Pico Creek, north of the treatment area at Pico Creek (CNDDB 2022a). Suitable habitat for the species is very limited along Little Pico Creek and Pico Creek. However, the species may occur within the project area without dense riparian canopies. Treatment activities within suitable habitat for foothill yellow-legged frog may result in the injury or death of individuals if present. If foothill yellow-legged frogs are detected during pre-treatment surveys or assumed to occur within treatment areas, biological monitoring, and work stoppages, along with implementation of ELZs would be implemented to avoid injury or mortality.
California red-legged frog *Rana draytonii*	FT	SSC		Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat in adjacent natural upland vegetation.	Could occur. California red-legged frogs (CRF) have been documented along South Fork Pico Creek outside of the eastern boundary of the project area at Pico Creek (CNDDB 2022a). Additionally, CRF have been documented at the mouth of Broken Bridge Creek between the two project sites along HWY1. Suitable aquatic habitat may present within and adjacent to treatment areas, and upland habitat for California red-legged frog is present within treatment areas. Treatment activities within suitable habitat for California red-legged frog may result in the injury or death of individuals if present during these activities. If California red-legged frogs are detected during pre-treatment surveys or assumed to occur within treatment areas, biological monitoring, and work stoppages, along with implementation of ELZs would be implemented to avoid injury or mortality.
Coast Range newt *Taricha torosa ssp. Torosa*	-	SSC	-	A recognized subspecies of the California newt, the Coast Range newt migrates to ponds from late- to mid-year. In Central California, they are found in mountainous or rolling woodland and grassland environments. Breeding is aquatic and takes place primarily in ponds, reservoirs, and streams.	There is a slight possibility that the coast range newt may occur in the drainages of the Pico Project area but these class III drainages are generally too dry and well drained to support this newt. If surveys show that there may be suitable habitat, then work during the wet season may injure or kill individuals moving outside of the riparian area. If coast range newts are detected during surveys, biological monitoring, and relocation of individual animals by a qualified biologist, would be implemented to reduce injury or mortality.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Two-striped gartersnake *Thamnophis hammondii*	-	SSC	-	This highly aquatic species forages primarily in and along streams for fish eggs or amphibian larvae. Primarily associated with permanent or semi-permanent bodies of water bordered by dense vegetation. Frequents holes, burrows, crevices, and surface objects nocturnally. During the day, the two-striped gartersnake can be found basking on streamside rocks or vegetated banks.	Could occur. Class III streams and potential upland habitat may occur in open areas of the project area (within 0.3 mile from streams, ponds, and reservoirs). Project treatments within suitable habitat for Two-striped gartersnake may result in the injury or death of individuals if present. If Two-striped gartersnake are detected during surveys, or presence is assumed within suitable habitat, biological monitoring, avoidance of nests, along with implementation of ELZs would be implemented to reduce injury or mortality.
Birds					
Tricolored blackbird *Agelaius tricolor*	-	ST SSC	-	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey in proximity of the colony in the form of large grassland habitats or agricultural areas.	Not expected to occur. No habitat present on either work site.
Grasshopper sparrow *Ammodramus savannarum*	-	SSC	-	Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Could occur. While most grassland habitats within the project area are small and isolated and not likely to be suitable for this species, grassland habitat may be suitable. Treatments conducted within habitat suitable for grasshopper sparrow during the nesting bird season could destroy or disturb active nests, potentially resulting in abandonment of the nest and loss of young, if present in treatment areas. If active grasshopper sparrow nests are observed during focused surveys, then a non-disturbance buffer would be established around the nest to avoid disturbance.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Pallid bat *Antrozous pallidus*	-	SSC	-	Most common in open, dry habitats. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings. Very sensitive to disturbance of roosting sites.	Could occur. No maternity roost habitat is found in the project area. Cavities in large trees and snags within the project area may be suitable roosts for pallid bat. Treatments conducted within habitat suitable for bats during the bat maternity season could disturb active bat roosts, potentially resulting in abandonment of the roost and loss of young. If active roosts are found during pre-treatment surveys, a no-disturbance buffer of 250 feet would be established around the roost to avoid and minimize disturbance, injury, or mortality.
Western snowy plover *Charadrius nivosus nivosus*	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 documented occurrences of this species within the project region are limited to coastal beaches at least one mile north of the project site at San Simeon Point (CNDDB 2022a). The project area does not contain beach or sandy, gravelly or friable soils suitable for nesting. No impact is anticipated.
Northern harrier *Circus hudsonius*	-	SSC	-	Northern Harriers breed in wide-open habitats ranging from Arctic tundra to prairie grasslands to fields and marshes. Their nests are concealed on the ground in grasses or wetland vegetation. In migration and winter, harriers typically move south away from areas that receive heavy snow cover, ending up in open habitats similar to those in which they breed.	No impacts to overwintering feeding habitats in open areas adjacent to the project areas. Some temporary roosting may occur in larger trees/snags within the project area, but northern harriers are able to flee disturbance and find other roosts.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Townsend's big-eared bat *Corynorhinus townsendii*	-	SSC	-	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub. Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in caves, abandoned, buildings, rock crevices, and large cavities in trees (CDFW 2013). Roosting sites limiting. Extremely sensitive to human disturbance.	Could occur. No maternity roost habitat is found in the project area. Cavities in large redwood trees and crevices in rock outcrops within the project area may be suitable roosts for Townsend's big-eared bat. Treatments conducted within habitat suitable for bats during the bat maternity season could disturb active bat roosts, potentially resulting in abandonment of the roost and loss of young. If active roosts are found during pre-activity surveys, a no-disturbance buffer of 250 feet would be established around the roost.
Black swift *Cypseloides niger*	-	SSC	-	Coastal belt of Santa Cruz and Monterey Co; 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. Nests on cliff edges and behind waterfalls in areas inaccessible to predators. Forages over forests and open areas.	No suitable habitat in or near the project area. No impact.
Tufted puffin *Fratercula cirrhata*	-	SSC	-		No suitable roosting or breeding habitat in the project area. Tree structure is not appropriate as horizontal branches of Monterey pine are exposed to the wind and too small to support puffin nests. No impact.

Note: CNDDB = California Natural Diversity Database; DPS= Distinct Population Segment; CESA = California Endangered Species Act; CRPR = California Rare Plant Rank; ESA = Endangered Species Act

Legal Status Definitions

Federal:

FE Endangered (legally protected)

FT Threatened (legally protected)

FC Candidate Endangered

FD Delisted

State:

CE Candidate threatened (legally protected)

CT Candidate threatened (legally protected)

SE Endangered (legally protected)

ST Threatened (legally protected)

FP Fully protected (legally protected)

SD Delisted

SR Rare (legally protected by NPPA)

SSC Species of special concern (no formal protection other than CEQA consideration)

California Rare Plant Ranks:

1A Plant species considered presumed extirpated in California and either rare or extinct elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

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)

Threat Ranks

0.1-Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

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

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available at the project site; however, there are little to no other indicators that the species might be present.

Known to occur: The species, or evidence of its presence, was observed at the project site during reconnaissance surveys, or was reported by others.

Sensitive Natural Communities

Upon review of occurrence data and habitat present, there are four sensitive natural communities with potential to occur in the CWHR habitat types present in the project area.

Sensitive natural communities were observed during the reconnaissance-level survey, including Monterey pine forest, Monterey cypress woodlands, and coast live oak woodland and forest. Not all parts of the project area were observed during the reconnaissance survey so additional sensitive natural communities may be present (including those identified in Table A). Implementation of SPR BIO-3 is required to map sensitive natural communities prior to treatment.

Coastal Zone Considerations

Due to this project occurring within the coastal zone, SPR BIO-8 applies to this project and includes consultation with the California Coastal Commission (CCC). Previous regional developments between the CCC and Upper Salinas-Las Tablas Resource Conservation District (US-LT RCD) achieved approval of a Public Works Plan that establishes a set of standards for CalVTP projects occurring within the coastal zone and US-LT RCD's jurisdictional boundary in San Luis Obispo County. A Coastal Vegetation Treatment Standards (Coastal VTS) document has been prepared for this project and is included in *Attachment D*. The entirety of the Monterey pine forest at Pico Creek is considered ESHA, as defined by the CCC. The basis of this project is to conduct ecologically restorative treatments that promote the persistence and resiliency of the Monterey pine forest type as an environmentally sensitive habitat area through a myriad of protection, conservation, and avoidance measures.

This project proposes all treatments to occur outside of Watercourse and Lake Protection Zones (WLPZ); however, riparian or hydrophytic vegetation may be present outside of the WLPZ. No WLPZs have been established within the treatment areas. The treatment prescriptions propose the removal of understory vegetation consistent with the Coastal Vegetation Treatment Standards (Coastal VTS) outlined in *Attachment D,* as well as impaired trees, and live trees up to 8 inches DBH.

Sensitive Habitats

Monterey Pine Forest

According to CAL FIRE FRAP vegetation data in combination with aerial photos and field verification points, there is approximately 260 acres of coniferous, closed-cone forest present within the treatment areas at Pico Creek, all of which is sensitive Monterey pine community (*Attachment B – Map 4*).

The proposed treatment areas predominantly consist of Monterey pine forest, or the *Pinus radiata Forest Alliance*, which possesses a rarity rank of S1.2, as defined in the Manual of California Vegetation, Second Edition (Sawyer et al., 2009). This alliance designation describes Monterey pine forests with more than 25% Monterey pine cover in the tree layer. A CNDDB analysis conducted for a similar project and ecosystem at Covell Ranch in Cambria, CA produced a rarity rank of S1.1 (critically impaired) exclusively for Monterey pine forest, designated as special-status forest habitat by the database. Due to these designations, Mitigation Measure BIO-3a would apply to the

proposed project; however, this project falls under the exception of Mitigation Measure BIO-3a due to the determination of qualified registered professional foresters (RPFs) that this area would benefit from the proposed treatments (Sawyer et al., 2009 and CNPS, 2019). The exception to the Mitigation Measure BIO-3a approach states that is acceptable only in cases where it is determined by a qualified RPF or botanist that the sensitive natural community would benefit from treatment in the occupied habitat area and it shall be demonstrated in the PSA that the treatment will be beneficial with substantial evidence that habitat function is expected to improve, as outlined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, 151-152).

The proposed treatments will occur in the Monterey pine forest type, which has been estimated to have a fire return interval of approximately 11.2-20.1 years in similar stands at Año Nuevo near Santa Cruz, California (Stephens et al., 2004). Although Monterey pine trees are a fire adapted species, ecological restoration treatments often include fuels reduction to develop a forest stand more resistant to catastrophic, stand-replacement fires. The reduction in vertical continuity of ladder fuels from the ground surface up into the crown may prevent fire-induced mortality of dominant trees, only allowing low- to moderate-severity burns to stay within the understory to promote comparatively greater survival rates of mature trees. Fire will effectively open the serotinous cones of Monterey pine and create favorable seed bed conditions for reproduction, which shows greatest rates of natural recruitment after surface fire in which the parent trees survive (CNPS, 2016).

Decades of fire suppression has led to the accumulation of dead, dry vegetation throughout the forest and a departure from the natural fire regimes described above. Pitch canker and western gall rust diseases have overcome regional Monterey pine forests and led to structural weaknesses, mass branch dieback, and outright mortality of infected individuals, causing both a fire hazard for the adjacent town of San Simeon Acres (“New San Simeon”) and physically hazardous conditions for wildfire response personnel.

Prescribed broadcast and pile burning will be implemented in areas treated prior by way of mechanical or manual treatment methods to reduce or dispose of residual vegetative matter and stimulate the regeneration of Monterey pine, which is expected to reduce the spread of deadly forest pathogens, create more vigorous and diverse mosaics of wildlife habitat, and restore the structural integrity of the forest for public safety and fire resiliency.

The natural fire regime will not be immediately restored by the proposed treatments, but characteristics of fire, predominantly regenerative action following vegetation treatments and ladder fuel alteration, will be conducted through mastication of understory vegetation, live trees up to 8 inches DBH, and dead, dying, and diseased trees to create a mosaic of treated areas that will promote the health and resiliency of the residual stand. In treatment areas where multiple age classes are represented, the proposed treatment will promote heterogeneity, resiliency, and health in the residual stand by creating different influences of sunlight through the canopy to the forest floor adding to a mosaic of diversity in the understory.

Based on the research above and collective years of experience managing fire-dependent forests, Steve Auten, RPF #2734, and CAL FIRE have determined that the Monterey pine forest within the

Hearst Ranch property bounds at Pico Creek would benefit from the ecological restoration treatment type proposed by this project.

Coastal Cypress Woodland

Planted Monterey cypress groves are present within the project area at San Simeon Point. The unique woodland community was introduced to the peninsula as well-spaced hedgerows in the mid- to late-1800s to serve as windbreaks for the adjacent village development presently referred to as Old San Simeon Village (OSSV). Over time, the Monterey cypress at San Simeon Point became a well-established feature to the peninsula and now offers a virtually naturalized sensitive habitat type within the treatment area.

Monterey cypress woodlands are still classified within the Closed-cone Pine-cypress CWHR type within this ecoregion along with Monterey pine. MM BIO-3a will be implemented for treatments within Monterey cypress stands to avoid substantial loss of the sensitive natural community, where treatments are primarily focused on the removal of dead, dying, and diseased trees and excessive accumulations of downed woody material.

Oak Woodland

Coast live oak woodland has been identified (see Table A above) as present or potentially present in the project area. Treatments have been designed to retain micro stands of oak trees with a cluster radius of approximately 25 feet (50-foot diameter) and to space these micro stands approximately 75-100 feet apart depending on the steepness of slope related to exacerbation of fire behavior or proximity to key infrastructure and assets. If treatment activities within identified oak woodlands cannot be avoided, then Mitigation Measure BIO-3a would apply in these areas.

Coastal Scrub

As described in Table A, coastal scrub habitat is present within the project areas. The overall project area contains approximately 62.7 acres of coastal scrub split somewhat evenly between the project sites – approximately 32.7 acres at San Simeon Point and approximately 30.0 aces at Pico Creek. There is potential for several Sensitive Natural Communities to occur within coastal scrub habitats in the project area (Table A). While sensitive coastal scrub communities may be present with the project area, no direct treatments are proposed within these communities; however, some treatment activities may take place within areas mapped as coastal scrub as a product of direct treatment in vegetation types surrounding coastal scrub. Coastal scrub habitat may be included in prescribed burning activities.

Pursuant to SPR BIO-3, treatments will be designed to maintain the characteristics and membership rules of any vegetation alliance that is designated as a sensitive natural community. SPR BIO-5 requires avoidance of the environmental effects of type conversion within coastal sage scrub and that the habitat function of these communities be maintained. Because the treatments would be designed to maintain 35 percent relative density of coastal sage scrub vegetation, replicate the natural disturbance regime of the vegetation type present, and maintain root crowns of resprouting shrubs, ecological function of the coastal sage scrub communities within the ecological restoration treatments would be maintained over the long term.

AGENCY CORRESPONDENCE:

California Department of Fish and Wildlife
United States Department of Fish and Wildlife
Central Coast Regional Water Quality Control Board

From: Sanderson, Brandon@CALFIRE
To: Gordus, Margarita@Wildlife; Fisher, Austin@Wildlife; Kirkland, Debora L; Coblentz, Alexandra L.@Waterboards
Cc: Riley McFarland; Kevin Cooper
Subject: Hearst Ranch Vegetation Treatment Project (CalVTP)
Date: Wednesday, March 8, 2023 10:39:00 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
230306_Hearst CalVTP_General Treatment Summary.docx
230307_Hearst CalVTP_Attachment A (BIO, GEO, HYD).docx
230306_Hearst CalVTP_Attachment C_Bio Resources.docx
230303_Hearst Ranch_Draft Rx_Imagery.pdf

Hello agency representatives,
I'm circling back around after our initial site visit back on 9/27/2022 to provide you with some project updates and information and to solicit any input into the development of the Hearst Ranch CalVTP Project Specific Analysis (PSA). Please remember that this PSA is still in the planning development stages and we would like to incorporate your input into the draft document prior to formal review. We are looking to get final approval from the USLT Resource Conservation District and California Coastal Commission later this spring.

The attached Word documents contain some background information and serve as a general reference for the type of work and treatment activities we are proposing. I've attached a couple of maps to hopefully give you a spatial reference for treatment activities to supplement the treatment specs. I've also included draft excerpts from the PSA that identify Specific Project Requirements and Minimization Measures directed specifically at Biological, Geological, and Hydrological resources for your specific review.

We have acquired the assistance of the Xerces Society to help with technical guidance on treatment options to avoid impacts to the monarch overwintering core areas. After conducting site visits the past few months, they are in the process of providing a report that lays out appropriate treatment guidance in those critical habitat areas. Once received this guidance will be added to the PSA to direct project treatment specifications to avoid potential impacts to the overwinter monarch population located on San Simeon Point.

I've also included a link here to the San Luis Obispo County's Fire Safe Council's website if you would like to review the current draft document in its entirety. https://fscslo.org/

We are happy to set up a conference call or another field visit with the project team to answer any further questions or concerns you may have. Thank you in advance for time and consideration regarding the Hearst Ranch CalVTP Project. We look forward to working with you further on this project.

Thank you,
-Brandon

From: Kirkland, Debora L
To: Sanderson, Brandon@CALFIRE
Subject: Re: [EXTERNAL] Hearst Ranch Vegetation Treatment Project (CalVTP)
Date: Monday, April 17, 2023 3:24:57 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
RMR_CRLF_Measures_Summary_VFWO.docx
230303_Attachment F_HearstRanch_Draft_MonarchHabitatManagementReport_USFWS.pdf
230306_Hearst CalVTP_Attachment C_Bio Resources_USFWS.docx
230306_Hearst CalVTP_General Treatment Summary_USFWS.docx
230307_Hearst CalVTP_Attachment A (BIO, GEO, HYD)_USFWS.docx

Warning: this message is from an external user and should be treated with caution.

