PROJECT-SPECIFIC ANALYSIS AND ADDENDUM
TO THE CalVTP PROGRAM EIR

Tomales Bay State Park Forest Health and Wildfire Resilience Project

Prepared for:

California State Parks
Bay Area District
845 Casa Grande Road
Petaluma, CA 94954

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LIST OF ABBREVIATIONS

Addendum	Addendum to the Program EIR
BAAQMD	Bay Area Air Quality Management District
BAARI	Bay Area Aquatic Resource Inventory
Board	California Board of Forestry and Fire Protection
CAAQS	California ambient air quality standard
CalVTP	California Vegetation Treatment Program
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Coastal VTS	Coastal Vegetation Treatment Standards
CRHR	California Register of Historical Resources
CSP	California State Parks
DBH	diameter at breast height
DPS	distinct population segment
ESA	Endangered Species Act
ESHA	Environmentally Sensitive Habitat Areas
ESU	evolutionary significant unit
F	Fahrenheit
FIGR	Federated Indians of Graton Rancheria
GHG	greenhouse gas
HCP	habitat conservation plans
IAP	Incident Action Plan
LCP	Local Coastal Program
LRA	Local Responsibility Area
MCFD	Marin County Fire Department
MCV	Manual of California Vegetation
MMRP	mitigation monitoring and reporting program
NAAQS	national ambient air quality standard
NAHC	Native American Heritage Commission
NCCP	natural community conservation plans
NO_X	nitrous oxide

NVC	National Vegetation Classification
PM	particulate matter
Program EIR	Program Environmental Impact Report
PSA	Project-Specific Analysis
PWP	Public Works Plan
ROG	reactive organic gas
RPF	Registered Professional Forester
SAFZ	San Andreas Fault Zone
SP	State Park
SPR	standard project requirement
SR	State Route
SRA	State Responsibility Area
TAC	toxic air contaminant
TCR	tribal cultural resource
TK	Traditional Knowledge
TPA	trees per acre
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
VMT	vehicle miles traveled
VTS	Vegetation Treatment Standards
WLPZ	Watercourse and Lake Protection Zone
WUI	wildland-urban interface

1 INTRODUCTION

1.1 PROJECT OVERVIEW AND DOCUMENT PURPOSE

The California Board of Forestry and Fire Protection (Board) certified the Program Environmental Impact Report (Program EIR) for the California Vegetation Treatment Program (CalVTP) in December 2019. The Program EIR evaluates the potential environmental effects of implementing vegetation treatments throughout areas of the State Responsibility Area (SRA) and Local Responsibility Area (LRA) in California. This document is a Project-Specific Analysis (PSA) and Addendum to the Program EIR (PSA/Addendum). The PSA/Addendum process was designed during Program EIR preparation for use by many state, special district, and local agencies to help increase the pace and scale of vegetation treatment by employing California Environmental Quality Act (CEQA) efficiency tools, i.e., a within-the-scope finding based on the PSA. An Addendum to the Program EIR is another CEQA tool designed to address project components that are not within the scope of the Program EIR, but result in only minor technical changes or additions, in accordance with CEQA Guidelines Section 15164. This PSA/Addendum comprises the joint implementation of these methodical and efficient CEQA tools in a single document. The PSA/Addendum demonstrates that the proposed project activities are consistent with the treatment activities evaluated in the CalVTP, and that the standard project requirements (SPRs), tribal cultural resources SPRs developed in consultation with the Federated Indians of Graton Rancheria (FIGR or Tribe), and mitigation measures from the CalVTP will be integrated into the treatment activities to avoid and minimize impacts.

California State Parks (CSP) prepared the *Tomales Bay State Park Forest Health and Wildfire Resilience Public Works Plan* as a companion to the CalVTP. This Public Works Plan (PWP) provides an efficient mechanism for Coastal Act compliance within the Coastal Zone of Tomales Bay State Park (SP) in Marin County. The PSA/Addendum addresses the components of the CalVTP as required pursuant to CEQA and includes information required pursuant to the Coastal Act and PWP (refer to Section 1.1.4, "Public Works Plan"). Both the PWP and this PSA/Addendum have been prepared in collaboration with staff members of the California Coastal Commission (Coastal Commission or Commission) and the Board. CSP has consulted and collaborated government-to-government with FIGR on the development and planning of the project to ensure the project aligns with tribal priorities and needs. FIGR is a sovereign nation and a federally recognized Indian Tribe. FIGR is the only federally recognized Indian Tribe with ancestral territory throughout Marin County. The Tribe is comprised of Coast Miwok and Southern Pomo peoples whose cultural and ancestral lands encompass what are now Marin and Sonoma Counties. Tomales Bay SP is part of a larger sacred landscape that holds cultural and religious significance to FIGR. The Tribe retains Traditional Knowledge (TK) about the lands, waters, environments, beings, and relationships that are essential to land stewardship and cultural and natural resource management in Tomales Bay SP (GGPNC 2023).

To assist with increasing the pace and scale of vegetation treatment through efficient CEQA review, the Board is supporting the preparation of PSA documents to create a library of example projects that help guide state and local agencies in preparing their own PSAs under the CalVTP Program EIR, as well as to achieve CEQA compliance for the proposed project. The Board selected the proposal from CSP for a proposed ecological restoration treatment project to be one of the PSAs that provides CEQA compliance for project approval and implementation and serves as an example of a PSA/Addendum for other agencies seeking to use the CalVTP Program EIR, with a PWP for Coastal Act compliance, to accelerate approval of their own vegetation treatment projects.

1.1.1 Proposed Project

CSP proposes to implement the Tomales Bay SP Forest Health and Wildfire Resilience Project (Project) involving ecological restoration treatments on up to 1,590 acres within the 2,433-acre Project area. Treatments would all occur within Tomales Bay SP in Marin County (refer to Section 2.4, "Proposed Initial Treatments"). The proposed ecological restoration treatment type and the treatment activities, manual treatments, mechanical treatments, prescribed burning (comprising broadcast or cultural burning, pile burning, and/or air curtain burning), and herbicide

application, are consistent with those evaluated in the CalVTP Program EIR. Future maintenance treatments are included this PSA/Addendum and would involve the same ecological restoration vegetation treatment type and activities used in the initial treatment project with the addition of prescribed herbivory in limited locations within shrubland and grassland habitat.

1.1.2 Agency Roles

For the purposes of the CalVTP Program EIR and this PSA/Addendum, a project proponent is a public agency that provides funding for vegetation treatment or has land ownership, land management, or other regulatory responsibility in the treatable landscape and is seeking to fund, authorize, and/or implement vegetation treatments consistent with the CalVTP. This document is being prepared for CSP to comply with CEQA for its approval and implementation of vegetation treatments that require a discretionary action by a state or local agency. CSP is the project proponent and the CEQA lead agency. In addition, the California Coastal Commission (Coastal Commission or Commission) is a responsible agency under CEQA (refer to Section 1.1.4, "Public Works Plan").