Hi Brandon,

I have attached the draft documents with my comments.

I tried to view the draft PSA in its entirety following the provided link to the Firesafe website but was not able to locate it. Please send a direct link if possible.

I would like to visit the sites after each phase of treatment to check in about how the implementation of the measures is going.

For retention of habitat function for CRLF, please provide the proposed chip depth. Please see the measures proposed at the Rancho Marina site in Cambria (attached).

For monarchs, please see my notes on the Attachment F. This PSA will most likely be referenced for other overwintering sites in California, so it is really important to create a treatment design that will focus on roosting habitat protection and enhancement, as well as improving the quality and quantity of nectar plants. The design should include as much detail and justification as possible to use as a guide for other sites.

Please let me know if you have any questions on my comments.

Thank you so much, Brandon,

Deb

Debora Kirkland, Fish & Wildlife Biologist
US Fish and Wildlife Service
Ventura Fish & Wildlife Office
2493 Portola Road Suite B
Ventura, California 93003
debora_kirkland@fws.gov

Sanderson, Brandon@CALFIRE

From: Kirkland, Debora L <debora_kirkland@fws.gov>
Sent: Tuesday, April 25, 2023 4:44 PM
To: Sanderson, Brandon@CALFIRE; Riley McFarland; spencer@us-ltrcd.org; Gee, Jonathan@CALFIRE; Steve Auten
Cc: bhiggins@hearst.com; Erickson, David@CALFIRE
Subject: Thank you for the Hearst PSA call today!

Warning: this message is from an external user and should be treated with caution.

Hello,

I appreciate the call today to discuss my comments on the Hearst PSA and learn more about the project.

Riley, thank you for revising the language about proposed allowable activities in avian nest buffers, chip depth and mosaic distribution near monarch roost areas to avoid or enhance monarch feeding areas, specific activities that are proposed/excluded inside avian nest buffers, the description of chip depth and mosaic placement in the Pico Creek Monterey pine stand to allow regrowth of herbaceous groundcover, and burn pile inspection by trained personal with stop work authority to detect California red-legged frogs prior to ignition.

And thank you for sending the PSA back to me for one more look.

Also, thank you for letting me know what the schedule is for submitting the PSA to the California Coastal Commission for 30 day review prior to the next scheduled Commission hearing. Please let me know who the Coastal Commission staff person is assigned to this project.

I am grateful to work with you all to provide input on what will most likely be a reference PSA for other projects throughout the State. I am especially interested to see how the prescription for the monarch roosting areas on San Simeon Point evolves over time as treatment phases are implemented and more is learned about how to protect and enhance these important resources.

Have a great rest of your week,

Deb

Debora Kirkland, Fish & Wildlife Biologist
US Fish and Wildlife Service
Ventura Fish & Wildlife Office
2493 Portola Road Suite B
Ventura, California 93003
debora_kirkland@fws.gov

Ventura Fish and Wildlife Office website

I am currently working from home and infrequently checking my office voicemail.
Please email me if you'd like to schedule a phone call or meeting. Thank you!

"Going to the woods is like going home"
John Muir

1

ATTACHMENT D: COASTAL VEGETATION TREATMENT STANDARDS (COASTAL VTS)

Hearst Ranch Forest Health Fuels Reduction Project

1. All projects shall comply with and carry out the requirements of the CalVTP PEIR, including use of approved treatment methods, treatment activities and all applicable standard project requirements (SPRs).

2. Project-Specific Analyses (PSAs) shall be submitted to the Executive Director of the California Coastal Commission (CCC) for review and approval for the purpose of coastal development authorization prior to conducting projects. Coordination between the project proponent and CCC shall occur as early as feasible in the design process in order to avoid delays related to Coastal Act consistency.

3. PSAs shall include clear problem and goal statements (i.e., overall project goals, fire prevention goals, ecological goals, etc.) associated with each project proposed pursuant to this Public Works Plan. These statements are intended to assist project proponents and CCC in developing mutual understanding of the potential impacts and benefits – both short and long term – for each project. It is expected that this information will be incorporated into item #6 of each PSA.

   Problem Statement:

   Forested landscapes across Coastal areas of California are undergoing significant change. The climate is changing, producing more extreme weather events, including longer periods of warmer and drier conditions interspersed with shorter periods of record precipitation. This, along with anthropogenic development (residential, commercial, agriculture) have imposed ecological stressors on California's native habitat and endemic species. Natural systems are at risk, and tree mortality and forest disease have taken immeasurable tolls on regional ecosystems and overall forest health. At the same time, drier site conditions and overstocked forests are displacing sensitive plant species, reducing biodiversity and affecting the suitability of these habitats for rare and special-status wildlife. Altered fire regimes and increased fuel loads are driving larger and more catastrophic wildfire. The result has generated damaging changes to ecosystems that require environmentally sensitive landscape-level treatments to redirect the path of changing climates and ecological conditions impacting coastal zone forests and surrounding communities.

   Goal Statement:

   This project supports the intent of the project forest health and fire prevention goals, California's climate goals, and the goals of the California Coastal Commission for Environmentally Sensitive Habitat Areas (ESHA) where ecological restoration treatment types may occur to:

   1. ***Proactively restore forest health, improve ecosystem resiliency, and conserve working forests by conducting ecologically-minded forest health and fuels reduction treatments.***

2. ***Protect state water supply sources by strategically implementing ecological restoration projects across priority watersheds.***
3. ***Encourage the long-term storage of carbon in forest trees and soils through the reduction of dense understory thus promoting larger healthier stands of mature trees.***
4. ***Minimize the loss of forest carbon from large, intense wildfires, through reduction of ladder fuels and brush resulting from years of fire suppression.***
5. ***Promote public safety, health, and welfare and protect public and private property through the implementation of ecologically restorative fuel reduction treatments in the Wildland-Urban Interface (WUI).***

The Pico Creek Monterey pine forest still holds ecologically resilient characteristics with an approximately 70-year-old Monterey pine stand including live oak and an understory made up of mostly toyon and other various hydrophytic species along Class III watercourses. Lack of low-intensity fire as well as the presence of tree diseases including dwarf mistletoe, western gall rust, and pitch canker, coupled with changing climates, has left the majority of this forest overstocked in the understory and at mid-range tree diameter classes. Treatment of the understory and diseased trees through mastication, pile and broadcast burning, hand pulling of noxious weeds, and targeted herbicide treatments for French broom, can reduce the severity of future wildfire events and maintain the vegetation "membership rules"[6] for Monterey pine in this area.

Ecologically restorative outcomes expected from this project will release a more vigorous and diverse forest and understory once the sunlight is allowed to penetrate the forest floor again. In addition, the forest growth that had been attributed to approximately 500 trees per acre will now be attributed to approximately 200 trees per acre of mid-range and larger diameter trees. Remaining trees will extend their heights and expand their crowns, becoming more vigorous and able to resist vegetation pattern transformations in the face of climate change while reducing the continuity of hazardous ladder fuels to the canopy.

4. In the coastal zone, vegetation treatment projects fall into two categories: (1) Forest Health projects (i.e., Ecosystem Restoration) and (2) Fire Prevention projects (i.e., Fuel Breaks and Wildland-Urban Interface). The purpose of forest health projects is to restore and enhance ecosystems, including preventing fire behavior to which the ecosystem is not adapted. The ecosystems that can be treated under this category include forested ecosystems as well as other ecosystems such as woodland and scrub dominated systems. The purpose of fire prevention projects is to protect existing structures and infrastructure, including access roads. Fire prevention projects shall be limited to the applicable defensible space requirement (which is typically 100 feet but can range to as much as 300 feet under specific

[6] Requirements to maintain membership rules at an alliance level under the second edition of the Manual of California Vegetation for redwoods

circumstances), unless accompanied by a clear rationale, provided by a qualified professional, as to why additional defensible space is required to protect existing structures and infrastructure.

Treatments proposed at San Simeon Point are predominantly focused on ecologically restorative fuels reduction activities designed to enhance existing sensitive habitat and restore natural recruitment of native vegetation by way of reducing excessive downed material that currently prevents regeneration. Ecologically restorative treatments at San Simeon Point are also expected to prevent or reduce the risk of catastrophic wildfire that would result in severe habitat loss.

The project area at Pico Creek is predominantly made up of Monterey pine forest where ecological restoration treatments will be conducted. The treatments proposed across both project sites are designed to produce an interconnectable mosaic pattern of treatment areas that, with ecologically sensitive treatments, focus on:

- ***Increasing the health and vigor of the forest by conducting understory thinning through mastication of Monterey pine trees, Monterey cypress, eucalyptus, and live oaks up to ~8 inches in diameter.***
- ***Removing dead and dying trees predominantly resulting from dwarf mistletoe, western gall rust, and pitch canker.***
- ***Prescribed burning to clear up additional understory and dead, dying, and diseased trees as needed and reintroduce fire to a landscape devoid of natural disturbance by fire.***
- ***Control of invasive species such as French broom.***
- ***Restoration of historic vegetation patterns where decadent and diseased forest conditions have changed the fuel regime and are actively converting sensitive forest systems and Environmentally Sensitive Habitat Areas (ESHA).***
- ***Additionally, treatments address broad scale forest health and ecosystem resilience factors, including habitat connectivity, water quality/quantity, carbon sequestration, and maintenance of rare species habitats by reducing competition and allowing the residual stand of larger trees and vegetative understory to grow in a more vigorous and resilient manner, better representing a time when fire occurred more frequently and at lower severities.***

5. In the coastal zone, environmentally sensitive habitat area (ESHA) is defined as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and that could be easily disturbed or degraded by human activities and developments (see Coastal Act Section 30107.5). Rarity determinations for habitats and species are made by CDFW, USFWS, and CNPS, and are

used to support a CCC ESHA determination.[7] In addition, an ESHA determination may be made on the basis of an area constituting 'especially valuable habitat' where it is of a special nature and/or serves a special role in the ecosystem, such as providing a pristine example of a habitat type or supporting important ecological linkages. The Coastal Act requires that ESHA be protected against any significant disruption of habitat values and only allows uses dependent on the ESHA resources within those areas (see Coastal Act Section 30240). It is anticipated that many of the Forest Health and Fire Prevention activities pursued within the coastal zones of these two counties will take place within natural communities that qualify as ESHA (e.g., Redwood forest, Monterey pine forest, Douglas-fir/tan oak forest, etc.).

The entirety of the proposed project area is considered ESHA, as defined by the CCC. The basis of this project is to conduct ecologically restorative treatments that promote the persistence and resiliency of the Monterey pine forest type as an environmentally sensitive habitat area through a myriad of protection, resource conservation, and avoidance measures outlined in the PSA.

6. In addition to the requirements of the CalVTP PEIR, the following standards shall also be met in the coastal zone:

    - Protect Ecosystem. Forest Health projects shall: (a) proactively restore and enhance ecosystems and forests, protect watersheds, and promote long-term storage of carbon through the minimization of forest carbon loss from large and intense wildfires; (b) restore and maintain vegetation cover to a threshold that reflects appropriate fire frequencies (i.e., fire-return intervals) on the landscape, considering estimated pre-European settlement conditions as well as future climate change, and the maintenance or improvement of ecosystem health; (c) maintain vegetation cover and composition to comply with the standards (membership rules) set forth in the second edition of the Manual of California Vegetation (MCV2) to avoid unintended habitat conversion; [8] and (d) provide for a mosaic of appropriate native plants by age, size, and class that support the overall habitat. Fire Prevention projects shall meet all of the above requirements to the maximum extent feasible,

[7] CDFW defines natural communities, animals, and plants with a global or state ranking of 1, 2, or 3 as rare and the CCC typically finds these to be ESHA. CCC also typically considers plant and animal species listed by the federal and state endangered species acts (ESA and CESA, respectively) and/or identified under other special status categories (e.g., California Species of Special Concern) and/or identified by the California Native Plant Society (CNPS) as '1B' and '2' plant species as constituting ESHA. Coastal Act Section 30107.5 labels ESHA as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

[8] Membership rules are quantitative definitions used to assign field samples to vegetation types based on data analysis and can include species constancy, cover values, and the presence of indicator species.

while achieving overall project goals and necessary fire prevention goals, and any deviations shall be clearly explained and identified in the PSA.

The Hearst Ranch Forest Health Fuels Reduction project is under a CAL FIRE – Fire Prevention Program Grant and are proposing mechanical and manual treatments that, through modeling, show a positive carbon benefit over a 60 year modeling period through the Forest Vegetation Simulator utilizing representative data from Monterey pine in the Año Nuevo stand on Cal Poly Swanton Pacific Ranch[9] in Santa Cruz, CA. Forest modeling was conducted through the federal Forest Vegetation Simulator[10] program and showed that most ecologically restorative treatments in these vegetation types that focus on understory thinning from 8-12 inches in tree diameter show a positive carbon benefit (Santa Cruz County Forest Health Grant, A Collaborative Approach, 2019[11]).

In addition, please refer to the CalVTP PSA for specifications that protect ecosystems. A summary is provided below:

- ***A full floral and faunal biological assessment and field survey will be conducted to avoid impacts to sensitive communities, habitats, and resources prior to project implementation.***
- ***An Archaeological Survey Report (ASR) will be completed for the project area prior to implementation. Reconnaissance-level archaeological surveying and noticing to the Native American Heritage Commission has been completed.***
- ***A geospatial and physical analysis of vegetation types was conducted across both project sites to determine what the major habitat types are and what major alliances shall be maintained. See Attachment C.***
- ***A pre-operational meeting shall be conducted with the contractor to discuss project implementation, special protection measures and any potential operational constraints regarding the conduct of this project that may impact sensitive resources.***
- ***The project will notify neighbors through posting 1-3 days before operations begin at a conspicuous location on the property fronting a public road and neighbors within 1500 feet will be notified by mail.***

[9] Cal Poly Swanton Pacific Ranch Continuous Forest Inventory. https://spranch.calpoly.edu/forestry-projects-and-research

[10] Forest Vegetation Simulator. https://www.fs.fed.us/fvs/

[11] Santa Cruz County Forest Health Grant, A Collaborative Approach, 2019. Approved California Climate – CAL FIRE – Forest Health Grant. Resource Conservation District of Santa Cruz County for contact http://www.rcdsantacruz.org/

- ***No heavy equipment operations shall occur within Class III Equipment Exclusion Zones. Equipment may travel through a Class III over existing crossings or at established equipment crossing locations along Class III streams. No Class I or Class II streams exist within the project area.***
- ***No heavy equipment operations on slopes greater than 50%. Mastication equipment may reach from an existing road to treat areas on slopes greater than 50%.***
- ***No equipment operations on unstable areas.***
- ***Follow-up work on reducing invasive species shall be conducted through handwork.***
- ***Following operations, areas will be monitored following the first rain event generating 1.5 inches in a 24-hour period.***
- ***All requirements of the PSA for prescribed burning shall be adhered to and any burn operations will be coordinated and conducted under CAL FIRE supervision.***

Biological Resource Avoidance Measures

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).

1. ***If any California Endangered Species Act (CESA) or Federally Endangered Species (ESA) listed plant or animal is encountered, operations shall cease within a minimum of 100 feet and the general area shall be avoided. CAL FIRE, Upper Salinas – Las Tablas Resource Conservation District, or their supervised designee shall be notified immediately. USFWS will be contacted.***

2. ***Nesting and bat roost surveys are required from February 1st to August 31st and shall be conducted within 7 days of any treatment operations in treatment areas by CAL FIRE, Upper Salinas – Las Tablas Resource Conservation District, or their supervised designee to determine if nesting activity is occurring.***

    a. ***Areas where nesting and bat roosts are found to occur shall have a buffer zone flagged in orange glo of 100 feet depending on the species needs. CAL FIRE, Upper Salinas – Las Tablas Resource Conservation District, or their supervised designee reserve the right to increase the buffer size as needed to protect sensitive species.***

    b. ***Disturbance of rookeries/nests/dens/roosts/nest cavities shall be avoided. If the Contractor identifies an active rookery/nest/den/roost/nest cavity, a no disturbance buffer of 100 feet should be established between the treatment activities and the active nest/den/roost/nest cavity so that nesting activities are not interrupted until an RPF or qualified biologist determines measures appropriate for the species. CAL FIRE, Upper Salinas – Las Tablas Resource Conservation District, or their supervised designee shall be advised immediately.***

    c. ***A buffer of 200 feet will be established during the nesting season for the active double-crested cormorant rookery identified on the San Simeon Point site. A qualified RPF, biologist, or biological technician will monitor the active cormorant rookery during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely. If breeding cormorants are showing signs of nest disturbance, additional avoidance strategies (increase buffer, modify treatment or defer treatment) will be implemented. No treatment activities will occur within 100 feet of the rookery during the non-nesting season, except to relocate dead downed vegetation outside of the buffer for further disposal.***

3. ***It is likely that contractors will encounter woodrat nests. Woodrat nests should receive a buffer of 5 – 10 feet. Woodrat nests may only be removed if***

necessary to access a portion of a treatment area otherwise inaccessible, or to reasonably pass from one treatment polygon to another.

a. Woodrat nests would only be removed if necessary to access a portion of a treatment area otherwise inaccessible, or to reasonably pass from one treatment polygon to another. Nest removal shall be avoided during the breeding season if feasible (January 1st – September 30th). If woodrat nests must be removed during the breeding season, they will be slowly removed by hand to determine if young are present. If young are present the nest material shall be replaced, and the nest left alone for 2-3 weeks at which time the nest can be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling.

4. Archaeological Resources – If evidence of archaeological or cultural resources are discovered during project operations, all operations will cease in the vicinity of the potential resource and the area shall be avoided. CAL FIRE, Upper Salinas-Las Tablas Resource Conservation District, or their supervised designee shall be notified immediately.

- Vegetation Removal Hierarchy. Except for prescribed fire project components, a vegetation removal hierarchy shall be identified and implemented for each project to obtain the vegetation cover threshold identified by a Registered Professional Forester or qualified professional as necessary while ensuring that unintended habitat conversion does not occur, and that vegetation cover is sufficient to support the project's ecological goals. In order of priority and application, the hierarchy shall be as follows: (1) thinning and removal of dead, dying and diseased foliage, shrubs (except that some snags should be retained to provide wildlife shelter, dens, etc.); (2) removal of invasive species; and (3) removal of native species that are not listed as endangered, threatened, rare, or otherwise especially valuable, with the end goal of having appropriate species composition in the plant community with a mix of vegetation age, height and density. In all cases, indicator species and diagnostic species appropriate to the habitat type shall be maintained in accordance with the standards (membership rules) set forth by the second edition of the Manual of California Vegetation (MCV2), with the intention of maintaining cover and composition consistent with meeting project ecological goals. For Fire Prevention projects, additional vegetation removal may be allowed if maintaining such vegetation consistent with project ecological goals would result in an unacceptable fire risk to existing structures and infrastructure, and the removal is the minimum necessary to protect existing structures and infrastructure. Any such additional removal shall be clearly explained and identified in the PSA. Lastly, if vegetation cover threshold goals, as articulated in the MCV2, cannot be met, then removal of endangered, threatened, rare or otherwise especially valuable species and habitats

shall be prohibited unless: such removal is critical to reduce the area's fire risk; removal is accompanied by restoration or enhancement such that the overall project provides net benefits to the habitat; and no other alternative exists that meets the project goals.

The Vegetation Removal Hierarchy was designed by multiple qualified resource professionals, including a Registered Professional Forester, to focus on thinning of dead, dying, and diseased trees, understory vegetation treatments, prescribed pile and broadcast burning, the retention of snags and downed woody debris, all to meet the membership rules of the second edition of the Manual of California Vegetation at the Alliance level for Monterey pine forests, Monterey cypress woodlands, and eucalyptus groves with existing sensitive monarch butterfly habitat. A pre-operational meeting shall be conducted to advise the contractors of all requirements of this project per the CalVTP Project Specific Analysis. See below for specific details on the Vegetation Removal Hierarchy for Hearst Ranch:

Tree Treatments

1. ***To create a healthier and more diverse stand, trees ≤8 inches Diameter at Breast Height (DBH) under an overstory canopy shall be removed to achieve a 15 – 20 foot spacing between retained Monterey pine trees under ≤8 inches DBH.***

2. ***Contractor shall follow this prioritized vegetative removal hierarchy system:***

    a. ***Priority 1: Reduce or remove excessive downed woody fuel loads by way of mastication, chipping, and/or prescribed pile burn treatments to reduce catastrophic fire risk and enhance existing habitat.***

    b. ***Priority 2: Remove Monterey cypress and eucalyptus trees ≤8 inches DBH, and Monterey pine trees ≤8 inches DBH infected with dwarf mistletoe, western gall rust, and/or pitch canker.***

    c. ***Priority 3: Remove oak trees ≤8 inches DBH to promote the regeneration, spacing, and resiliency of Monterey pine in Monterey pine dominated stands.***

        i. ***Following this treatment, each area should maintain a structural stand composition that represents a greater amount of healthy Monterey pines than oak trees where feasible in Monterey pine dominated stands.***
        ii. ***Micro stands of oak trees (with a radius of approximately 25 feet from the center) shall remain untouched by any treatments and be spaced approximately 75-100 feet apart when the frequency and composition of hardwood allows it.***

iii. *Contractor shall not remove any California buckeye or Douglas-fir trees if encountered.*
iv. *All live and healthy larger diameter trees should remain.*

d. *Consideration shall be given to maintaining a diversity of tree species in all areas where feasible.*

3. *To create a more healthy and diverse Monterey pine stand, trees ≤8 inches DBH that do not have an overstory canopy shall be spaced leaving approximately 15-20 foot spacing. Contractor shall follow the same tree removal hierarchy system under Item #2 in Tree Treatments.*

4. *Damage to residual trees shall be minimized to the greatest extent feasible.*

5. *Remove any standing dead trees ≤12 inches DBH.*

6. *Downed trees <12 inches DBH will be delimbed/chipped through mastication or an otherwise agreed upon method with the remaining trunks that cannot be chipped left in place unless several trees have created a piled concentration. In this case, the remaining tree trunks will be separated by at least 10 feet from any other logs and left on site.*

a. *Downed trees >12 inches DBH may be masticated for access around treatment areas but, should remain in place where feasible unless they create a significant fire hazard and shall be separated by at least 10 feet from any other logs and left on site.*

i. *Retain approximately 4 trees >12 inches DBH per acre that are at least 15 feet in length*

b. *Contractor shall consider maintaining an appropriate number of snags within the treatment areas. Snags should be retained at a minimum of 1-2 per acre.*

7. *A tree of any size considered dead or dying and/or a hazard or direct threat to public or personal safety or infrastructure may be removed.*

8. *Monarch roost trees identified by Xerces Society or a qualified biologist.*

9. *CAL FIRE, The Upper Salinas-Las Tablas Resource Conservation District, the San Luis Obispo County Community Fire Safe Council or their supervised designee reserve the right to reasonably adjust tree treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.*

Tree Pruning Treatments

1. ***Conifer trees >8 inches DBH will be pruned (live and dead limbs) up to a maximum height of 8 feet, except next to public road surfaces where the maximum pruning height is 12 feet. No pruning will be done to a height greater than 50% of total tree height. Only dead limbs on hardwoods may be pruned. Coast live oak (Quercus agrifolia) is the primary hardwood within the project area.***

2. ***Conifer limbs may be pruned with a masticator but pruned ends shall have a smooth appearance with no frayed material visible especially in areas visible to the public. Note: This may require follow-up handwork.***

3. ***In areas where damage to secondary lateral hardwood limbs is expected due to mechanical mastication, hardwoods shall be pruned by hand to facilitate access for mastication equipment and minimize damage to hardwoods species. Coast live oak (Quercus agrifolia) is the primary hardwood within the project area. It is expected that the amount of handwork will be minimal and focused on a few key areas occupied by larger coast live oaks. CAL FIRE, Upper Salinas-Las Tablas Resource Conservation District, the San Luis Obispo County Community Fire Safe Council, or their supervised designee will provide instruction on hardwood pruning techniques using recognized arboricultural guidelines.***

Understory Vegetation, Brush, and Shrub Treatments

1. ***Understory vegetation, brush, and shrubs under the drip lines of trees shall be cut and masticated leaving root systems intact for resprouting except:***

    a. ***The contractor shall not masticate, or remove through handwork, hydrophytic riparian species such as sedges, rushes, and California rose. Areas within the project sites containing hydrophytic species in proximity to Class III streams have been identified and flagged with EEZ buffers to the extent feasible.***

    b. ***Where significant stands of toyon or other dominant shrub types occur under the drip line of trees, Contractor shall maintain a component of these shrubs at a spacing between 75 – 100 feet for each species occurrence, whose shrub crown is approximately 15-25 feet wide. Spacing may be closer to 75 feet on flatter ground and 100 feet on steeper ground or completely removed to provide defensible space when in proximity to infrastructure or homes within treatment areas.***

2. ***Outside of the drip line of retained trees, brush and shrubs should be cut and masticated leaving root systems intact for resprouting to achieve a horizontal crown separation of approximately 50-75 feet. Spacing may be closer to 50 feet on flatter ground and 75 feet on steeper ground or completely removed to provide defensible space when in proximity to infrastructure or near homes within treatment areas. Remaining clumps of brush and shrubs should not exceed approximately 15-25 feet in diameter and will consist of healthy appearing specimens where feasible.***

    a. ***Consideration shall be given to maintaining a diversity of understory vegetation, brush, and shrub species in these areas to promote a vegetative structural mosaic across the project area.***

3. ***Damage to residual understory vegetation and brush shall be minimized to the greatest extent feasible.***

4. ***CAL FIRE, Upper Salinas-Las Tablas Resource Conservation District, the San Luis Obispo County Community Fire Safe Council, or their supervised designee reserve the right to reasonably adjust understory vegetation and brush treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.***

Treated Vegetation within Treatment Areas

1. ***Residual material i.e., masticated material or vegetative chips, shall be dispersed throughout the project area in a mosaic pattern, at variable depths, concentrating residual material in areas of equipment disturbance and, to the extent feasible, minimize residual material in forest gaps or openings where increased biodiversity of herbaceous understory regeneration is more likely. In general, residual material depths should average three inches (3") and should not exceed a depth of approximately 6 inches (6").***

    a. ***<u>San Simeon Point:</u> Residual material i.e., masticated material or vegetative chips, shall be spread throughout the forested areas in a mosaic pattern, at variable depths, concentrating residual material in areas of equipment disturbance. In general, residual material depths should average three inches (3") and should not exceed a depth of approximately 6 inches (6").***

    Areas outside of forested stands in adjacent grassland and shrubland where nectar providing shrub species are being promoted, residual material should be dispersed in a mosaic pattern, at variable depths. In general, residual material depths should average three inches (3")

and should not exceed a depth of approximately 4 inches (4"). If herbaceous nectar providing species are identified in these areas during botanical surveying, they will be flagged for retention and avoided during treatment activities to the extent feasible.

2. ***Excessive residual masticated material and/or vegetative chips shall not obstruct water flow in drainage features such as ditches and culverts. Such material shall be removed by the contractor prior to a forecasted 30% precipitation event or upon completion of operations, whichever occurs first.***

3. ***Residual masticated material and/or vegetative chips should be utilized to cover approximately 75% of any areas bared during operations and shall not be piled at the base of remaining trees.***

4. ***Upon completion of a treatment area the contractor shall ensure that all roads and publicly accessible trails are open and passable with respect to ranch operations.***

    a. ***Scattered debris is acceptable on the trail surface but not to the point that it creates any significant tripping hazards.***

5. ***Damage to residual trees and brush shall be minimized to the greatest extent feasible. If there is excessive damage to residual trees or brush, the contractor shall remove those specimens.***

6. ***Heights of cut stumps shall not exceed 6 inches above the ground. All cuts will be a flat or parallel cut to the ground and will have a smooth appearance with no frayed material visible.***

- Limit Herbicide Use. Herbicides shall be avoided to the maximum extent feasible and may be used only if such treatment activities are the least environmentally damaging, feasible alternative and will not result in significant adverse impacts to sensitive ecological resources (e.g., when used to control of invasive species). Projects shall adhere to CalVTP SPRs HAZ-5, 6, 7, 8, and 9.

  Herbicide use is proposed for application on French broom targeting specific areas where control for this invasive exotic is needed and shall adhere to the appropriate SPRs.

- Prescribed Herbivory Use. Prescribed herbivory may be allowed if it is found to be the least environmentally damaging feasible alternative to achieving project goals. Prescribed herbivory shall be conducted pursuant to an approved plan that ensures protection of habitat and other coastal resources, as documented in the PSA.

No prescribed herbivory is proposed for use as part of this CalVTP Project Specific Analysis.

- Control Invasive Species. Treatment activities and treatment types shall limit the spread of invasive species and prevent the spread of plant pathogens in all habitats, including those habitats that are not determined to be sensitive natural communities, riparian habitats, or oak woodlands subject to CalVTP SPRs BIO-4 and 9.

  Invasive species controls for French broom will utilize targeted herbicide application, hand pulling, cutting, and mowing.

- Limit Fencing. The use of wildlife-friendly fencing for prescribed herbivory activities subject to CalVTP SPR BIO-11 shall require adequate ground clearance for smaller species to avoid entrapment and/or entanglement.

  No fencing is proposed for installation as part of this CalVTP project.

- Accelerants. Accelerants shall only be allowed for use in prescribed fire applications. The use of accelerants that could significantly disrupt or degrade ESHA is prohibited.

  Accelerants are proposed for use as part of this CalVTP project to conduct prescribed burn treatments. All accelerants used for prescribed pile and broadcast burn treatments will comply with standards and approval guidelines set forth in the CalVTP PEIR.

- Soil Stabilization. The use of riprap and/or chemical soil stabilizers that could significantly disrupt or degrade ESHA is prohibited.

  No use of riprap and/or chemical soil stabilizers are proposed for use as part of this CalVTP project.

- Protect Coastal Public Access and Recreation. Forest Health projects and Fire Prevention projects shall ensure that coastal public access and recreational opportunities are preserved during project operations to the maximum extent feasible, including, but not limited to, minimizing trail closures, limiting the use of public parking spaces for staging operations, posting accessway signage and using flaggers, and designing construction access corridors in a manner that has the least impact on coastal public access. Following the completion of Forest Health projects and Fire Prevention projects, all impacted coastal public access and recreational amenities shall be restored to existing conditions, in a manner that maximizes coastal public access and recreation.

  Proposed project areas are located within the bounds of private property owned and managed by Hearst Holdings, Inc. The property possesses a conservation easement recorded in 2005 and held by the California Rangeland Trust.

Hearst Ranch provides permissive public access on San Simeon Point. Limited public access to San Simeon Point is permitted but revocable under the discretion of the Landowner and within the terms of a conservation easement enacted on the property in 2005.

Permissive public access on San Simeon Point will be suspended during treatment operations and restored at the discretion of the Landowner following treatment and when it is deemed safe to do so. Public access to Pico Creek is prohibited without prior consent from the Landowner.

Treatments are expected to enhance coastal public access, public safety, and overall aesthetics at San Simeon Point. Project areas at Pico Creek are not accessible to the public without landowner permission.

ATTACHMENT E: BIOLOGICAL RESOURCES SURVEY REPORT AND PROCEDURES

Biological Survey

San Simeon Point
Hearst Ranch Forest Health and Fuels Reduction Project

May 2023
Kevin Cooper
Resolute Associates

Executive Summary

Reconnaissance and protocol surveys in the San Simeon Fuels Reduction project detected the following sensitive species (other than Monterey pine and Monterey cypress) that require further attention during implementation:

- Compact cobwebby thistle in Unit 4 – flag and avoid.
- Seacliff buckwheat patch in Unit 3 – flag and avoid.
- Double-crested cormorant rookery in Unit 3 – 200-foot buffer; see appendix D of PSA.
- Overwintering monarch habitat in Units 1, 2, and 3. Protect; see app. F of PSA.
- Monarch nectaring plants in Units 3 and 4 – search for and preserve 50%.
- Breeding birds throughout project area – pre-work nesting survey during nesting season.
- Woodrat nests throughout project area – implementors will ID and avoid where possible.

Introduction and Purpose

This document reports the results of biological surveys at San Simeon Point (see Figure 1) of the Hearst Ranch Forest Health and Fuels Reduction Project (Auten Resource Consulting 2023). This project addresses excessive fuel loading, invasive plants, and diseased Monterey pines on a private parcel at San Simeon, California and proposes to treat the area using hand crews and a masticator to

cut and chip understory species, trees under 8" diameter at breast height, some larger diseased or hazardous trees, and a heavy load of fallen eucalyptus trees and branches to protect Hearst Winery and this sensitive Monterey pine habitat from catastrophic fire. This project is planned under the Cal Vegetation Treatment Program Programmatic Environmental Report (CalVTP PEIR) which requires that biological resources are surveyed and managed following guidelines that allow the project to be covered under this PEIR planning document.

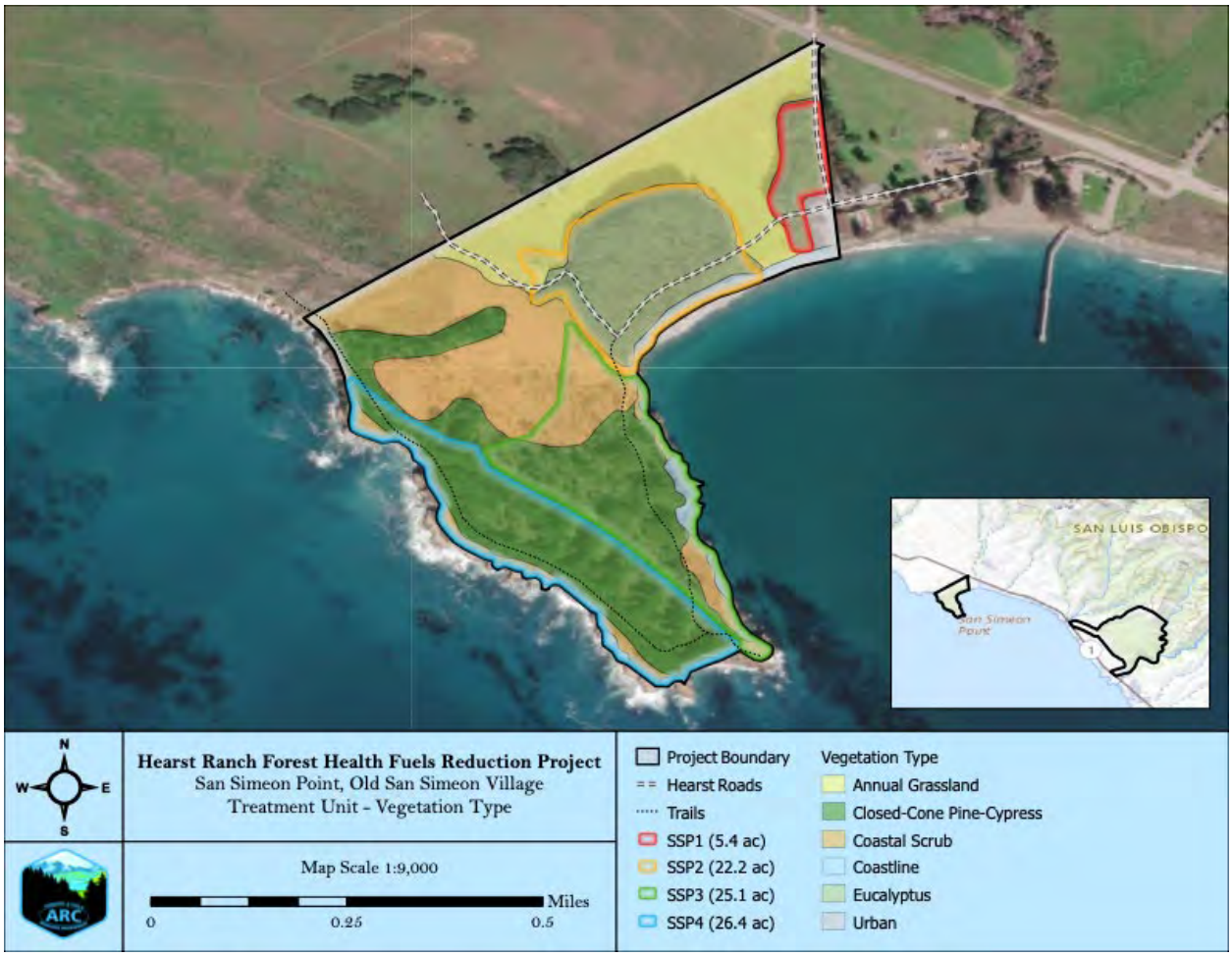


Figure 1. Draft map of treatment units (Auten Resource Consulting, 2023).