1.1.3 Purpose of This PSA/Addendum

This document evaluates whether the proposed treatments would be within the scope of the CalVTP Program EIR. The CalVTP Program EIR includes wildland-urban interface (WUI) fuel reduction, fuel breaks, and ecological restoration treatment types and mechanical, manual, prescribed burning, herbicide, and prescribed herbivory treatment types. As stated above, the treatment type (ecological restoration) and treatment activities (mechanical, manual, prescribed burning, herbicide, and prescribed herbivory) proposed to implement the Project are consistent with the CalVTP. Prescribed herbivory is proposed only as a maintenance treatment. If a proposed vegetation treatment project is covered by the evaluation of environmental effects in the Program EIR, it may be approved using a finding that the project is within the scope of the Program EIR for its CEQA compliance, consistent with CEQA Guidelines Section 15168(c)(2).

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

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

This document serves as both a PSA and an Addendum to the CalVTP Program EIR. CSP is responsible for review and analysis of the PSA/Addendum under CEQA regarding the Project within and outside the treatable landscape, including the proposed SPR revisions. The PSA/Addendum will provide environmental information to CSP in its consideration of implementation of the work by CSP, its partners, its contractor(s), and FIGR. The project-specific mitigation monitoring and reporting program (MMRP), which identifies the CalVTP SPRs and mitigation measures applicable to the proposed Project, is presented in the MMRP for the Tomales Bay SP Forest Health and Wildfire Resilience Project, attached as Attachment A. The SPRs identified in the MMRP have been incorporated into the proposed ecological restoration treatments as a standard part of treatment design and implementation.

PROPOSED PROJECT REVISIONS

Project Area Outside the CalVTP Treatable Landscape

Among the criteria for determining whether a treatment project is within the scope of the CalVTP Program EIR is whether it is within the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the Program EIR). While most of the Project area would be inside the treatable landscape, portions of it extend outside of the treatable landscape described in the CalVTP Program EIR. In total, the areas outside the treatable landscape encompass approximately 838 acres of the 2,433-acre Project area. These are small and dispersed throughout the Project area in discontinuous patches (refer to Section 2.4, "Proposed Initial Treatments").

The scattered array of acres outside of the CalVTP treatable landscape is due to the method by which the CalVTP treatable landscape was digitally developed and the resultant degree of mapping resolution. Using desktop applications to apply buffers around geographic and topographic features and demarcate jurisdictional boundaries (i.e., SRA and LRA), the method resulted in some treatable landscape areas that are shown on maps to be disjointed and scattered and some that are inheld areas surrounded by the mapped treatable landscape. If the areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or at least substantially similar, landscape conditions as the adjacent areas within the treatable landscape, the environmental analysis in the Program EIR would be applicable to these adjacent areas.

Proposed Revisions to CalVTP SPRs

CSP has proposed revisions to SPRs as described below to meet vegetation treatment objectives. These proposed revisions would not result in any new or substantially more severe significant impacts on any of the resources evaluated in the Program EIR and described in this PSA/Addendum. Evidence to explain this conclusion is presented under each applicable resource, as described below.

CSP has identified CalVTP SPRs that are not warranted to maintain the impact significance conclusions in the Program EIR, are infeasible, and, if implemented as presented in the Program EIR, would prevent CSP from meeting ecological restoration treatment objectives. Because SPRs are part of the CalVTP and are incorporated into the proposed ecological restoration treatments as a standard part of treatment design and implementation, revisions (beyond clarifying edits) would constitute a change to the CalVTP Program EIR's description of later project activities.

SPR AQ-3 Create Burn Plan

SPR AQ-3, as presented in the Program EIR, requires preparation of a burn plan using the CAL FIRE burn plan template prior to broadcast burning treatment activities. Pursuant to SPR AQ-3, the burn plan will include a fire behavior model performed by a qualified fire behavior technical specialist, will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion, and will be created with input from a qualified technician or certified CSP, State (CARX/CAL FIRE Rx Fire IC), or National Wildfire Coordinating Group burn boss.

The CAL FIRE Prescribed Fire Guidebook provides the template and required elements of CAL FIRE burn plans: a description of the burn area; target weather conditions; hazards that may be encountered; personnel needs, safety, and contacts to make prior to burning; and short and long-term management goals (CAL FIRE 2019). The burn plan templates proposed to be used by CSP contain all of these elements. CSP proposes to prepare burn plans prior to prescribed broadcast burning activities using approved CSP burn plan templates, which include additional elements. CSP proposes to include elements in the burn plan that are required to comply with CSP policies, obtain burn permits, and any additional elements that are needed to design a burn that will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. This may, but is not required to, include outputs from fire behavior modeling programs. The burn plan will incorporate tribal cultural resource goals and protection measures developed in consultation with FIGR.

All potential impacts resulting from revisions to SPR AQ-3 are discussed below under Section 4.1, "Aesthetics and Visual Resources," Section 4.3, "Air Quality," Section 4.5, "Biological Resources," Section 4.6, "Geology, Soils, Paleontology, and Mineral Resources," Section 4.7, "Greenhouse Gas Emissions," and Section 4.16, "Wildfire." As explained in these sections, the proposed revisions to SPR AQ-3 would not result in any new or substantially more severe significant impacts than were analyzed in the Program EIR. No other sections would require changes as a result of revisions to SPR AQ-3. The proposed revisions to SPR AQ-3 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR AQ-6 Prescribed Burn Safety Procedures

SPR AQ-6, as presented in the Program EIR, requires non-CAL FIRE crews to implement all safety procedures required of CAL FIRE crews. This includes implementation of an approved Incident Action Plan (IAP), and outlines the elements required in the IAP. To maintain public safety, CSP proposes to prepare IAPs and/or prescribed burn plans for all prescribed burning conducted by non-CAL FIRE or Marin County Fire Department (MCFD) crews. IAP/burn plan elements may include 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. All assigned personnel for a prescribed burn will be briefed to ensure personnel safety and convey prescribed fire objectives.

All potential impacts resulting from revisions to SPR AQ-6 are discussed below under Section 4.3, "Air Quality." As explained in this section, the proposed revisions to SPR AQ-6 would not result in any new or substantially more severe significant impacts than were analyzed in the Program EIR. No other sections would require changes as a result of revisions to SPR AQ-6. The proposed revisions to SPR AQ-6 are shown in underline and strikethrough in the MMRP (Attachment A).

1.1.4 Public Works Plan

The PWP requires that projects adhere to the Coastal Vegetation Treatment Standards (Coastal VTS) and all other Project Standards approved as part of the PWP and includes additional information about project design within the Coastal Zone. This PSA/Addendum includes information that demonstrates consistency with the Coastal VTS as required pursuant to the Coastal Act and PWP (Attachment B). In addition, Tribal Cultural Resource SPRs were developed in consultation with FIGR and consistency with those measures is discussed in Section 4.4 and the full measures are provided in Attachment A of this PSA/Addendum. The PWP provides the Coastal VTS, Tribal Cultural Resource Standards, Project Standards, and a summary of the CalVTP SPRs and mitigation measures; the state and local planning context; and a discussion of the administration, approval process, and project review.

In determining whether the proposed project is consistent with the PWP, the Coastal Commission will review the PSA/Addendum and response to the Coastal VTS (Attachment B). Coastal Commission review of a proposed project is deemed complete on the date of a Commission determination that the project is consistent with the PWP, though the Commission retains enforcement authority through its review of monitoring reports.

2 PROJECT DESCRIPTION

2.1 SETTING

Located in Marin County within the ancestral lands of the Federated Indians of Graton Rancheria (FIGR), Tomales Bay SP is a 2,433-acre park with an elevational range of sea level to 1,240 feet. The Project area encompasses all of Tomales Bay SP, and ecological restoration treatments conducted to implement the Project would prioritize treatments on approximately 1,590 acres of the Project area. The remaining 843 acres are difficult to access for treatments based on the steepness of the slope, distance from access points, or are within habitat that is not identified for treatment. This PSA/Addendum evaluates proposed treatments in the entire 2,433-acre Project area.

The park is situated along the west and east sides of Tomales Bay. Point Reyes National Seashore is located to the west; the communities of Marshall and Marconi are located to the northeast; Point Reyes Station is located to the southeast; and Inverness is located south and east. Primary access is from State Route (SR) 1 and Sir Francis Drake Boulevard/Pierce Point Road. To address degraded ecosystems and hazardous fuel conditions resulting from drought, pathogens, invasive species, and decades of fire suppression, CSP proposes to design, permit, and implement critical, high-priority ecological restoration treatment activities that would restore natural ecological conditions and reduce future risk of catastrophic wildfire, while integrating FIGR Traditional Knowledge (TK) and perspectives into vegetation management in the park. In addition to their direct human and ecological toll, catastrophic wildfires exact a global climate toll from their greenhouse gas emissions (Peeler et al. 2023). Treatments are proposed to promote forest health and habitat resiliency in areas affected by the exclusion of fire, infestation of pests, and/or presence of pathogens.

2.2 PROBLEM STATEMENT

The effects of fire suppression and climate change have altered and continue to impact the landscape of California. This combination of stressors has resulted in sensitive habitats that have both declined substantially in habitat quality and increased substantially in their vulnerability to severe wildfire (Ayars et al. 2023; Stephens et al. 2022). The native habitats of Tomales Bay SP are adapted to fire and "the combination of colonization, settlement, urbanization, fire suppression, past and present land use, and policies that prevent or avoid forest management have disrupted Coast Miwok relationships with some areas in the county and created a departure from healthy conditions in many of Marin's forests" (GGNPC 2023). The effects of fire suppression can be seen in the changes in vegetation density and fuel loading in the Hearts Desire Area of Tomales Bay SP since the last recorded fire, which occurred sometime between 1917 and 1934 (Figure 2-1). Vegetation communities in Tomales Bay SP, including Bishop pine forest, hardwood forest, and grasslands, face significant ecological stressors including potential high severity wildfires, droughts, invasive species, and pathogens, all of which are amplified by the increasing impacts of climate change. The impacts from these stressors have caused changes in vegetation composition, structure, and density resulting in increased fuel loads, which reduce the health and resilience of these habitats and increase the potential risk of impacts from catastrophic wildfires.

The Marin Fine Scale Vegetation Map (GGNPC et al. 2021) and Marin Regional Forest Health Strategy (GGNPC 2023) comprehensive mapping and data analysis document the departure from healthy conditions in vegetation communities in Tomales Bay SP. Those unhealthy conditions include forested areas where greater than 15 percent of the tree canopy are standing dead trees, where a significant proportion of the forest canopy density has been lost between 2010 and 2019, and where there is a very high concentration of ladder fuels.

To gain further understanding of the site-specific forest conditions, CSP funded a forest inventory and assessment in 2019. The inventory, data analysis, and report were completed by Avocet Research Associates and Registered Professional Forester Tom Gaman (Avocet Research Associates and Gaman 2019).

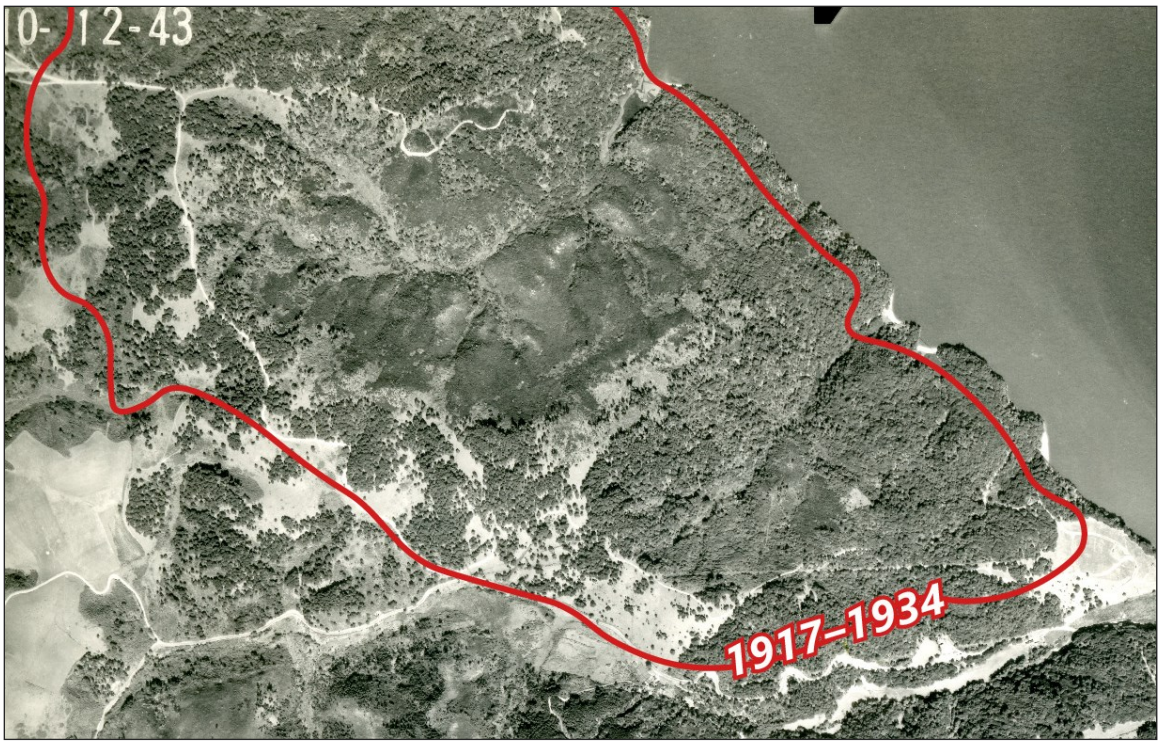

Photo taken in 1942. Exact date of fire undocumented; however, fire occurred between 1917 and 1934.
Source: County of Marin 2024; CAL FIRE 2024.