Methods

Reconnaissance level surveys based on existing literature and preliminary field visits elucidated sensitive species that may occur in the project area based on habitat type, location, and CNDDB data which is discussed in Auten (2023) appendix B. Subsequent field surveys then focused on detecting these potentially occurring sensitive species while still scanning for other sensitive species not previously known to occur in the area. During field surveys all species of plants and animals detected by sight and sound were noted while moving slowly through trails and cross-country through the area, with special emphasis on sensitive species detection. All habitat types in the units were examined. Focused protocol surveys were conducted for monarch butterflies.

Resolute Associates conducted field reconnaissance surveys with CalFire and Hearst Ranch on September 20, 2023 and with Xerces and CalFire biologist on November 16 and 30 of 2022. Protocol level surveys for monarchs were conducted during the November 2022 visits and several clusters were found and reported to Xerces (see Auten 2023 attachment F). This report gives recommendations

regarding the protection of nearby nectaring plants and those plants and any other sensitive plants were surveyed for in May 2023. Species seen during this survey are displayed in Appendix A.

Total annual rainfall for 2022-2023 at San Simeon was 35.1 inches, significantly higher than normal average of 20.6 inches. Cool weather and moist soils have extended the blooming season for most plants, and all plants expected to be in bloom were visible, indicating that the May 8 survey date was appropriate for detecting sensitive species of interest.

Results and Discussion

Unit SSP1
This unit is defined by the easternmost stand of glue gum in the project area adjacent to San Simeon Road (see figure 1). A cluster of overwintering monarchs were identified in this stand (see photo 1) but no other sensitive species were seen during surveys here. The overstory is completely dominated by blue gum (see photos 1 and 2) and the understory did not have a shrub layer and only a sparse herbaceous layer that was grazed in May of 2023 and that was dominated by non-native species such as Bermuda buttercup, ripgut brome, Italian thistle, and common chickweed, but there were some native California buttercup in the more moist soils on the northern edge of the unit.

Photo 1. Monarchs in Unit 1.

Photo 2. Overview of blue gum in Unit 1.

Photo 3. Grazed understory of Unit 1.

Measures to protect the structural components of the monarch stand that provide a wind block, dappled sunlight, and clustering trees will be implemented (see Auten 2023 attachment F). There were no monarch nectaring species identified in the area other than eucalyptus. Other than protecting the integrity of the monarch stand and monitoring for bird nesting there are no other recommendations to protect sensitive species in Unit SSP1.

Unit SSP2
Unit SSP2 is also a planted grove of blue gum that has much more fallen timber on the forest floor and more variation in canopy cover than Unit SSP1; some areas consist of old, large diameter trees and other areas are either open to the sky or have heavy second growth blue gum. The understory here does not have a well-established shrub layer, which is similar to Unit SSP1, but the herbaceous layer is much heavier than Unit SSP1 as of May of 2023, and dominated by Italian thistle, cape ivy, low growing poison oak, blackberry, Bermuda oxalis, ripgut brome, and one small patch of native fiesta flower. There did not appear to be any grazing in Unit SSP2, likely because large fallen trees and branches inhibit movement through this stand. No sensitive plants were seen here.
On September 20, 2022 turkey vultures and double-crested cormorants were roosting in the tops of the blue gums above the trail and along the southwest side of Unit SSP2, but neither of these birds were

seen during a May 2023 visit. Specific surveys to detect if either of these species is roosting or nesting should be conducted just prior to implementation and if occupied workers should follow the project specific requirements for a 200-foot buffer in the Cal VTP Project Specific Analysis (Auten 2023, p. 130).
Several overwintering monarch clusters were found in this stand during the fall of 2022 and Resolute Associates worked with the Xerces Society and California Fish and Wildlife to map these areas for avoidance and prepare implementation protection measures outlined in appendix F of the Cal VTP Project Specific Analysis (Auten 2023, p. 194).

No other sensitive plants or animals were noted in Unit 2.

Photo 4. Fallen blue gums amidst a mixed age stand.

Photo 5. Monarch overwintering site in Unit 2.

Photo 6. A dense non-native herbaceous layer under Unit 2 in May of 2023.

Unit SSP3

Unit SSP3 consists of several very large eucalyptus at the southern end of the unit (photo 7), scattered Monterey pine and Monterey cypress in the middle of the unit (photo 8), and a patch of coastal scrub in the northern third of the unit (photo 9). Dense thickets of poison oak 1-3 meters high dominate the shrub layer in the eucalyptus and pine/cypress areas, with varied lupine the dominant shrub and Mediterranean introduced grasses the dominant understory in the coastal scrub. The steep slopes east of the hiking trail and above the bluffs are covered in blackberry and poison oak. Several active double-crested cormorant nests were seen in the eucalyptus at the edge of the bluff on the May 2023 visit. A no-treatment buffer of 200 feet around this rookery will be established during the nesting season and a biologist will monitor the nest for signs of disturbance. A 100 foot no-treatment buffer will be placed around this site year-round.

Photo 7. Blue gum and poison oak in the southern end of Unit 3.

Photo 8. Monterey pine/cypress with poison oak in the central section of Unit 3.

Photo 9. Foreground shows varied lupine in the coastal scrub area in northern Unit 3.

Photo 10. Seacliff buckwheat in the coastal scrub area of Unit 3.

A patch of about six seacliff buckwheat plants were seen in the northern part of Unit SSP3 (figure 2 and photo 10). This is one of two host plants for the federally listed Smith's blue butterfly (*Euphilotes enoptes smithi*) which occurs along the Big Sur coast from Carbonera Creek in Santa Cruz County south to Punta Gorda 23 miles north of the project area. Because of the distance to a known population of Smith's blue butterflies and the small, isolated patch of seacliff buckwheat, it is not likely that Smith's blue occurs here. Seacliff buckwheat colonizes areas after disturbance and so the host plant would not be eradicated by project activities and may increase in cover in response to disturbance. If present, Smith's blue eggs, pupae, larvae, and adults would be on the seacliff buckwheat or in the organic litter below it. Avoiding disturbance in this small area would ensure there was no impact to the seacliff buckwheat and Smith's blue butterfly, even though it is not assumed to be here.

Two small clusters of overwintering monarchs were found in Unit 3 and have been mapped out with instructions to avoid impacts as noted in appendix F of the Cal VTP Project Specific Analysis (Auten 2023, p. 200).

Unit SSP4

Unit 4 occurs above the southwest facing shore of San Simeon Point (Figure 2) and consists of a dense rows of Monterey cypress immediately atop the bluff with fingers of planted rows of Monterey cypress and Monterey pine interspersed with annual grasses and dense poison oak (photos 11 and 12). There are also some live oaks in this area. Most of the understory cover consists of non-native plants such as Italian thistle, introduced grasses, poison hemlock, scarlet pimpernel, and common chickweed, but there were some scattered toyon, mulefat, coffee berry, and blackberry here.
There is a significant shift in habitat along the coastal bluff outside of the Unit that consists of short beach habitat plants growing along the open sandy soils and bluffs that will not be affected by the project.

Photo 11. Dense poison oak in Unit 4.

Photo 12. Open annual grassland area between rows of trees in Unit 4.

One sensitive plant, the compact cobwebby thistle, was found along a hiking trail above the bluffs in a forest opening (figure 2, photos 13 and 14) but no other specimens were found nearby. This particular area around the thistle would not be mechanically treated for fuel reduction because of its location in an open area but could be disturbed by foot or vehicle access into the work unit. The compact cobwebby thistle is listed as 1B.2 in the California Rare Plant Ranking system and is perennial. It is recommended that a small area around this plant be flagged for avoidance.

Photo 13. Sensitive compact cobwebby thistle along trail in Unit 4.

Photo 14. Hiking trail along bluff in Unit 4. Sensitive thistle is in foreground.

Figure 2. Google Earth imagery of the San Simeon Fuels Project area showing sensitive species found during May 2023 surveys.

There are no watercourses through any of the units in this project area which lies on the coastal plain. Hearst Creek enters San Simeon Harbor 250 meters to the east of the project area, but there will be no direct or indirect effect of the fuels work to this riparian/aquatic habitat or purely aquatic species because soils will remain protected by a layer of vegetation and woody debris, and because the work areas will not drain into Hearst Creek. The California red-legged frog and the western pond turtle may move though the work units but mitigation measures to protect these species have been incorporated into the project design.

The dusky-footed woodrat is not on the CNDDB list but does nest in Units 3 and 4 in patches of toyon and under the few oaks. These nests were not marked during surveys because that would require walking a regular grid pattern to identify nests and this was precluded by large, impenetrable 1-3-meter-high patches of poison oak. The most efficient way to avoid these nests is to teach the implementors to recognize these nest as they work their way into the thickets. Avoiding woodrat nests where possible increases the structural diversity of the treated unit and allows for an overall richer species diversity and abundance.

Many bird species were seen in the area (see appendix A) including a double-crested cormorant nesting rookery that was active in May of 2023. Special requirements for this nesting colony are described in Appendix D of the Project Specific Analysis (Auten 2023). Breeding bird surveys to avoid impacting nests should take place within one week of vegetation disturbance if done within the breeding season between March 15 and July 30.

Although not detected on this survey or on the CNDDB list, the California Condor, a federally endangered vulture that is being re-introduced into historic habitat along the California Central Coast could potentially occur in the project area. A condor release facility was established in 2015 at Rocky Butte about seven miles east of the project area, and condors regularly fly over the project area and although condors have not habitually roosted in the project vicinity and any future roosting is likely to be temporary. To avoid impacting condors the contractor must scan for roosting condors throughout the project operation and stay in contact with the Ventana Wildlife Society (VWS) and US Fish and Wildlife (USFWS) regarding locations of GPS tagged condors in the vicinity. If any condors are seen or known to be within ½ mile of the project activities, work should cease during their presence, and USFWS and VWS should be contacted. By following this procedure, impacts to the California Condor from this project can be avoided. By protecting the pines from catastrophic fire and disease, the long-term value of the project area for condor roosting is improved.

Overwintering monarchs require a nectar source during the winter and spring months in order to breed. Some preferred nectaring plants are growing on site presently including coffee berry, toyon, mule fat, and seaside fleabane. None of these species grow in large patches in the project area; they are scattered widely throughout the non-eucalyptus areas in Units 3 and 4, often intermixed with dense patches of poison oak. Coffee berry, coyote bush, and toyon are likely to resprout if cut, but if some were left intact throughout the project, they could provide a continuity of nectar to monarchs. As with the woodrat nests, a thorough grid search through Units 3 and 4 were not possible due to dense poison oak, so the most efficient way to protect some toyon, coffee berry, and coyote bushes it to teach the implementors to recognize these species and preserve some of them intact.

Literature cited.

Auten Resource Consulting, 2023. Hearst Ranch Forest Health and Fuels Reduction Project, Project Specific Analysis, An Addendum to the CalVTP PEIR CalFire San Luis Obispo Unit, San Luis Obispo, CA.

California Board of Forestry and Fire Protection, 2019. Cal Vegetation Treatment Program Programmatic Environmental Report

California Natural Resources Agency Department of Fish and Wildlife, 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.

Appendix A: Species Detected During Survey

Species seen during San Simeon Point Survey, May 8, 2023				
	Scientific Name	**Common Name**	**Status**	**Sensitive?**
Plants				
	Achillea millefolium	Squirreltail	Native	NO
	Amsinckia intermedia	Fiddleneck	Native	NO
	Anagallis arvensis	Scarlet pimpernel	Introduced	NO
	Artemesia dracunculus	Tarragon	Introduced	NO
	Artemisia californiana	California sage	Native	NO
	Artemisia douglasiana	mugwort	Native	NO
	Avena barbata	Wild oat	Naturalized	NO
	Baccharis pilularis	Coyote bush	Native	NO
	Brassica nigra	Black mustard	Introduced	NO
	Bromus diandrus	Ripgut	Introduced	NO
	Calandrinia menzeseii	Red maids	Native	NO
	Calystegia macrostegia	Morning glory	Native	NO
	Camissoniopsis micrantha	Spencer primrose	Native	NO
	Cardionema ramosissimum	Sandcarpet	Native	NO
	Carduus pycnocephalus	Italian thistle	Invasive	NO
	Carpobrotus edulis	Iceplant	Introduced	NO
	Circium occidentale var. compactum	Compact cobwebby thistle	Native	YES - 1B.2
			35°38.2636’	121°11.8983’
	Circium vulgare	Bull thistle	Invasive	NO
	Claytonia perfoliata	Miner's lettuce	Native	NO
	Erigeron glaucus	Seaside daisy	Native	NO
	Eriogonum parvifolium	Seacliff buckwheat	Native	NO
	Erodium cicutarum	Filaree	Introduced	NO
	Eucalyptus spp.	Eucalyptus	Invasive	NO
	Frangula californica	Coffee berry	Native	NO
	Galium aparine	Catchweed Bedstraw	Introduced	NO
	Heteromeles arbutifolia	toyon	Native	NO
	Lupinus bicolor	Bicolor lupine	Native	NO
	Lupinus variicolor	Varied lupine	Native	NO
	Malva spp.	Mallow	Native	NO
	Marah fabacea	Manroot	Native	NO
	Marubium vulgare	White horehound	Invasive	NO
	Oxalis pes-caprae	Sourgrass	Native	NO
	Pholistoma auritum	Fiestaflower	Native	NO

	Pseudo Gnaphalium stramineum	Cottonbatting plant	Native	NO
	Quercus agrifolia	live oak	Native	NO
	Ranunculus californicus	California buttercup	Native	NO
	Raphanus raphanistrum,	wild radish	Invasive	NO
	Rubus ursinus	Blackberry	Native	NO
	Rumex acetosella	Sheep's Sorrel	Native	NO
	Sambucus nigra	Elderberry	Native	NO
	Scrophularia californica	California figwort	Native	NO
	Senecio mikanioides	Cape ivy	Invasive	NO
	Silybum marianum	Milk thistle	Invasive	NO
	Stachys sylvatica	Hedge nettle	Native	NO
	Stellaria media	Common chickweed	Invasive	NO
	Toxicodendron diversilobum	Poison oak	Native	NO
	Trifolium angustifolium	Narrow-leaved clover	Introduced	NO
	Trifolium campestre	Hop trefoil	Introduced	NO
	Vicia spp.	Common vetch	Introduced	NO
	Vinca minor	Periwindkle	Invasive	NO
Birds				
	Aphelocoma californica	California scrub jay	Native	NO
	Callipepla californica	Valley quail	Native	NO
	Calypte anna	Anna's hummingbird	Native	NO
	Cathartes aura	Turkey vulture	Native	NO
	Corvus brachyrhynchos	American crow	Native	NO
	Corvus corax	Common raven	Native	NO
	Cyanocitta stelleri	Stellars Jay	Native	NO
	Haemorhous mexicanus	House finch	Native	NO
	Haemorhous purpureus	Purple finch	Native	NO
	Haliateetus leucocephalus	Bald eagle -flying over/no nesting	Native	YES
	Junco hyemalis	Dark-eyed junco	Native	NO
	Lamprotornis hildebrandtii	Starling	Invasive	NO
	Leuconotopicus villosus	Hairy woodpecker	Native	NO
	Melanerpes formicivorus	Acorn woodpecker	Native	NO
	Melospiza melodia	Song sparrow	Native	NO
	Nannopterum auritus	Double-crested cormorant	Native	Yes-nesting
	Pipilo maculatus	Spotted towhee	Native	NO
	Psaltriparus minimus	Bushtit	Native	NO

	Spizella passerina	Chipping sparrow	Native	NO
	Tachycineta thalassina	Violet-green swallow	Native	NO
	Thryomanes bewickii	Bewick's wren	Native	NO
	Troglodytes aedon	House wren	Native	NO
	Zenaida macroura	Mourning dove	Native	NO
Animals				
	Odocoileus hemionus columbianus	Black-tailed deer	Native	NO
	Sceloporus occidentalis	Western fence lizard	Native	NO
	Pituophis catenifer	Gopher snake	Native	NO

Biological Survey

Pico Creek Monterey Pine Stand
Hearst Ranch Forest Health and Fuels Reduction Project

May 2023
Kevin Cooper
Resolute Associates

Executive Summary

Reconnaissance and protocol level surveys in the Pico Fuels Reduction project detected the following sensitive species (other than Monterey pine and Monterey cypress) that are assumed to occur based on recent records or were seen on site and require further attention during implementation:

- Cambria morning glory (CRPR 4.2) is common in the surrounding grasslands but will not be impacted by project activities.
- Breeding birds throughout project area – pre-work nesting survey during nesting season which will be very time consuming in this exceptionally thick vegetation.
- Woodrat nests throughout project area – implementors will ID and avoid where possible.
- Possibility of California red-legged frogs moving into all units of the upland areas from Pico Creek – follow guidelines in the PSA.
- Steelhead and other sensitive aquatic organisms inhabit the north fork of Pico Creek – prevention of off sediment production from work activities required in Units 1 and 3.
- No sensitive plants were found within the work units except the Monterey Pine.
- Other animal species that are assumed to occur in the project area are discussed in the Hearst Ranch Forest Health and Fuels Reduction Project Specific Analysis (Auten Resource Consulting 2023).