Image from 2024. Exact date of fire undocumented; however, fire occurred between 1917 and 1934.
Source: Google Earth 2024; CAL FIRE 2024.

Note: Images show the perimeter of a historic fire that burned within the Hearts Desire Area sometime between 1917 and 1934, and the effects of fire suppression leading to increased vegetation densities and fuel loads between 1942 and 2024.

Figure 2-1 Aerial Photos of Tomales Bay State Park from 1942 and 2024

That inventory included 50 sample plots within Tomales Bay SP and the data analysis demonstrated that there are high levels of tree disease and mortality in declining Bishop pine (*Pinus muricata*) and hardwood forests and insufficient natural regeneration to sustain both Bishop pine and hardwood forest without management. It also confirmed that much of the park is covered with standing dead and fallen trees, a dense and often impenetrable understory of native shrubs, and deep layers of litter and duff, all of which inhibit forest regeneration and contribute to heavy surface and ladder fuel loads.

Coastal California grasslands have high species diversity (Stromberg et al. 2001) and grasslands where native perennial species were dominant now cover a dwindling proportion of the landscape (Russell and McBride 2003). In the absence of natural fire and Coast Miwok cultural burning, grasslands in the park are being increasingly converted to shrublands, have developed dense thatch layers inhibiting forb regeneration, and are impacted by invasive species. A 2009 study at Mount Tamalpais State Park in Marin County (Laćan et al 2009) documented the loss of grasslands to succession, through the analysis of aerial imagery. CSP staff have observed increasing cover of coyote brush in the grasslands within Tomales Bay State Park and coyote brush encroachment is visible in aerial imagery from 1952 when compared with imagery from 2024 (Figure 2-2a, Figure 2-2b), which is consistent with the encroachment process documented within Mount Tamalpais State Park.

The cumulative and ongoing deterioration of the SP's vegetation from ecological stressors requires active stewardship and management. In the absence of ecological restoration, these habitats would continue to decline resulting in the potential deterioration or loss of native habitats including Bishop pine forest, hardwood forest, and grasslands, and increasing risk of impacts from catastrophic wildfire.

However, re-establishment of natural and cultural fire regimes that existed during the evolutionary history of the plants and animals found within Tomales Bay SP cannot be replicated under current conditions. It is also accepted that even if historic fire regimes were re-established, these natural communities have been so altered that the effects of these regimes would not restore most of these communities to a pre-European contact state.

Given these constraints, where possible, evolutionarily appropriate fire regimes or surrogates (e.g., mechanical and manual treatment) for those regimes should be enacted or maintained. Literature provides peer-reviewed support for the treatment activities proposed (Hessburg et al. 2016; Jones et al. 2022; Keeley 2002; Stephens et al. 2012; Stephens et al. 2020; Stephens et al. 2023; Vaillant et al. 2009; Wu et al. 2023).

2.3 GOAL STATEMENT

It is the mission of CSP "[T]o provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation." The proposed Project is focused on protecting natural resources and preserving biological diversity. The Tomales Bay SP General Plan (CSP 2004b) provides more detailed and specific parameters for the long-term management of the park. It outlines clear directives for natural resource management and is a key driver of the Project goals. The General Plan directs CSP to manage for the integrity of native plant communities, restore the role of fire in the natural ecological processes of the park, and reduce the risk of high severity wildfire. It also provides specific guidance for Bishop pine management with direction to reestablish and maintain forest structure and improve regeneration of Bishop pines.

The primary goals of the Project were developed based on and consistent with the CSP mission and General Plan. The goals are to improve resilience of the vegetation in the park for ecological benefit and to reduce wildfire risk, preserve and steward the park's Bishop pine forests, mixed hardwood forests, and grasslands and consult with and integrate FIGR TK and FIGR perspectives into vegetation management in the park. To accomplish those goals, CSP, in consultation with FIGR, would implement ecologically driven management to restore native habitat composition, structure, and density; create a dynamic mosaic of vegetation types and age classes in the park; and renew the beneficial role of fire through prescribed and cultural burning.

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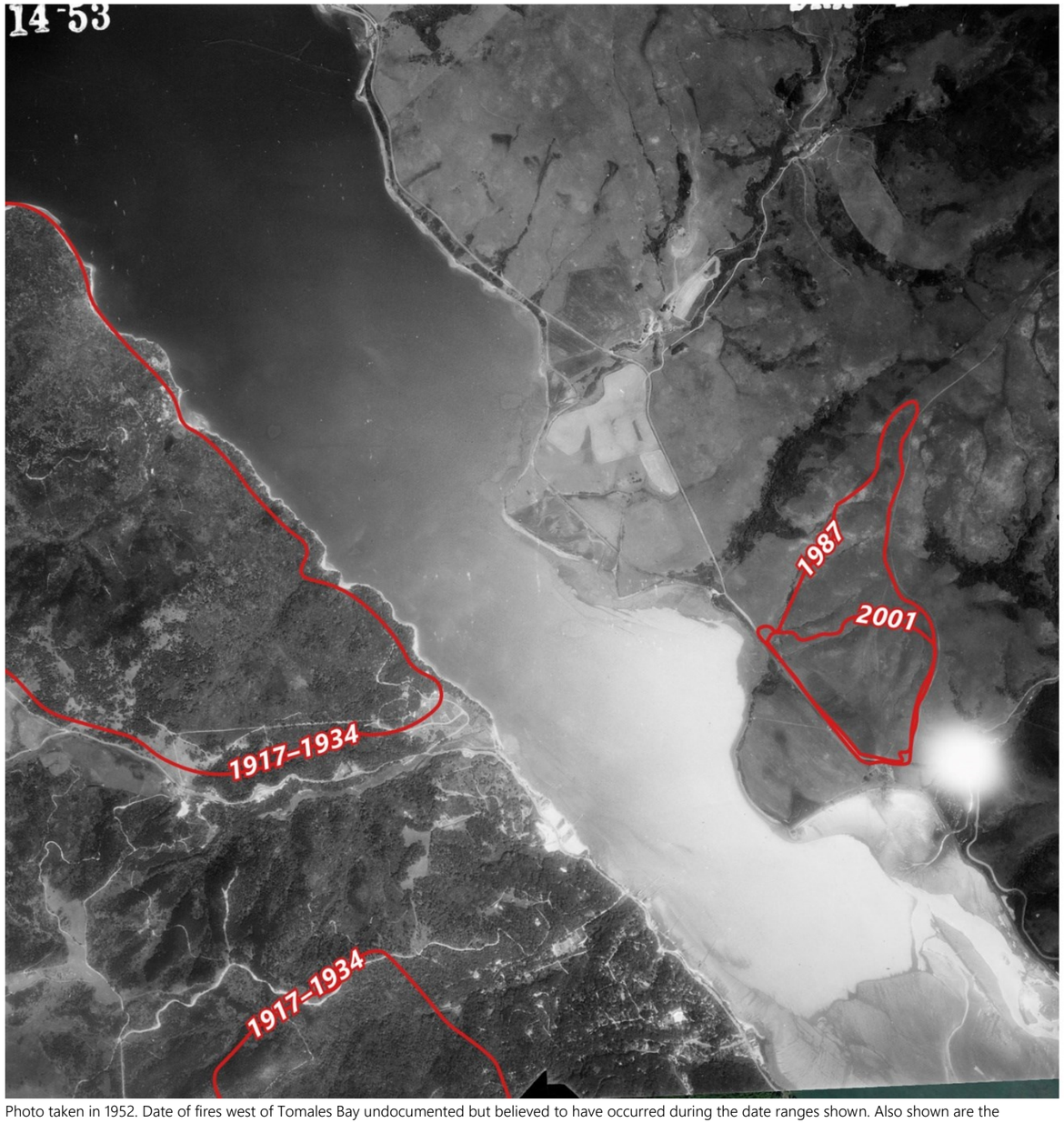