Introduction and Purpose

This document reports the results of biological surveys at Pico Creek (see Figure 1) of the Hearst Ranch Forest Health and Fuels Reduction Project. This project addresses excessive fuel loading, invasive plants, and diseased Monterey pines on a private parcel immediately north of San Simeon, California and proposes to treat the area using hand crews and a masticator to cut and chip understory

species, trees under 8" diameter at breast height, some larger diseased or hazardous trees, to protect the community of San Simeon and this sensitive Monterey pine habitat from catastrophic fire. This project is planned under the Cal Vegetation Treatment Program Programmatic Environmental Report (CalVTP PEIR) which requires that biological resources are surveyed and managed following guidelines that allow the project to be covered under this PEIR planning document.

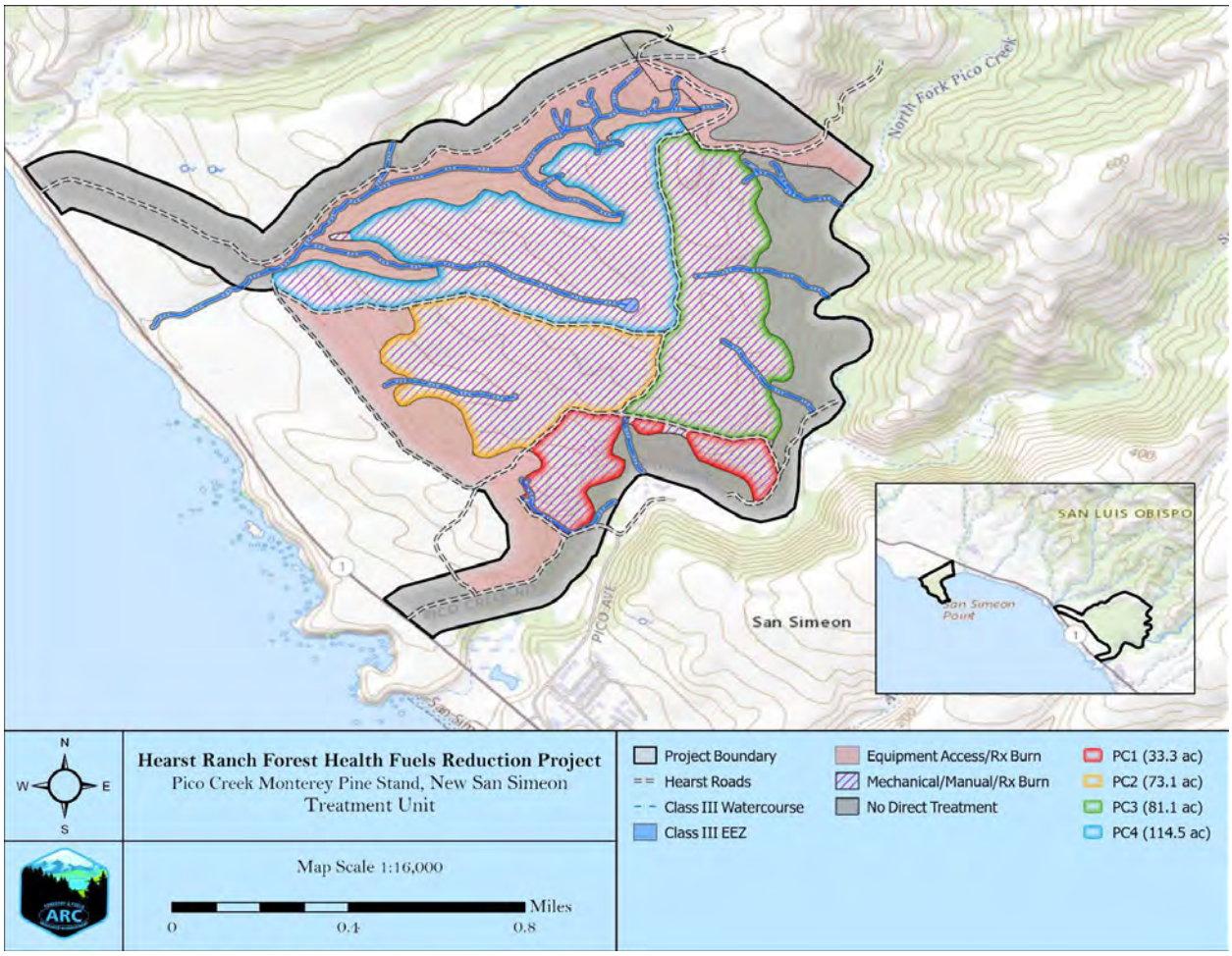


Figure 13. Draft map showing Pico treatment units (Auten Resource Consultants 2023).

Methods

Reconnaissance level surveys based on existing literature and preliminary field visits elucidated sensitive species that may occur in the project area based on habitat type, location, and CNDDB data which is discussed in Auten (2023) appendix B. Subsequent field surveys then focused on detecting these potentially occurring sensitive species while still scanning for other sensitive species not previously known to occur in the area. During field surveys all species of plants and animals detected by sight and sound were noted while moving slowly through trails and cross-country through the area, with special emphasis on sensitive species detection. All habitat types in the units were examined.

Resolute Associates conducted field reconnaissance surveys with CalFire and Hearst Ranch on September 20, 2023 and on May 10 and 11, 2023 Resolute conducted protocol level surveys for plants by hiking over 12 miles of roads, game trails, and cross country into any areas that were accessible on foot. Large portions of this unit are covered with a mix of large fallen Monterey Pine and dense poison oak thickets that are impassible without mechanically cutting or moving vegetation which limited the amount of area that could be surveyed. Initial attempts to penetrate these thickets revealed that they were dense enough to preclude understory growth and that most plant species could then be identified

with a view from above by the naked eye or using binoculars and UAV photos, so each habitat type was examined as extensively as possible on foot and with binoculars and the aid of a drone to look further into inaccessible areas. Each habitat type was relatively uniform in species composition and after two days of surveys no new plant species were seen. Although not every acre was accessed Resolute feels that it is unlikely that new species would be detected with further exam and that the surveys conducted are adequate to detect sensitive plant species.

Total annual rainfall for 2022-2023 at San Simeon was 35.1 inches, significantly higher than normal average of 20.6 inches. Cool weather and moist soils have extended the blooming season for most plants, and all plants expected to be in bloom were visible, indicating that the May 10-11 survey date was appropriate for detecting sensitive species of interest. No standing or flowing water within the work areas was seen. Water was flowing in Pico Creek and in the drainage that flows out from the northwest corner of the Pico treatment area, but only outside of the treatment area.

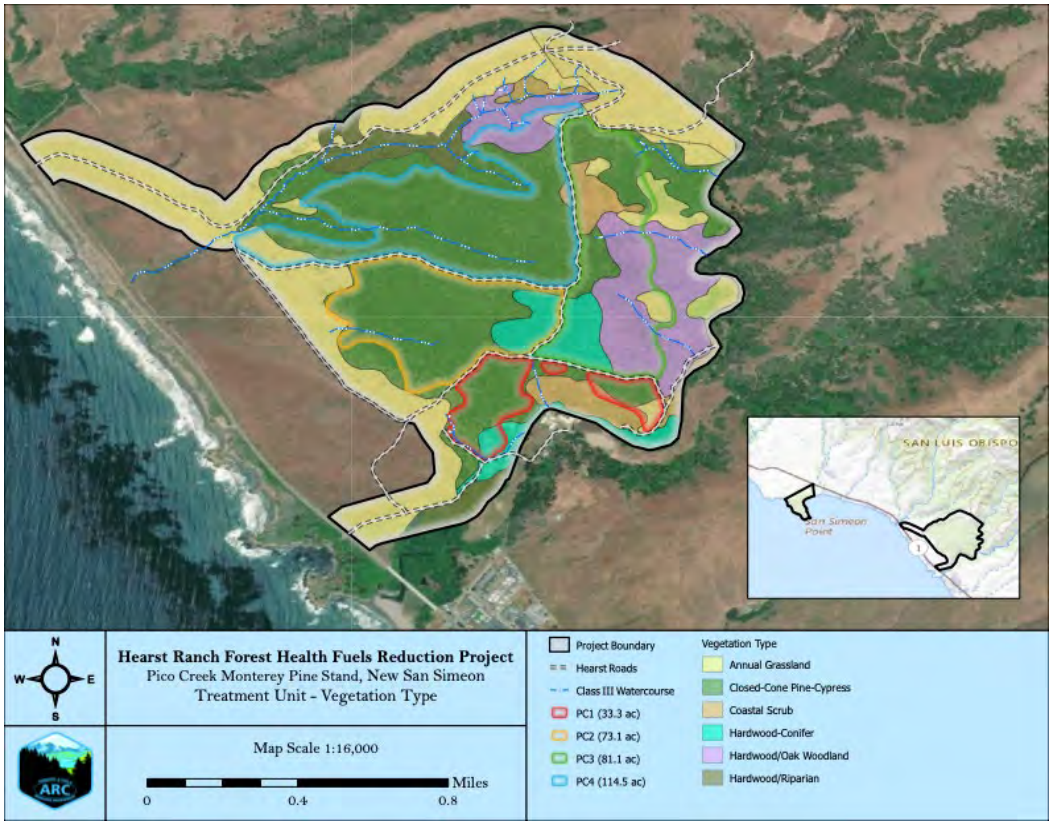


Figure 14. Draft map of Pico treatment units showing general habitats (Auten Resource Consultants 2023).

Results and Discussion

Unit PC1

Photo 1. Unit 1 in foreground above Pico Creek.

Unit 1 lies along the top of the mesa edge above Pico Creek (Figure 1 and photos 1-3) and is bisected by a large patch of shrub dominated by poison oak, toyon, and California sage with a high dead fuel component. The forested area here is the most open of the Units and dominated by Monterey pines on the southwest side with live oaks dominating the overstory on the northwest end. The understory of the entire unit is dominated by poison oak and annual grasses. Pico Creek flows to the south of this unit and is within 75-200 meters of the fuel reduction work area at the bottom of a 10% slope that runs for 250 meters from top to bottom. No sensitive plants or animals were found in Unit 1 surveys but Pico Creek is known to harbor the south-central California coast distinct population segment of steelhead, California red-legged frogs, the western pond turtle, and the tidewater goby. A discussion of potential impacts to these species and mitigation measures are discussed in the PSA by Auten (2023).

Photo 3. Monterey pine dominated stand at southern end of Unit 1.

Photo 2. Oak dominated forest at northern end of Unit 1.

Unit PC2

Photo 4. Monterey pines in Unit 2.

Across the western side of Unit 2 of the Pico area the overstory is dominated by relatively dense Monterey pines with a poison oak dominated shrub layer. In the most easterly area, the overstory is dominated by live oak with some open grass and a dense poison oak understory. To the south of Unit 1 the habitat transitions into annual grasslands that grew densely and over 1 meter tall this spring in response to abundant winter rains. The Cambria morning glory was seen in the grassland here and is a somewhat sensitive plant (CRPR 4.2) but will not be disturbed by project activities.

The drainage that is shown emanating from the western end of this unit was gullied from high winter rains but no water was seen there in May of 2023 and there was no riparian vegetation along this drainage. California red-legged frogs could move through Unit 2 (and all of the other Pico units) during wet periods when they may move overland. No other sensitive plants or animals were noted in Unit 2.

Photo 5. Open oaks in northern Unit 2.

Unit PC3

Photo 6. Aerial view of the south end of Unit 3.

Unit 3 is the most diverse within the Pico treatment area and consist of vegetation patches dominated by live oak along the southwest end, very large toyon trees up to 30' + high along the east facing slope above the North Fork of Pico Creek and along the southeastern boundary of Unit 3, open grasslands, a large stand of toyon shrub along the western edge, and dense stands of Monterey Pine in the northwest. The North Fork of Pico Creek flows along the eastern boundary 300-400 meters below the Unit 3 boundary. There are several patches of almost pure poison oak over 2 meters high and two to five acres in size found within Unit 3. Unit 3 is above the sensitive riparian area of Pico Creek and has the same concerns about steelhead, California red-legged frogs, and western pond turtles as in Unit 1.

Photo 7. Oak, toyon, and shrubs with some grass openings in the northern part of Unit 3.

Unit PC4

Photo 9. Northern end of Unit 4.

The overstory of Unit 4 is dominated by Monterey pines except for the most northeastern end which has a high percentage of live oak and toyon in the overstory. As in the other units, immense thickets of poison oak and toyon with some small patches of annual grass grow in the understory, and foot access is very limited. A drainage flows outside of the work unit to the west with very dense willow and poison oak blocking almost all light and access to the drainage that had only limited water in it as of May 2023, even after one of the wettest winters in three decades. A large culvert with a drop-off near Highway 1 and the normally dry conditions in past years probably preclude this creek from supporting steelhead. There may be California re-legged frogs and western pond turtles here but breeding and feeding pools in the creek for either species were not detected. Project activities will not likely affect this creek because no work will take place in this habitat, there will be very little soil disturbance, and any sediment that may be exposed will be captured by extremely dense vegetation on the slope above the creek. Exceptionally thick patches of poison oak have grown in this riparian zone with impenetrable thickets and vines up to 20 meters tall growing on large Monterey pines. No sensitive plants were seen in Unit 4.

Photo 8. Dense poison oak and other shrubs in the northwest side of Unit 4.

<u>All Pico Units</u>

The dusky-footed woodrat occurs abundantly in all units of the Pico treatment area. These nests were not marked during surveys because that would require walking a regular grid pattern to identify nests and this was precluded by large, impenetrable 1-3-meter-high patches of poison oak. The most efficient way to avoid these nests is to teach the implementors to recognize these nest as they work their way into the thickets. Avoiding woodrat nests where possible increases the structural diversity of the treated unit and allows for an overall richer species diversity and abundance.

Breeding bird surveys to avoid impacting nests should take place within one week of vegetation disturbance if done within the breeding season between March 15 and July 30. Access into the units to examine them for breeding birds will be very challenging given the limited access and visibility, and the nesting density is likely relatively high based on the complex structural diversity here, so these surveys could take longer than expected, and will need to be coordinated with the implementation crews so that as the area is cleared of vegetation and access in increased, the biologists will be able to move into new areas scheduled for fuel reduction.

Although not detected on this survey or on the CNDDB list, the California Condor, a federally endangered vulture that is being re-introduced into historic habitat along the California Central Coast could potentially occur in the project area. A condor release facility was established in 2015 at Rocky Butte about seven miles east of the project area, and condors regularly fly over the project area and although condors have not habitually roosted in the project vicinity and any future roosting is likely to be temporary. To avoid impacting condors the contractor must scan for roosting condors throughout the project operation and stay in contact with the Ventana Wildlife Society (VWS) and US Fish and Wildlife (USFWS) regarding locations of GPS tagged condors in the vicinity. If any condors are seen or known to be within ½ mile of the project activities, work should cease during their presence, and USFWS and VWS should be contacted. By following this procedure, impacts to the California Condor from this project can be avoided. By protecting the pines from catastrophic fire and disease, the long-term value of the project area for condor roosting is improved.

Literature cited.

Auten Resource Consulting, 2023. Hearst Ranch Forest Health and Fuels Reduction Project, Project Specific Analysis, An Addendum to the CalVTP PEIR CalFire San Luis Obispo Unit, San Luis Obispo, CA.

California Board of Forestry and Fire Protection, 2019. Cal Vegetation Treatment Program Programmatic Environmental Report

California Natural Resources Agency Department of Fish and Wildlife, 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.