Photo taken in 1952. Date of fires west of Tomales Bay undocumented but believed to have occurred during the date ranges shown. Also shown are the Millerton Fire (1987), and Shoreline Fire (2001).
Source: County of Marin 2024; CAL FIRE 2024.

Image from 2024. Date of fires west of Tomales Bay undocumented but believed to have occurred during the date ranges shown. Also shown are the Millerton Fire (1987), and Shoreline Fire (2001).
Source: Google Earth 2024; CAL FIRE 2024.

Note: Images show the perimeters of historic fires that burned within the Hearts Desire Area, Millerton Area, and surrounding areas. Also shown is the increased vegetation densities and expansion of coyote brush into grasslands between 1952 and 2024.

Figure 2-2a Aerial Photos of Tomales Bay State Park from 1952 and 2024

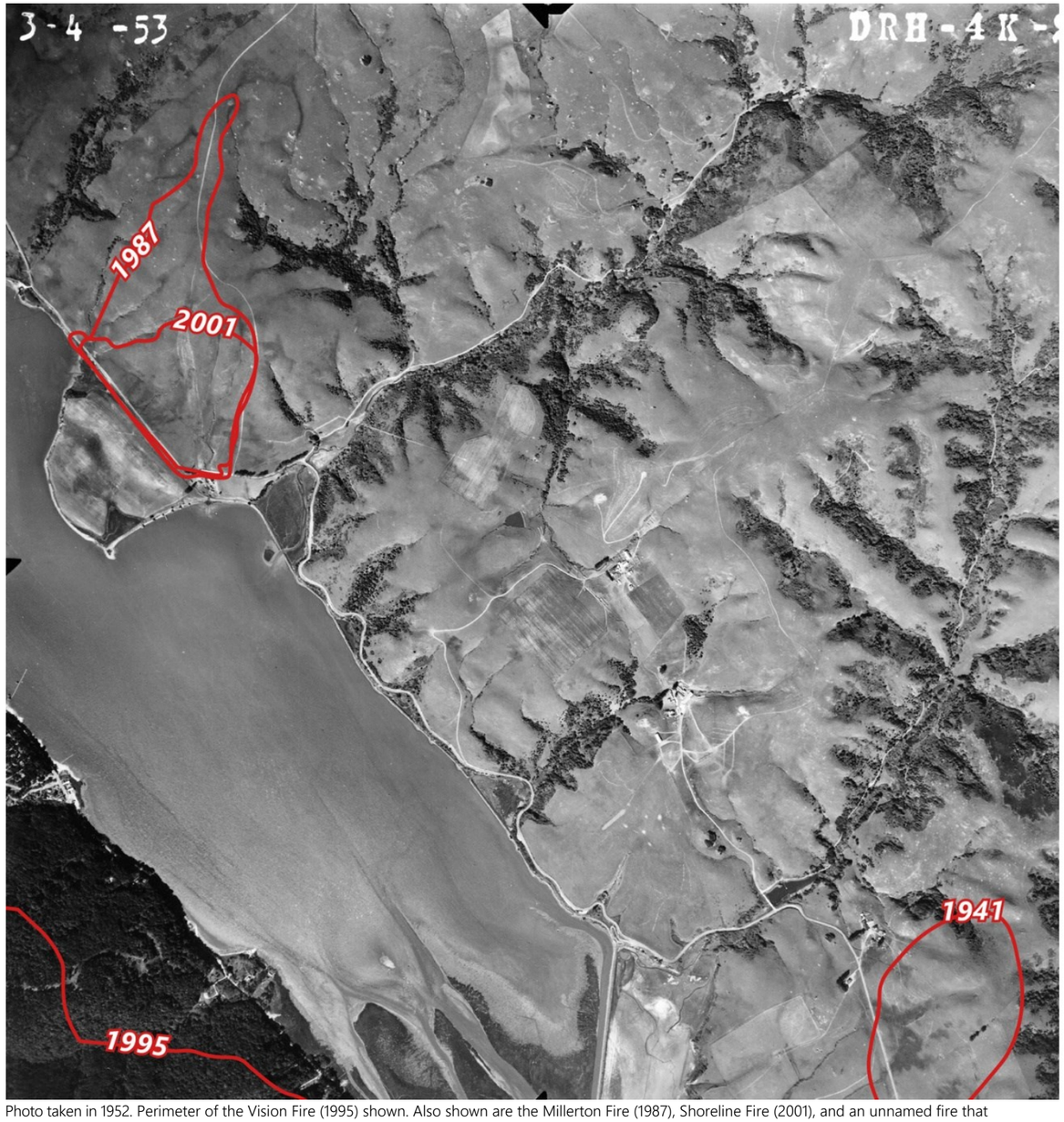


Photo taken in 1952. Perimeter of the Vision Fire (1995) shown. Also shown are the Millerton Fire (1987), Shoreline Fire (2001), and an unnamed fire that occurred in 1941.
Source: County of Marin 2024; CAL FIRE 2024.

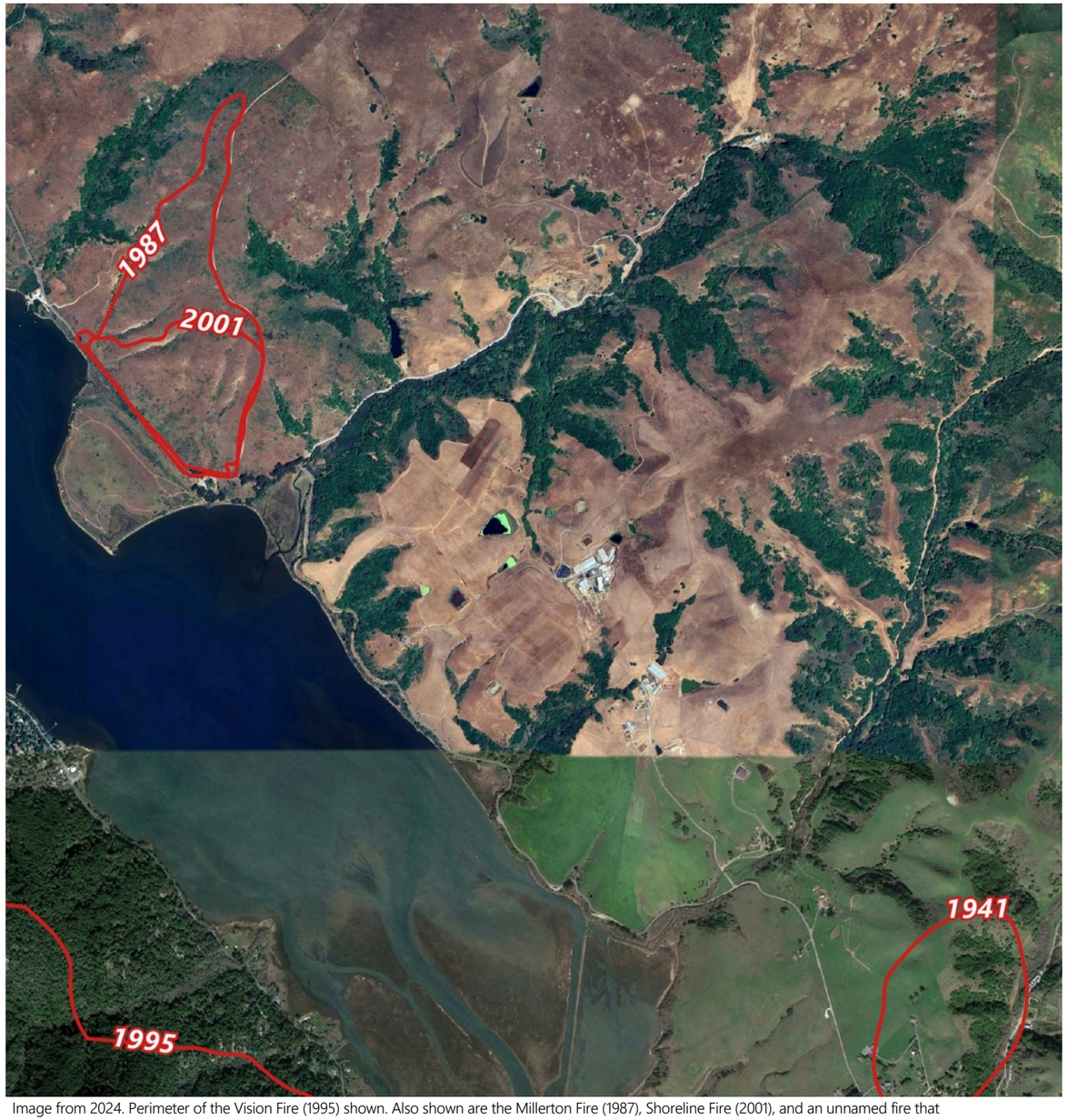


Image from 2024. Perimeter of the Vision Fire (1995) shown. Also shown are the Millerton Fire (1987), Shoreline Fire (2001), and an unnamed fire that occurred in 1941.
Source: Google Earth 2024; CAL FIRE 2024.

Note: Images show the perimeters of historic fires that burned within the Inverness Area, Millerton Area, and surrounding areas. Also shown is the increased vegetation densities and expansion of coyote brush into grasslands between 1952 and 2024.

Figure 2-2b Aerial Photos of Tomales Bay State Park from 1952 and 2024

Tribal Cultural Resources

FIGR is the only federally recognized Indian Tribe that is culturally affiliated with what is today Marin County. The Tribe is comprised of Coast Miwok and Southern Pomo peoples whose cultural and ancestral lands encompass what are now Marin and Sonoma Counties. Tomales Bay SP is part of a larger sacred landscape that holds cultural and religious significance to FIGR. Cultural and natural elements of the Tomales Bay SP environment are interconnected with each other and with the Tribe today through stewardship and active use and constitute tribal cultural resources (TCRs). The relationship between FIGR and the larger Tomales Bay region has been acknowledged by neighboring Point Reyes National Seashore through a 20-year General Agreement for Government-to-Government Partnership between FIGR and the National Park Service.

Through government-to-government consultation, FIGR will be a decision maker in all projects that concern the TCRs, lands, and waters of Tomales Bay SP. California Assembly Bill 52 establishes California Native American Tribes as the subject matter experts on what constitutes TCRs, and FIGR possesses specific knowledge about TCRs, such as the forests of this region (GGNPC 2023).

CSP recognizes that both cultural and natural resources constitute TCRs. CSP further recognizes that these resources must be considered equally and protected in tandem. In recognition of FIGR's TK concerning the lands, waters, environments, beings, and relationships that are essential to land stewardship and cultural and natural resource management in Tomales Bay SP, CSP and FIGR collaboratively developed Tribal Cultural Resource SPRs during development of the PWP. Projects shall fully integrate these SPRs (Attachment A). In addition, CSP and FIGR will consult and collaborate in prioritizing treatment areas and the treatment activities used in each area.

The Tribe's TK is the intellectual property and cultural patrimony of the Tribe, and care should be taken to ensure that the confidentiality of information shared by the Tribe is maintained and protected. The Tribe's TK should also be considered on the same level of intellectual merit as western science even though these two knowledge systems represent different and sometimes incommensurable perspectives (GGNPC 2023).

TCRs are sites, features, objects, places, landscapes, or sacred places with cultural value to tribes. Consultation with local Native American tribes is required to identify these areas that may require protection measures. The Marin Regional Forest Health Strategy (GGNPC 2023) includes a framework for how to work collaboratively with FIGR to integrate TK and practices into land stewardship in Marin County, which is the Tribe's ancestral territory. That information is detailed in *Chapter 3: Stewardship and Partnership with the Federated Indians of Graton Rancheria* (Nelson and GGNPC 2023). The 2023 Marin Regional Forest Health Strategy is a resource and guide for forest health management and was used as such throughout the PSA/Addendum. See Chapter 6, "References," for a complete citation to this important work.

2.4 PROPOSED INITIAL TREATMENTS

The CalVTP ecological restoration treatment type would be implemented to enhance natural habitats by restoring ecological conditions and natural and cultural processes that promote vegetation community regeneration, healthy habitat structure, density, and composition, and reduce wildfire impacts. The proposed Project's CalVTP treatment activities are manual treatments, mechanical treatments, prescribed burning, and herbicide application. Proposed treatments would be implemented consistent with the Coastal VTS (Attachment B) and PWP Project Standards adopted in the March 2024 Tomales Bay SP Forest Health and Wildfire Resilience PWP to protect sensitive coastal resources. Ongoing collaboration and consultation with FIGR will also guide project development to integrate TK and perspectives.