Appendix A: Species Detected During Survey

List of all species seen during Pico Unit Survey, May 10-11, 2023

	Scientific Name	Common Name	Status	Sensitive?
Plants				
	Achillea millefolium	Squirreltail	Native	NO
	Anagallis arvensis	Scarlet pimpernel	Introduced	NO
	Artemisia douglasiana	mugwort	Native	NO
	Avena barbata	Wild oat	Naturalized	NO
	Baccharis pilularis	Coyote bush	Native	NO
	Bellardia trixago	Mediterranean linseed	Invasive	NO
	Brassica nigra	Black mustard	Introduced	NO
	Briza maxima	Quaking grass	Introduced	NO
	Briza minor	Quaking grass	Introduced	NO
	Bromus diandrus	Ripgut	Introduced	NO
	Bromus hordaceous	Soft chess	Introduced	NO
	Calandrinia menzeseii	Red maids	Native	NO
	Calystegia macrostegia	Morning glory	Native	NO
	Calystegia subacaulis ssp. episcopalis	Cambria morning glory	Native	YES CRPR 4.2
	Carduus pycnocephalus	Italian thistle	Invasive	NO
	Castilleja affinis	Indian paintbrush	Native	NO
	Claytonia perfoliata	Miner's lettuce	Native	NO
	Diplacus aurantiacus	Sticky monkeyflower	Native	NO
	Erodium cicutarum	Filaree	Introduced	NO
	Eryngium aristulatum	California eryngo	Introduced	NO
	Frangula californica	Coffee berry	Native	NO
	Galium aparine	Catchweed Bedstraw	Introduced	NO
	Heteromeles arbutifolia	toyon	Native	NO
	Hypochaeris radicata	Common cat's ear	Invasive	NO
	Juncus bufonius	Toad rush	Native	NO
	Juncus patens	Common rush	Native	NO
	Leymus condensatus	Giant wildrye	Native	NO
	Lonicera hispidula	Honeysuckle	Native	NO
	Lupinus bicolor	Bicolor lupine	Native	NO
	Marah fabacea	Manroot	Native	NO
	Oxalis pes-caprae	Sourgrass	Native	NO
	Plantago spp.	Plantain	Introduced	NO
	Poa secunda	Pacific bluegrass	Native	NO
	Pteridium aquilinum	Bracken fern	Native	NO

	Quercus agrifolia	live oak	Introduced	NO
	Raphanus raphanistrum,	wild radish	Invasive	NO
	Ribes speciosum	Fuschia-flowered gooseberry	Native	NO
	Rubus ursinus	Blackberry	Native	NO
	Rumex acetosella	Sheep's Sorrel	Native	NO
	Sambucus nigra	Elderberry	Native	NO
	Senecio mikanioides	Cape ivy	Invasive	NO
	Sisyrinchium bellum	Western blue-eyed grass	Native	NO
	Stachys bullata	Hedge nettle	Native	NO
	Toxicodendron diversilobum	Poison oak	Native	NO
	Trifolium angustifolium	Narrow-leaved clover	Introduced	NO
	Trifolium campestre	Hop trefoil	Introduced	NO
	Triphysaria eriantha	Johnnytuck	Native	NO
	Vicia spp.	Common vetch	Introduced	NO
Birds				
	Aphelocoma californica	California scrub jay	Native	NO
	Bubo virginianus	Great-horned owl	Native	NO
	Buteo jamaicensis	Red-tailed hawk	Native	NO
	Callipepla californica	Valley quail	Native	NO
	Calypte anna	Anna's hummingbird	Native	NO
	Cathartes aura	Turkey vulture	Native	NO
	Certhia americana	Brown creeper	Native	NO
	Chamaea fasciata	Wrentit	Native	NO
	Corvus brachyrhynchos	American crow	Native	NO
	Corvus corax	Common raven	Native	NO
	Cyanocitta stelleri	Stellars Jay	Native	NO
	Empidonax difficilis	Pacific slope flycatcher	Native	NO
	Haemorhous mexicanus	House finch	Native	NO
	Haemorhous purpureus	Purple finch	Native	NO
	Haliateetus leucocephalus	Bald eagle	Native	NO
	Junco hyemalis	Dark-eyed junco	Native	NO
	Lamprotornis hildebrandtii	Starling	Invasive	NO
	Leuconotopicus villosus	Hairy woodpecker	Native	NO
	Melanerpes formicivorus	Acorn woodpecker	Native	NO
	Meleagris gallopavo	American turkey	Native	NO
	Melospiza melodia	Song sparrow	Native	NO
	Patagioenas fasciata	Band-tailed pigeon	Native	NO
	Pipilo maculatus	Spotted towhee	Native	NO

	Psaltriparus minimus	Bushtit	Native	NO
	Spizella passerina	Chipping sparrow	Native	NO
	Tachycineta thalassina	Violet-green swallow	Native	NO
	Thryomanes bewickii	Bewick's wren	Native	NO
	Troglodytes aedon	House wren	Native	NO
	Vireo huttoni	Hutton's vireo	Native	NO
	Zenaida macroura	Mourning dove	Native	NO
Animals				
	Odocoileus hemionus columbianus	Black-tailed deer	Native	NO
	Canis latrans	Coyote	Native	NO
	Junonia grisea	Gray buckeye	Native	NO
	Lynx rufus	Bobcat	Native	NO
	Papilo eurymedon	Pale swallowtail	Native	NO
	Pituophis catenifer	Gopher snake	Native	NO
	Sceloporus occidentalis	Western fence lizard	Native	NO

ATTACHMENT F: SAN SIMEON POINT MONARCH OVERWINTERING HABITAT MANAGEMENT REPORT AND SMOKE MITIGATION GUIDANCE

San Simeon Point Monarch Overwintering Habitat Management Report

Prepared by Ashley Fisher, Xerces Society
Reviewed and Edited by Auten Resource Consulting
February 2023

Management Report Overview:

Section 1: Biological Background

1.1 General Biology and Migration Cycle

Monarchs are a migratory insect. In the summer months, they live and breed in the mid- to high latitudes of the United States and Southern Canada, typically living 3-5 weeks (WAFWA, 2019). However, the last generation of summer goes through physiological changes that allow them to migrate up to 3,000 km south in the fall. The eastern monarch population, which occupies the land east of the Rocky Mountains, overwinters in high elevation forests of Mexico, while the western population occupies coastal tree groves along the Pacific coastline from Mendocino County to Baja California (Urquhart & Urquhart, 1977; Xerces Society, 2022). In these groves of trees, termed **overwintering sites**, monarchs coalesce into small aggregations, or larger **clusters** which are tightly packed groups of butterflies that hang off branches and foliage at various heights within the groves. Clustering behavior persists until late winter or early spring (Feb-March). With the return of longer days and warmer weather, the migrants disperse and reproduce, laying eggs on milkweed. The overwintering migrants' offspring then continue the migration inland and north. Several generations pass until late summer when the migration south begins again (WAFWA, 2019; Brower and Malcolm, 1991).

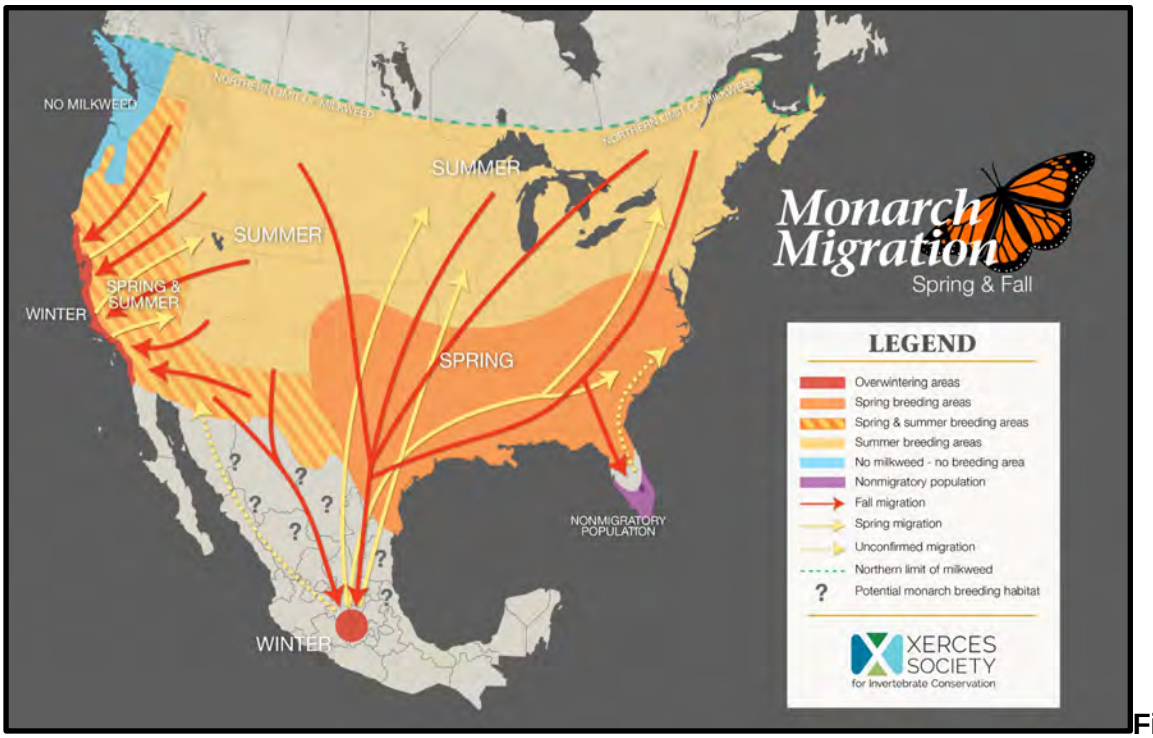


Figure 1. Demonstrates the monarch migration cycle in the Western United States, with overwintering areas on the west coast identified (in red).

1.2 Importance of Overwintering Sites to the Western Population

Overwintering sites are a critical habitat in order for monarchs to complete their annual migration cycle. Almost the entire population is concentrated in the relatively small area of these tree groves for 3-5 months. For example, Pismo beach, a large site, contained approximately 8.4% of all overwintering monarchs counted in 2021 (WMTC, 2022). As such, the clusters of monarchs are extremely vulnerable to large perturbations while in residence. For example, a major storm can itself be lethal to monarchs with rain and freezing temperatures or can result in the downing of branches and whole trees crushing the monarchs on and around them (Calvert et al., 1983). The monarchs that do survive until spring reproduce and serve as the foundational population of the spring and summer generations. Therefore, overwintering sites are vital for population maintenance from year-to-year (Pelton et al., 2019).

1.3 Important Overwintering Site Characteristics and Behavior

Overwintering sites are defined as an area where monarch butterflies historically or currently in use for cluster on trees during the fall and/or winter within overwintering habitat (red in Figure 1). The grove of trees is thought to produce a microclimate that is necessary for monarch survival (WAFWA 2019). Climatic characteristics of an overwintering grove include protection from wind and storms, dappled sunlight, high humidity, and temperatures that rarely drop below freezing. Access to water and nectar sources is also beneficial, as migrants utilize these resources frequently throughout the winter.

A key component of any overwintering site are the trees on which monarchs cluster in and around. These not only provide the substrate for the monarchs to cluster, but also provide wind and storm protection. Monarchs have been observed using a variety of species common on the California coast, such as Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), and several non-native eucalyptus species. They do not exhibit preference for any particular species, and research has found many successful groves contain a mix of several species present (Griffiths & Villablanca, 2015); however, the predominance of eucalyptus along the coast makes this species the most frequently occupied by clustering monarchs.

Though there does not appear to be a preference for certain tree species, clusters will often form in the same locations within a grove, and even to the exact same trees that have been used in previous years. Due to this fidelity, ***core zones***, or the general area within an overwintering site that contains trees where monarchs cluster, are the most sensitive and of the highest priority for protection. Core zones can contain one or many clusters of monarchs.

Overwintering clusters are variable through time and space. Some can be as few as a dozen or so individuals, where others contain many thousands (Figure 2, Figure 3). Clusters commonly move from tree to tree within a grove as winter progresses, and in response to shifts in weather (Calvert & Brower, 1986). Clusters also can vary in height. For example, they simultaneously occur between 10ft and 40ft off the ground within the same site in Pismo Beach.

Though monarchs spend a large proportion of the winter clustering together, they are commonly active, particularly in warmer weather. Monarchs can fly in ambient temperatures above 12.7ºC [54.9ºF] (Anderson and Brower, 1996), and may exhibit other behaviors on days that exceed this threshold. Other behaviors include sunning within the grove (Figure 3), flying (Figure 7), nectaring from flowering plants, and drinking from mud puddles, ponds, dew, or streams. Monarchs also may move from one neighboring overwintering grove to another throughout the winter (Griffiths and Villablanca., 2015; James et al., 2021; Sardinas et al., *in prep*). In the spring, copulation attempts are also very common, which result in many monarch pairs on the floor of the grove, leaving them vulnerable to high foot traffic at this time. Breakup of clusters and abandonment of sites generally occurs between late January and March, though the exact time varies between regions and seasons.

Figure 2. Examples of Monarch Clusters of various sizes within an overwintering Site in San Simeon, California 2022. (A.) Depicts a large monarch cluster containing thousands of butterflies. Some individuals pictured are exhibiting sunning behavior, with open wings. (B.) shows a relatively small cluster containing only a couple dozen monarchs. (C.) Is another example of a cluster on a cold morning, when temperatures restrict activity.

Figure 3. Example of an aggregation of monarchs sunning or basking in the sunlight; a common behavior observed warmer winter days within overwintering sites. Morro Bay, California, 2023.

Section 2: Summary of Sensitive Locations in the Project Area

2.1 Map of Sites within the Project Area, and Overwintering Habitat Zones.

Overwintering sites are delineated as containing two sub-areas:

- **Core zone:** the general area within an overwintering site that contains the trees where monarchs cluster.
- **Shelter zone**: area where trees, other vegetation, and topography, including human-made structures, provide wind protection and other microclimate conditions that support monarch clustering and/or aggregation. Shelter zone delineates the outer boundary of an overwintering site and encompasses the core zone.

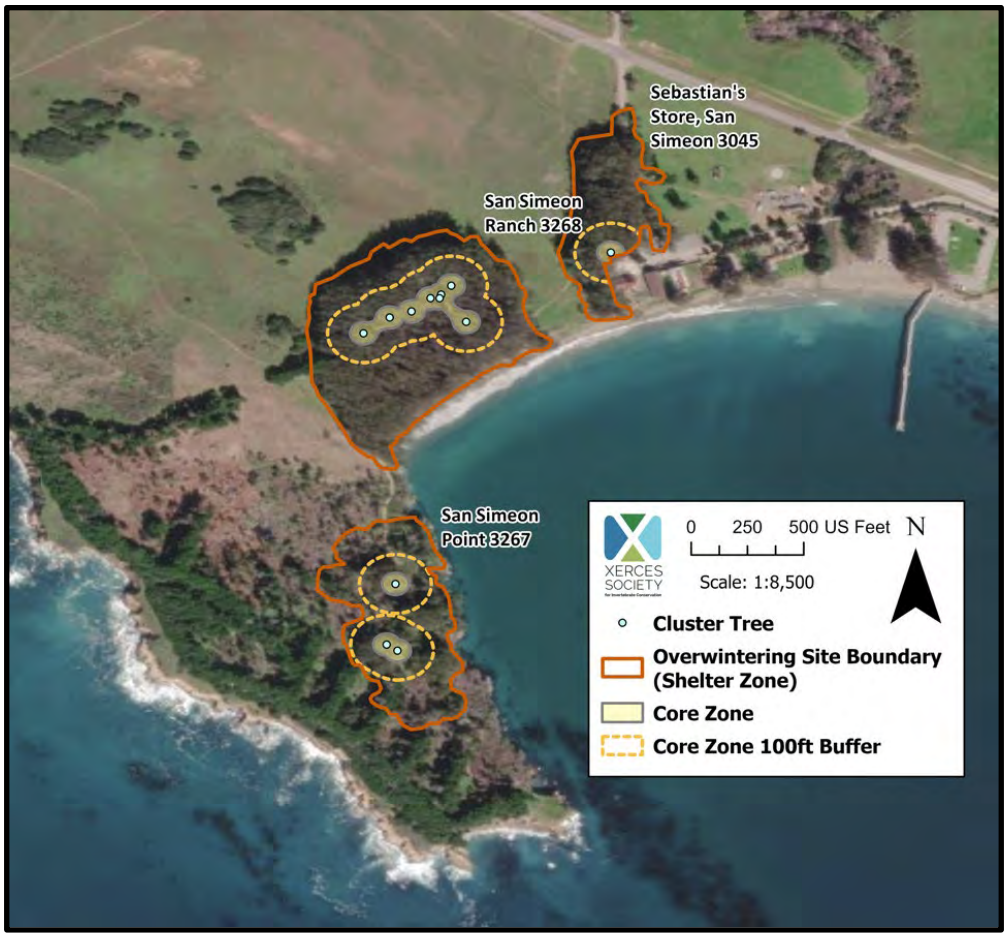


Figure 4. Map of the three Overwintering Sites (orange) and the core zones (yellow) where clusters were observed (blue points). The core zone 100ft Buffer shows the recommended area where heavy machinery such as masticators should not be used during the overwintering season. The core zone is the ~60ft area surrounding known cluster trees. See additional guidelines below, and full-sized map attached.

Location ID	Date Observed	LON	LAT
1	11/16/22	-121.1960347	35.64234508
2	11/16/22	-121.195317	35.64267174
7	11/16/22	-121.1950323	35.64286837
8	11/16/22	-121.1948746	35.64292384
9	11/16/22	-121.1956446	35.64258137
10	11/16/22	-121.1955581	35.63860247
11	11/16/22	-121.1923366	35.64355019
12	11/30/22	-121.1948977	35.64286837
13	11/30/22	-121.1944987	35.64251511
14	11/30/22	-121.1956884	35.63769804
15	11/2/22	-121.1955279	35.63760792
17	1/27/23	-121.1947211	35.6430577

Table 1. List of observed cluster tree locations. This table and accompanying maps may be used to locate and mark these trees to prevent damage or removal.

2.2 Assessment of Overwintering Sites (Pre-Work)

San Sebastian Store Grove status:

The San Sebastian Store site is an oblong grove of mature Blue Gum eucalyptus (*Eucalyptus globulus*) that surrounds SLO San Simeon Rd and Sebastian's General Store. Coordination with the Hearst Ranch is required for full access to the site, which is only partially visible from the road. It is composed of a dense stand of blue gum eucalyptus that is advanced in age, with plenty of recruitment. This site was first described in 1989 by Walter Sakai, and in the past has harbored significant numbers of monarchs, with estimations of 15,000 and 13,000 in 1990 and 1996, respectively. The site is still actively used by monarchs. The most recent significant count has occurred in 2017, when 2,198 were tallied for the western Monarch Thanksgiving Count (WMTC), though in most recent years (2021-22), less than 100 were documented.