The proposed initial and maintenance treatments are summarized in Table 2-1.

Table 2-1 Proposed CalVTP Treatments

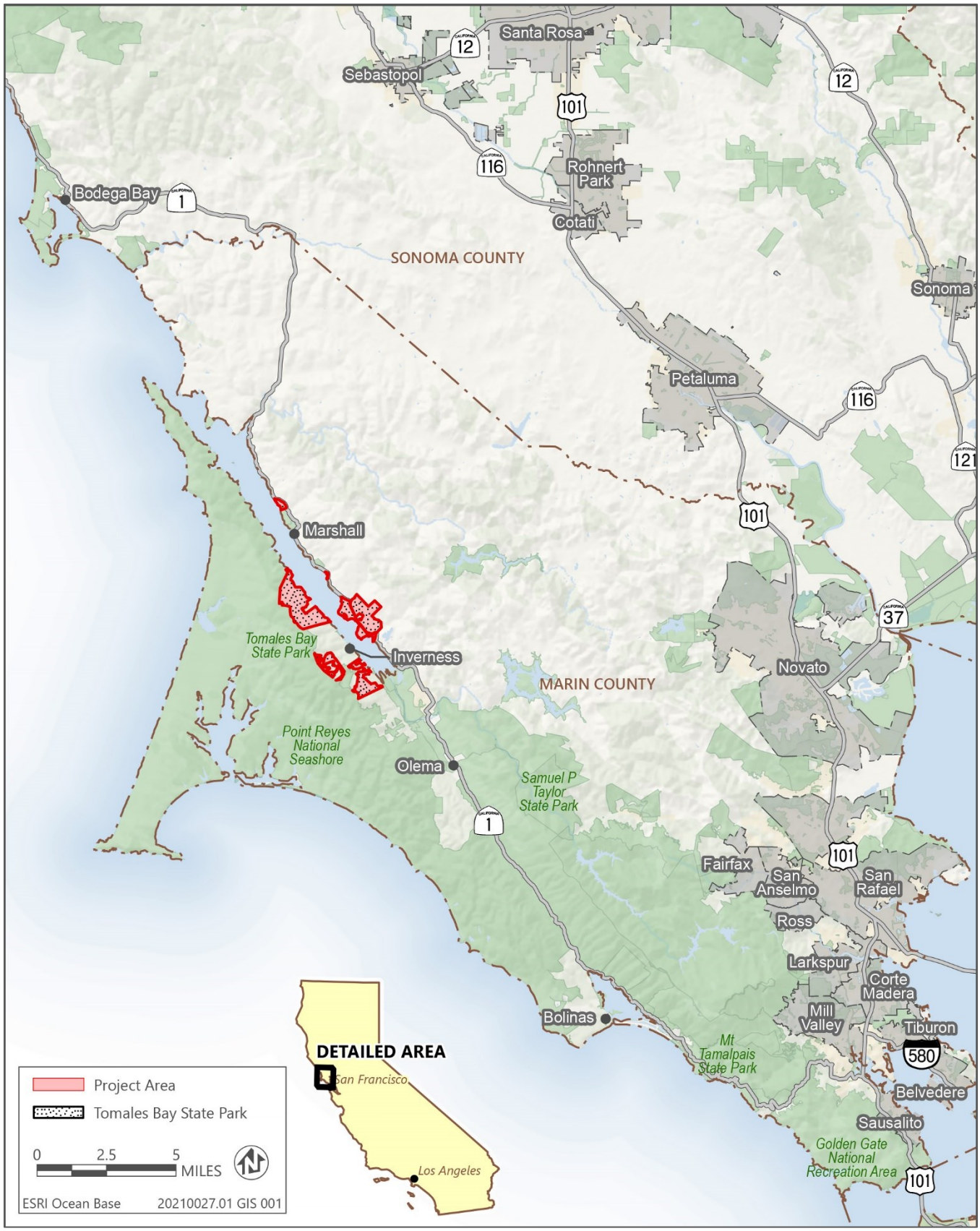
CalVTP Treatment Types	Treatment Description	CalVTP Treatment Activity	Total Acreage*	Equipment Used and Crew Size	Timing of CalVTP Treatments
Ecological Restoration	Forest health and ecosystem resilience treatments aimed at restoring ecosystem processes, native stand conditions, and ecosystem resiliency.	Prescribed Burning (pile burning, broadcast burning, cultural burning, air curtain burning)	967 acres	▶ Drip torches, fuzees, propane torches and other ignition devices ▶ Hand tools, chainsaws, and other hand operated equipment. ▶ Fire engines, water trucks, excavators, bulldozers, helicopters ▶ ATVs, UTVs and trucks, wheeled and tracked air curtain burners	Year-round (Subject to conditions and parameters outlined)
		Mechanical	428 acres	▶ Tracked excavators, skidders, tractors, water trucks, chainsaws, brush cutters, pole-saws, chippers, masticators, flail and rotary mowers. ▶ ATVs, UTVs and pick-up trucks	Year-round (Subject to conditions and parameters outlined)
		Manual	1,170 acres	▶ Chainsaws, hand saws, brush cutters, pole-saws and/or other mechanized and non-mechanized hand tools ▶ ATVs, UTVs and pickup trucks	Year-round (Subject to conditions and parameters outlined)
	Prevent the establishment and spread of exotic invasive plants	Herbicide	< 6 acres across the entire Project area	▶ Backpack sprayer and cut stump application devices (drippers)	Year-round (Subject to conditions and parameters outlined)
	Reduce target plant populations**	Prescribed Herbivory**	40 acres**	▶ Up to 1 mile of temporary fencing** ▶ Portable water troughs** ▶ Water truck, UTV, or mechanized wheelbarrow**	Year-round (Subject to conditions and parameters outlined)**

* The treatment acreage total is greater than 1,590 because more than one treatment type may be used on any given acre.
** Only proposed as a maintenance treatment. Not included in initial treatments.
Source: Data received from CSP in 2023.

Implementation of initial treatments would require between 1 and 20 crew members (including FIGR Tribal crews if available) depending on the treatment activity, along with their associated vehicles to travel to and from the treatment areas. Up to four crews may be conducting treatments simultaneously throughout the Project area. Treatment activities would occur during the daytime, typically between approximately 7:00 a.m. and 6:00 p.m. Monday through Friday, and 9:00 a.m. and 5:00 p.m. on Saturdays, except for broadcast and cultural burning. Staffing levels during prescribed burns would be determined in a prescribed burn plan specific to each burn unit and would be sufficient to ensure that safety and burn objectives are met. Staffing levels would be consistent with the number of workers assumed in the CalVTP Program EIR.