San Simeon Ranch Grove Status:

This site is a rectangular grove of mature trees at the base of San Simeon Point (Figure 4). Coordination with the Hearst Ranch is required for full access to the site, which is only partially visible from the walking path open to the public. It is composed of Blue Gum Eucalyptus, with a few Red Gum Eucalyptus (*Eucalyptus camaldulensis*) occurring along the edges. The eastern side is protected from onshore winds by a hill on the edge of the site. Many trees within are healthy, though signs of leaf beetle are present throughout (Figure 6, Figure 7). However, the advanced age of the stand has led to a massive accumulation of dead and downed trees within the grove that has not been cleared away. The site was discovered to host monarchs this season (Winter 2022-2023), with approximately 2,600 counted during the WMTC. This is the highest count among the three sites assessed in this report. Some activity was detected with small aggregations and many fliers still present in late January as well, after major storms. Given count data is limited to one year, it is unclear if monarchs use other parts of the grove for clustering in different years, but based on the site visits majority of this activity appears to occur in the central area of the grove and is therefore the area of highest sensitivity (Figure 4, Figure 7).

San Simeon Point Grove Status:

This oblong grove occupies the east side of San Simeon point and is mostly visible from the walking path open to the public (Figure 5). It's composed of a heterogeneous mix of Blue Gum Eucalyptus, Monterey Cypress, and Monterey Pine that create patchy alcoves throughout, in an otherwise relatively open grove. Blackberries, poison oak, coffeeberry, and other understory vegetation cover the ground in some areas making accessibility in some areas limited but provide nectar resources available in fall and winter from some of these shrubby species. Evidence of pitch canker on pines is present in some areas, and many trees are advanced in age. Dead and downed trees are present as well. The site was officially discovered to host monarchs this season (Winter 2022-2023), with approximately 900 counted during the WMTC. Notably, Regena Orr of California State Parks has reported observing thousands of monarchs out on the point in the late 1990s suggesting this site has been used in prior overwintering seasons (personal comm).

Threats/Disturbances for Each Site:

At the San Sebastian's Store overwintering site, several trees are dead or dying and the stand is dense with eucalyptus of a range of ages. Presence of leaf beetle is evident as well. The presence of diseases and the crowded overstory may result in a grove that does not provide enough natural sunlight for monarchs. The dead and downed trees also increase fire risk. In previous years there were some reports of clusters forming on the branches over the road. These may be cut during fuels reduction to prevent risk of damage to property and personnel.

San Simeon Point faces similar threats and disturbances. Several trees are in poor condition at this site, due to advanced age, pitch canker, and other diseases. There are also large gaps within the grove currently, leaving some areas exposed to onshore and storm winds. Some clearance of dead and downed trees, and removal of advanced understory growth may provide more opportunity for sapling recruitment which could enhance habitat quality.

For San Simeon Ranch, the massive amounts of dead and downed trees put this site at a particularly high risk of a crown fire that could completely destroy the grove. Core cluster zone trees risk damage from nearby dead and leaning trees that are susceptible to falling during storms. Evidence such as leaf beetle is also present at this site (Figure 6).

Vegetation management work is planned for all three sites which should reduce fire risk but could introduce others, such as over clearing, removal of cluster trees, or high levels of disturbance to

the core zone through smoke and human activity during the overwintering season. However, recommendations in this report provide guidance to prevent or minimize these threats while fuel reduction work is being conducted.

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Figure 5. Clusters of Monarchs on a pine at San Simeon Point overwintering site. Observed from the walking path, November 2022.

Figure 6. Small Cluster at San Simeon Ranch Site, November 2022, utilizing a tree heavily affected by leaf beetle, which makes the rips and tears present in the leaves.

Figure 7. Core zone of the San Simeon Ranch Overwintering Site, with many monarchs flying on a warm day, November 2022.

2.3 Recommended Guidelines for Vegetation Management Activities

Within the project area, three overwintering sites were identified, and the core zones were located in each through repeated site visits, and recording clustering locations during the fall and winter of 2022-2023. To create the core zone seen on the map (Figure 4), roughly a 60ft buffer was digitized around the known cluster trees' GPS locations. This is the area of highest conservation priority, and is very sensitive during the overwintering season (~October 1-February 28th). Therefore, recommended guidelines for vegetation management activities is given for the core zone, and separately for the less sensitive shelter zone surrounding it.

Please advise, these recommendations were developed specifically for this project site, and may not be applicable for other locations or projects.

Core Zone Guidance by Management Activity

- All vegetation management work in the core zone should be suspended when monarch clusters are present during the overwintering season (~October 1-February 28th).
- A monarch specialist or qualified biologist should survey the area and confirm monarch cluster absence if work within the core zone is absolutely necessary during the overwintering season (~October 1- February 28th).
- Trees that have been used for clustering should be marked in advance of work with tree tags or flagging to ensure hand crews and personnel do not trim, cut, or damage them. Table 1 provides coordinates of cluster trees.
- Tree thinning and removal of standing trees of any diameter possessing living foliage is not advised within in the core zone unless a tree is identified as an imminent hazard to property or life or is dead or dying and may fall into other cluster trees causing damage. Trees being considered for removal under these guidelines should be evaluated and agreed upon by both a

registered professional forester or certified arborist on the imminent threat and a monarch specialist or qualified biologist for critical habitat protection before project work commences.

- Pile and broadcast burning can be conducted, if necessary, outside of overwintering season (March - September), but should not occur directly under known cluster trees, as monarch clusters break up or drop to the ground when exposed to heavy smoke (Brower and Malcolm, 1991).
- Removal of downed trees, through bucking, lop and scatter, and other mechanical methods to reduce fuel load is encouraged outside of the overwintering season.
- Control and removal of invasive species such as French broom are also encouraged outside of the overwintering season.
- Tree trimming and reduction of ladder fuels such as branches can be conducted within the core zone outside of the overwintering season but retain branches and foliage > ~10ft off the ground. Up to date flagging of important core trees will help to prevent accidental damage.
- Overwintering surveys should be conducted by a monarch specialist or a qualified biologist prior to any year operations are proposed to determine if the location of core zones should change. In addition, surveys should be conducted every fall and/or winter during the project period.
- Core cluster zones can be adjusted as needed under the guidance of a monarch specialist or qualified biologist.

Shelter Zone Guidance by Management Activity

- Control and removal of invasive species such as French broom is encouraged.
- Removal of dead and dying trees, succumbing to pathogens and removal of other ladder fuels using hand crews and mechanical techniques is encouraged. However, see below recommendations on use of heavy machinery and thinning of living trees.
- Select herbicide application to control invasive forbs/shrubs implemented as described in the proposal and following state and federal guidelines should pose a low risk to monarchs outside of the overwintering period (~October 1-February 28th).
- Thinning through the removal of small diameter live trees (up to 8” diameter) and understory vegetation in the shelter zone is acceptable, with the following guidance. A portion of existing small diameter eucalyptus should be retained in order to maintain a diversity of age classes within the grove. This will provide redundancy of wind and other protections in the grove in case other large gaps may form due to age or storm damage in future seasons.
- Use of heavy machinery should be minimized where feasible and not be harmful to the integrity of the overwintering site as a whole. However, its use should be avoided within a 100 ft radius from the core zone when clustering monarchs are present during the overwintering season (October 1- February 28th). This 100ft Buffer zone is shown as a dashed orange line on the provided map (Figure 4).
- Prescribed pile and broadcast burning to further remove additional understory and dead, dying and diseased trees is recommended, as needed. Burning should be avoided if possible in and around the shelter zone during the overwintering season (October 1- February 28th). If burns must be conducted during the overwintering season, they should be completed following a specific smoke mitigation protocol included in the burn plan for this project; see attached for an example from California State Parks San Luis Obispo Coast District.

2.4 Native Nectar Plant Recommendations

Given the scope of the project, there is opportunity to proactively restore some of these sites through strategic planting of nectar resources. During and immediately after this project, nectar

resources may be reduced. Planting or allowing for resprouting of specific native nectar resources could directly enhance the habitat for monarchs and other pollinators. The following plants are recommended for open areas within and around the overwintering sites if time and resources allow it:

- Wax myrtle (*Morella californica*)
- Toyon (*Heteromeles arbutifolia*)
- Coffee Berry (*Frangula californica*)
- Seaside Fleabane (*Erigeron glaucus*)
- Coyote Bush (*Baccharis pilularis*)
- Sage spp. such as Black or Hummingbird sage
- Mule fat (*Baccharis salicifolia*)
- Local Manzanita spp.
- Ericameria spp such as Rabbitbrush, Goldenbush, & Mock Heather

Some of the plants listed above are already present within the project area that can resprout from root crowns, such as Coyote Bush and Coffee Berry. For these plants, we recommend leaving some roots intact by selectively avoiding mechanical techniques that destroy the root crowns in subsections of the project area, if this does not significantly detract from the overall objectives of the project.

2.5 Additional Opportunities

Additional opportunities at these sites include post-restoration habitat and monarch monitoring to study the effects of thinning/fuels management on monarchs' use of the habitat. The winter of 2022-23 represents a pre-restoration baseline; monitoring in the winter of 2023-24 and beyond would provide post-restoration results. For an even greater level of comparison, one could omit a section of each grove from treatment (e.g., leave fuels in place) as an untreated control.

As little work has been done to document the effects of thinning/fuels management work on monarch use, post-restoration monitoring could make these sites a useful case study. The only other site we are aware of that has undertaken thinning to benefit monarch habitat is Andrew Molera State Park (in collaboration with Xerces Society and the consultancy Creekside Science) where thinning of small diameter blue gum eucalyptus trees was conducted in the winter of 2022-23, so post-restoration monitoring has yet to be completed.

For San Sebastian's Store, the creation of a canopy gap could be used to experiment in the success of habitat enhancement. Creating openings in dense eucalyptus stands has previously been studied and anecdotally successful at Monarch Lane in Los Osos, San Luis Obispo County and Point Pinole East Bay Regional Shoreline, Alameda County.

If exploring either/both of these opportunities to monitor monarchs' response to treatments is of interest, we can discuss further to provide more detailed guidance, though we acknowledge funding for these projects may need to be from an entity other than the Fire Safe Council.

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Monarch Butterfly Smoke Mitigation Basic Protocol and Guidelines

Developed by California State Parks, San Luis Obispo Coast District

Fuels reduction and forest management in monarch butterfly overwintering habitats has been identified by land management agencies and involved organizations as a need for preserving overwintering site integrity. Prescribed burning can be used in a range of applications including pile burning and understory/broadcast burning to reduce risk of wildfire, improve and restore ecosystem health, and promote native plant regeneration. Ideally, all prescribed burning activities will be performed outside of the overwintering season (November – January), however, this time frame aligns with the typical prescribed burning season for many areas in California due to favorable burn conditions and availability of fire personnel outside of wildfire season. This introductory document describes recommended guidance for conducting a prescribed burn in the shelter or support zone of an identified overwintering site when monarchs are clustering in the core zone. Prescribed burning in the core zone when monarchs are present is not a recommendation at this time. As short and long-term impacts to monarchs from smoke exposure are not a researched subject at this time, specific measures and actions must be taken before and during a prescribed burn to burn effectively with minimal to zero impacts to overwintering monarchs. Prescribed burning should be performed by trained personnel in conjunction with recommendations identified in a Monarch Overwintering Site Management Plan.

When developing a prescription for an overwintering site the following factors will be considered:

1. Wind Direction
   - Wind direction should be identified as a direction in which smoke will not impact clustering monarchs in the core zone of an overwintering site. **note: wind direction is direction in which wind is coming from. For example, a north wind is coming from the north and blowing south.*
   - Wind direction should be monitored throughout entire burn operation.
   - If change in wind direction begins to cause impacts to monarchs, means of fire suppression must be in place to extinguish fire causing smoke impacts (i.e., hose lay, backpack pump, or other water source)
   - Daily weather forecasts can be received from NOAA that include wind direction and speed.

2. Mixing Height
   - Mixing height refers to the average level of which the smoke will rise and dissipate through the atmosphere, which can have a significant impact on smoke dispersal.
   - Average heights of 1200’ or greater are desired for adequate smoke dispersal.
   - Mixing height does not experience sudden, significant changes during the day, but can be influenced by other atmospheric conditions including incoming pressure systems, inversion layers, and marine layers. These influences should be identified and planned for if expected to occur before, during, or after a prescribed burn.
   - Daily weather forecasts can be received from NOAA that include mixing height.

Figure 1: Example of desired atmospheric conditions producing a defined smoke column lifting and dissipating into the atmosphere well above tree line. Mixing height estimated >1,000 feet.

3. Dynamic Buffer Zones
    - Shelter and support zones may not always have conditions suitable for burning despite long distances, implementing the need for changeable buffer zones.
    - Due to the dynamic nature of fire weather, buffer zones are adjusted frequently and as needed to ensure minimal smoke impacts based on current and expected weather conditions (i.e., wind direction and mixing height).
    - **For example**: an overwintering site experiencing a *south wind* could result in smoke impacts to the core zone within 500 feet, however, a *north wind* in the same region may allow for burning to occur within 100 feet of a core zone with zero smoke impacts to monarchs.
    - Monitoring of current and expected weather and adaptability is essential to ensuring appropriate buffer zones throughout a prescribed burn operation.

ATTACHMENT G: WILDLIFE-FRIENDLY FUELS REDUCTION IN DRY FORESTS OF THE PACIFIC NORTHWEST

Woodland Fish & Wildlife • 2016

Woodland Fish & Wildlife

Wildlife-Friendly Fuels Reduction in Dry Forests of the Pacific Northwest

Nicole Strong, Assistant Professor (Practice), Oregon State University Extension,
Ken Bevis, Stewardship Wildlife Biologist, Washington Department of Natural Resources. Illustrations by **Gretchen Bracher.**

Reducing fuels, improving forest health and enhancing wildlife habitat are common management goals on our private dry forests. These goals don't have to contradict each other, if you follow some simple guidelines. The following publication will give you tips and ideas on how to make sure all of your goals are met.

Introduction

Forests in the Pacific Northwest were historically shaped by fire. Whereas large landscape scale fires impacted west side forests only every few centuries, our dry forest ecosystems experienced fire as frequently as every 5-25 years. These frequent fires occurred at varying intensities, completely torching some areas, lightly burning others, and even skipping some places altogether, creating a complex mosaic across the landscape (Figure 1).

Individual tree vigor was strong because fire reduced competition for water, sunlight, nutrients, and growing space. Historic stands contained large standing dead trees (snags) as well as some very large down logs that would not be consumed by low intensity fires. Regeneration was often patchy, resulting in numerous openings and areas of dense young trees that might flash out in the next fire. Many shrub species would either re-sprout in clumps, or sprout from seed in the soil after a fire, creating a vigorous grass, forb, and shrub understory.

Figures 1 and 2. *The figure on the left shows a historic forest that experienced regular low intensity fire. An individual tree here or there may have torched, but for the most part the fire stayed low. The figure on the right shows the same forest after decades of fire suppression. There is increased competition and reduced tree vigor, as well as increased risk for a high intensity fire. There is also reduced wildlife habitat value for some species in terms of forage and large healthy trees.*

Over the past 100 years we have become quite adept at suppressing wildfires. During this same time period, intensive logging occurred over much of the landscape, which resulted in the removal of large diameter, high value trees. This has created forest conditions of uncharacteristically high fuel loading, increased tree density (number of trees/acre), and increased risk of high intensity wildfire on both private and public forests (Figure 2). We have also, in some cases, seen a transition in our forests from fire and drought tolerant trees (ponderosa pine, Jeffrey pine, western white pine, sugar pine, and western larch) to fire and drought intolerant tree species (Douglas-fir, grand and white fir, subalpine fir).

As a result of this increased risk of high intensity fire or insect and disease outbreaks, many landowners and land managers are conducting fuels reduction treatments across their lands. These projects include thinning (pre-commercial and commercial) trees, mowing or masticating shrubs, pruning trees to remove ladder fuels, removing standing and down dead wood, and sometimes, slash pile burning and prescribed burning.

Unfortunately, some of these fuels reduction practices occur in a uniform and aggressive manner, which can result in wildlife habitat degradation. We can do such a good job "cleaning up" the forest that we inadvertently reduce ecosystem function (Figure 3a and 3b). The good news is that we don't have to choose one or the other. We don't have to sacrifice all wildlife habitat for the sake of fuels reduction, or vice versa.

Figure 3a. *An over-simplified forest.*

Figure 3b. *This forest stand was evenly thinned and heavily mowed. Though it looks very tidy, it is now a very simple forest stand with limited wildlife habitat value.*

The objectives of reducing the risk of stand replacing, or highly destructive fire, while maintaining and enhancing wildlife habitat values are compatible with the implementation of a few simple techniques as a part of Fuels Reduction prescriptions.

The goal of this publication is to give you some ideas so that you may plan your fuels reduction projects in a way that benefits individual tree vigor, forest health, and wildlife habitat.

Maintaining Complexity

Widespread fuels reduction efforts that all do the same thing everywhere can reduce wildlife habitat diversity and complexity. An evenly spaced stand, with much of the understory shrubs and small diameter trees removed, results in reduced cover and available forage. Habitat complexity elements in the mid to understory are critical for many forest wildlife species. For example, small clumps of trees provide a place for deer and elk to hide from predators, and provide shelter from inclement weather. Shrub clumps provide nesting and hiding cover for ground nesting birds and many small

You will see us refer to this mosaic as a "Gappy, Patchy, Clumpy" forest throughout this publication. Gappy, Patchy, Clumpy is often used by forest managers to describe the way trees and shrubs are arranged and distributed across dry forests.

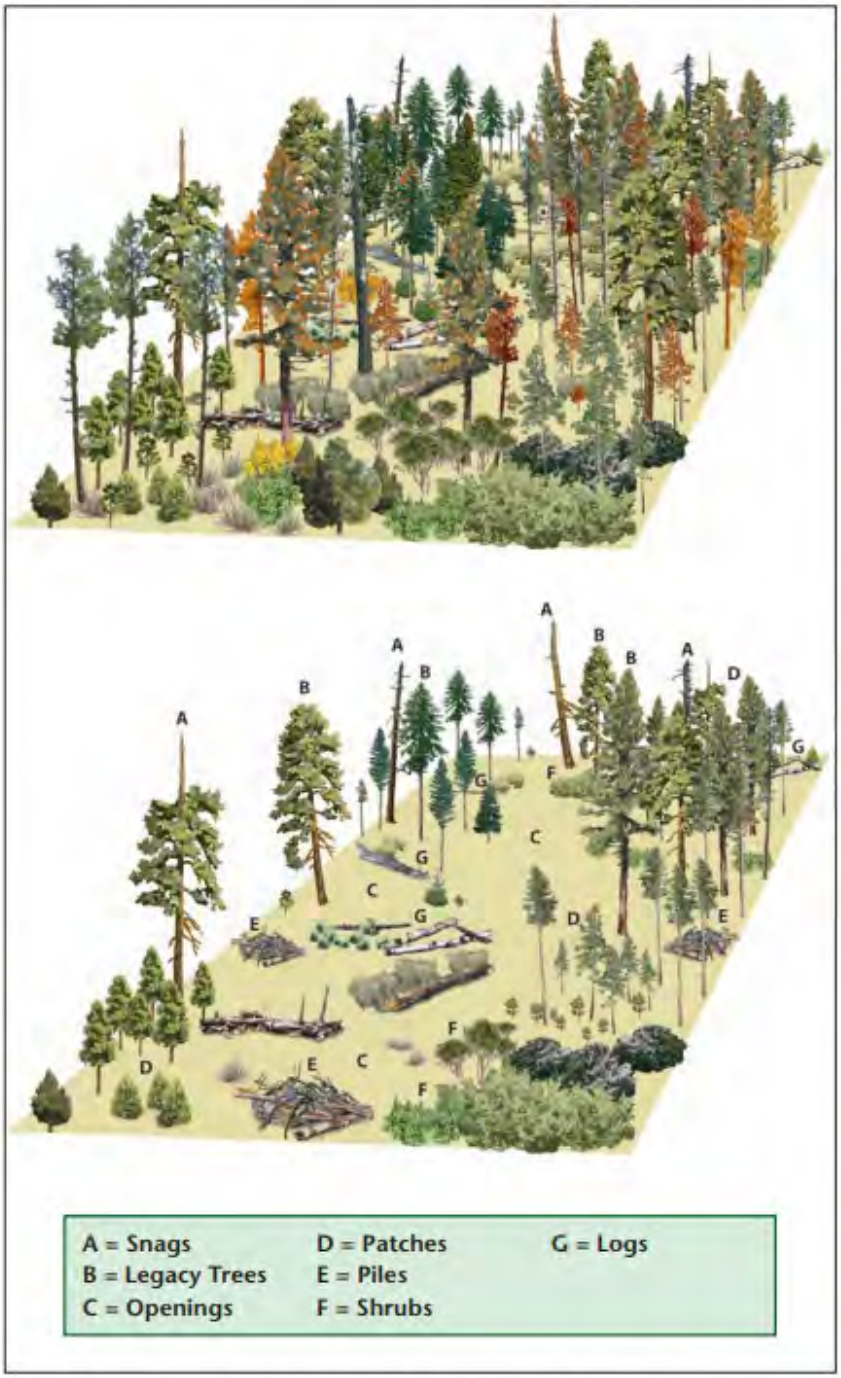

Figure 4 and Figure 5. *Top, a forest from which fire has been removed for many years and is in need of restoration. Bottom, a forest treated to reduce fire risk, be more resilient to insects and disease, and enhance wildlife habitat. Components retained in the treated stand include snags, legacy trees, openings and patches.*

Fuels Reduction Tip: Don't do the same thing everywhere. You want your forest to look different as you walk along your property (horizontal diversity) as well as when you look up and down (vertical diversity). Strive for a "Gappy, Patchy, Clumpy" forest.

mammals that rely on that shrub layer. Deer and elk forage routinely on these same shrubs and hide their fawns in dense shrub thickets.

Remember, you don't need to eradicate all fuels on your property to reduce your risk of high intensity fire; you do need to break up the continuity of fuels to create a suitable fuel break. These fuel breaks will reduce the chance of a fire spreading throughout your property. You can create a diverse landscape that is more resistant to high intensity fire, looks more natural, mimics historic fire patterns, increases individual tree vigor and forest health, and provides high quality wildlife habitat.

Prescription for Habitat Diversity and Fuels Reduction

You are going to manage very differently close to home if you live on your property (1-100 ft) vs further out (100 ft +) in your woodlands. This publication is focused on managing that ground which is further than 100 ft from a building or residence. We recommend visiting the Firewise website http://firewise.org/ for resources on creating defensible space around your home. Some of these habitat recommendations may apply closer to your home, but in fire prone areas be aware of fuel connectivity.

In order to best mimic the natural forest habitats being influenced by our mechanical thinning activities, the following can be applied across fuels reduction stands.

It is important to think about the slope and aspect of your property, as well as prevailing winds. North facing slopes tend to hold snowpack longer and retain more water, so keeping a high density of trees or shrubs on those aspects would probably be OK. The vegetation along creeks and draws holds more moisture and can be a place where you keep a more dense vegetative cover. Your South facing slopes get more sun exposure and tend to dry out more quickly, so careful thinning and fuels reduction will be important here. Think about where a fire is likely to start and where it is likely to go. Heavier fuels reduction in those areas will help keep a fire from traveling across your property. We recommend "A Land Manager's Guide for Creating Fire-Resistant Forests" by Stephen Fitzgerald and Max Bennett for more information on fire behavior and fuels reduction concepts (Full citation in Resources).

Snags

Some of the most important habitat features in any forest are made of dead wood; specifically standing dead trees (snags) and down logs. Live trees with dead portions of their stems and branches can also fill this role. Insects reside in dead and dying wood, often feeding on fungi and wood, resulting in a food source for a variety of bird species such as woodpeckers, nuthatches and chickadees. Cavities created by woodpeckers during regular nesting and courtship behavior can provide homes for secondary cavity species such as bluebirds or flying squirrels. Many of these species are voracious feeders on insects, including some forest pests, and thus can help keep the forest healthy if the habitat is provided and they can occupy territories. If snags do not present a safety hazard over a road, or near a house, we recommend leaving as many foraging snags (10" diameter and smaller) and cavity nesting snags (12" diameter and greater) as possible. Strive for at least 6 foraging snags/acre and 1-2 cavity nesting snags/acre. Remember that bigger snags will persist longer and provide habitat for more species. Many species (owls, pileated woodpeckers) need very large snags.

Tip: Take advantage of harvesting equipment to make some snags. Mechanical harvesters can top trees, leaving 8-20 foot stumps, especially important if you are currently lacking in snags. Climbers can top some trees (creating jagged tops) or girdle 2/3 of the way up to make snags.

Figure 6. *Snag tree.*

Logs

Logs provide ground level habitat complexity and cool, moist hiding cover for small mammals, amphibians and reptiles. They slowly release nutrients and water back into the soil and provide food in the form of insect larvae for woodpeckers and bears. They can also provide an important soil retention function on steep slopes, helping slow water runoff and reduce erosion. Maintain well dispersed down logs on the landscape. Remember, the bigger the snag or downed log, the better!

Legacy Trees

Large diameter trees are the backbone of wildlife habitat in dry forests ecosystems. More trunk surface results in rough bark for foraging by small birds such as nuthatches. More crown surface results in more cone production. These trees are naturally fire-tolerant, but are at increased risk if threatened by understory trees. Tall crowns provide perches for hawks and owls. Sometimes these trees are twisted, broken, gnarly veterans that should be retained in the stand. Consider keeping at least a few mistletoe trees if they are still large and vigorous. Removing all mistletoe trees will be detrimental to species that nest in the brooms (great gray owl, long-eared owl, great horned owl, northern goshawk, and more). Retaining defective trees with broken tops or twisted stems can also provide nesting platforms for raptors. Thinning around these trees (1.5 – 2x past the dripline of the tree) will help them be fire resilient and vigorous.

SLLOPPS: Snags, Logs, Legacy, Openings, Patches, Piles and Shrubs. An acronym that might help you remember these habitat complexity tools!

Openings (Gaps)

Openings can be areas where all, or nearly all, of the overstory trees are taken (or were naturally missing). These openings should be created, maintained or enhanced to allow for the development of shrubs and grasses for wildlife forage. Openings also provide an opportunity for the regeneration of shade intolerant tree species like ponderosa pine. These openings can be imbedded in the stands to allow big game animals, such as deer, elk, and other wildlife associated with edge habitats feeding opportunities in proximity to hiding cover. Openings usually happened in long sinuous (curved or wavy) irregular shapes (no more than 50-110' across) rather than circles, squares or strips.

Patches (Clumps)

Dense pockets of young conifers and shrubs provide quality habitat for many species, such as feeding or nesting habitat for songbirds. They also provide browse and cover for big game species. Patch retention in thinning units can provide this habitat, but requires forethought and follow through. Mark areas to be maintained in a denser state from 30-50 feet across, and at least the same in length, (preferably longer) to provide the "patchy and clumpy" mosaic pattern. These areas should be left un-thinned, (or thinned lightly), to maintain mid-level vegetation (shrubs and young trees) and provide sight distance cover for large mammals such as deer, elk and bear. Patches should be configured across the landscape to break long sight distances. Try to stagger patches at distances of 200-300 feet apart. Try to avoid more than 500' between clumps or patches. Retaining several patches or clumps will help deer and elk tremendously. Visual cover patches along roads and small ridge crests are extremely important.

Figure 7. *Habitat Piles.*

How Much in Openings? How Much in Patches?

If you have less than 10 acres of forest, creating any significant openings might not be practical. In this situation, consider what you see around you on the landscape and think about what you might offer that is different from your neighbors. If you have 10 acres or more of land, the recommendation is to leave approximately 10-20% of your land as clumps or patches, and 5-15% in openings. This might look like one or two openings of 0.2-1 acres in size for every 10 acres. The optimal proportion of clumps or patches to openings is about equal, so considering this guideline would place them across the whole landscape. Ultimately, however, determining fire risk on your property is up to you. If you live on a very steep slope, or are surrounded by dense forests, you might decide to incorporate less of the patch and clump components mentioned above.

Habitat Piles

Piles can be left as distinct habitat elements and act as surrogates for down wood. They provide cover for many species of wildlife, including squirrels, small mammals, lizards, snakes, rabbits, and numerous small birds such as juncos. California Valley Quail will use habitat piles for nesting and for night roosts, especially if piles are placed along edges between open areas and closed cover. Piles providing the most suitable wildlife habitat are constructed to retain interior open spaces via the use of larger pieces of wood. Landowners can place at least 3-5 layers of larger logs crisscrossed, or longwise in triangular 3s, to provide a core habitat with nesting and denning spaces. These piles are then covered with a few layers (about 2-3 feet deep) of fine branches. Habitat piles provide tremendous value, and can be used as a slash treatment option. If they did catch fire, they will burn hot only in that spot. Piles should be established well outside the dripline of overhanging trees and patches so they will not act as ladder fuel. Habitat piles should be provided at a rate of 1-3 per acre, preferably in clusters away from roads. In order to benefit wildlife, these piles should not be used as sources of firewood and should be marked for retention after the work is done and before the other "brush" or "slash" piles are burned. Usually there is plenty of fuel around to dispose of, and creating these piles should not cause a significant increase in fire risk if strategically placed across the

Bitterbrush is a very important understory plant in many of our dry forests, as are our native bunch grasses. Almost anything with "berry" in the name is a good choice for keeping or encouraging!

landscape. Note: Green ponderosa pine slash should only be used for piling between September and December to avoid creating a concentration of food that may attract Ips bark beetles.

Shrubs

Many native shrub species provide excellent fruit, insects and forage for wildlife. Clumps of shrubs also provide nesting and hiding cover for birds and small mammals such as vireos and chipmunks. The shrub species you have will vary greatly with your locale. We recommend checking with your watershed council, Soil and Water Conservation District, Cooperative Extension office, or other local technical service provider for advice on which native shrub species you should encourage on your property. These agencies can also suggest sources for native shrub species for planting if these species are lacking on your property. It is also important to remember that heavy mastication can result in removal of high value shrubs, or an undesired transition of understory species.

Timing

If you have the flexibility to do all of your operations in the fall or winter, you will reduce the chance of disturbing or destroying bird nests or small mammal dens. In ponderosa pine stands, thinning in the spring or summer that creates green slash can result in an Ips beetle outbreak that can result in inadvertent damage to desired residual trees.

Pruning

Pruning some trees helps reduce the ability of a fire to climb up from the ground to the canopy of your trees. Pruning in situations with dead in the lower portion of the tree can significantly reduce ladder fuels. You do not have to prune every tree to achieve this goal. In some situations, if you have a very old tree with large branches, your strategy might be to remove all the vegetation around that tree, or make a small "clump". Many species of birds and small mammals use those branches to move up and down the trees. Consider leaving 5-10% of the trees un-pruned or lightly pruned to provide some low branch habitat. When you do prune, remove lower branches up to eight feet off the ground, making sure 1/3rd or more of a tree's total branches are retained. This will ensure your tree's vigor.

Burning

Most burning done on small-scale fuels reduction projects will be pile burning in the fall or winter. Make sure you only burn piles determined to be excess fuels and not those constructed as habitat piles. Broadcast prescribed burning can be a very effective fuels reduction tool, but is often cost and logistically prohibitive. If you want to burn, be sure to check with your local fire districts and state forestry organizations for burn permits, timing restrictions, and requirements. You should also consider reducing some of your surface fuels mechanically before burning to prevent the fire from getting too hot and killing more trees than you desire. If you choose to use prescribed fire, carefully plan the timing to avoid a burn that is too hot that can reduce the vigor of shrubs or grasses you care about.

Seeding

Using a seed mix dominated by native plants, with an element of legumes such as clovers, will occupy disturbed

This soft snag provides great habitat for small cavity nesting birds. Note the shrub patch in the back. Photo by Ken Bevis

soils and help keep weeds at bay. The legumes will provide good forage for wildlife such as deer and quail. Seed mix recommendations are available from local farm supply stores, or your local technical service provider (NRCS or Extension Service). Be sure your seed mix is certified weed free.

Conclusion

Ultimately, you need to evaluate your personal risk, evaluate the trade-offs of different practices, and create a management plan for your property that meets your goals, your resources, and the scale of your property. We feel confident that the recommendations given in this publication can help anyone plan a fuels reduction project on their property that also provides improved forest health, aesthetics, and wildlife habitat.

Small clumps left in this stand do not pose a hazard to remaining trees and provide important hiding cover. Photo by Ken Bevis

Summary of Recommendations:

Snags and Logs: Strive for 6 foraging snags/acre and 1 - 2 cavity nesting snags/acre. Strive for snags and logs greater than 15 ft. long/tall and greater than 12″ in diameter.

Legacy: Keep any old growth trees, including defective trees. Strive for 2 - 3 per acre.

Openings: Openings can vary from 1/10 to 5 acres in size. They can comprise 5 - 15% of the landscape and aim for irregular shapes.

Patches: Patches can be 30 - 50 ft. across and preferably 100 - 300 ft. in length. Aim for 10 - 20% of the landscape.

Piles: Build habitat piles of 5 layers with larger material on bottom. Piles should be 20 ft. in diameter, 6 ft. high and 1 - 3 per acre.

Shrubs: Maintain the best species on the site, keep them in clumps, and beyond any adjacent tree's overhanging limbs (dripline).

Timing: Fall is best time for work to avoid wildlife nesting and denning, and insect outbreaks.

Pruning: Leave 5-10% of your trees un-pruned. When pruning, retain 1/3 of tree's total live branches for tree vigor. Only prune when trees are dormant (October-March) to avoid insect infestation.

Seeding: On disturbed soils or areas of burned soil, use native and certified weed free seed mixes.

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Making sure you properly dispose of slash from fuels reduction treatments is critical to reduce the chance of a beetle outbreak. Photo by Ken Bevis

A publication by the Woodland Fish and Wildlife Group, 2016. Publications by the Woodland Fish and Wildlife Group are intended for use by small woodland owners across the Pacific Northwest. Some resources here are state specific, but should be generally useful to landowners throughout the Pacific Northwest.

About the Woodland Fish and Wildlife Group

The Woodland Fish and Wildlife Group is a consortium of public agencies, universities, and private organizations which collaborates to produce educational publications about fish and wildlife species, and habitat management, for use by small woodland owners in the Pacific Northwest.

Currently available publications can be viewed and downloaded, free of charge, at the organization's website:

www.woodlandfishandwildlife.com

Comments or other communications may be directed to:

Woodland Fish and Wildlife Group
c/o Executive Director
Western Forestry and Conservation Association
4033 SW Canyon Road
Portland, OR 97221
(503) 226- 4562
richard@westernforestry.org

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Project Partners

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