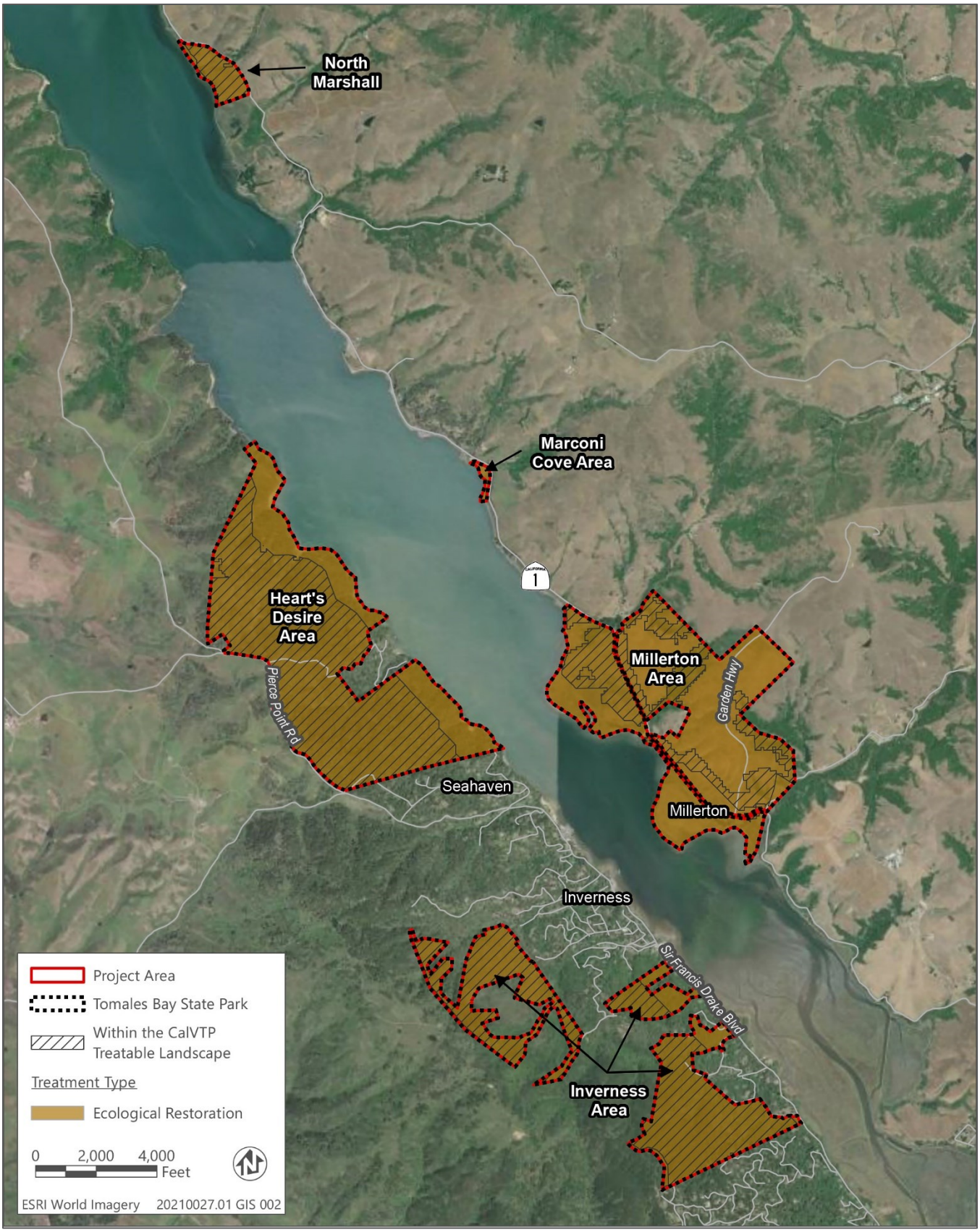
Treatments would be scheduled annually during the term of the PWP, scheduled to begin in fall of 2024 depending on funding, equipment/contractor availability, weather conditions, and other restrictions. Treatments could occur on any date that offers suitable conditions during the year, except during seasonal avoidance of sensitive resources. Herbicide application would generally avoid the wet season, but could occur on any date that offers suitable conditions during the year, in accordance with the Coastal VTS, CalVTP SPRs, applicable laws, and regulations. Prescribed burning may occur throughout the year, but would typically occur in fall, winter, or spring.

The proposed CalVTP treatment areas are shown in Figures 2-3 and 2-4.



Source: Data received from CSP in 2022.

Figure 2-3 Project Location



Source: Data received from CSP in 2022.

Figure 2-4 Project Area

2.4.1 Treatment Type – Ecosystem Restoration

The proposed Project would implement the CalVTP ecological restoration type and meet the requirements of an adopted Coastal VTS in the PWP. The activities proposed to implement the ecological restoration treatments are manual treatments, mechanical treatments, prescribed burning, and herbicide application. In addition, prescribed herbivory is proposed only as a maintenance treatment and is described in Section 2.5 below. The initial treatment type and treatment activities are described below.

Ecological restoration would be implemented to protect and improve forest regeneration and resiliency, create a dynamic mosaic of vegetation types and age classes in the park, and reduce excess fuels thereby reducing the risk of catastrophic wildfire (Stephens et al. 2016; Stephens et al. 2023; Wu et al. 2023). Treatments would focus on restoring ecosystem processes, conditions, and resiliency to reflect vegetative composition, structure, habitat values, and fuel conditions expected prior to modern fire exclusion. Ecological restoration treatments may also have the co-benefit of reducing wildfire risk and may provide opportunities for more effective fire suppression tactics during a wildfire. Ecological restoration treatments adjacent to existing roads would reduce fuels, making travel on these roads more feasible during a fire.

Forests within Tomales Bay SP are in decline due to more than a century of fire exclusion and introduced pathogens. The last substantial fire in the Heart's Desire Area of the park burned between 1917 and 1934 (CAL FIRE 2022). The 1995 Vision Fire burned portions of the three parcels composing the Inverness Area (CAL FIRE 2022) but did not affect most of the park. This has resulted in very little Bishop pine and hardwood forest regeneration because of lack of fires that open serotinous cones, loss of seed viability, heavy accumulation of dead and downed woody material, dense understory shrubs, and thick layers of litter and duff. Additionally, the buildup of litter and duff, accumulation of downed woody debris, dense understory growth, and the large number of dead standing and dying trees from age senescence and pathogens has created hazardous fuel conditions that increase the potential for catastrophic wildfire in the park (Figure 2-5).

If a wildfire occurs in the Project area prior to completion of treatments, investigations would be conducted to determine how much of each habitat type burned and if there was a significant change in conditions from the fire. CSP would assess whether site conditions have changed sufficiently such that a new or substantially more significant environmental impact would occur, compared to what is described in the PSA/Addendum. If CSP staff find the PSA/Addendum is no longer sufficient to address potential significant environmental impacts of the next proposed treatment, they will determine whether a new or revised PSA/Addendum or other environmental analysis is warranted. If CSP staff find the PSA/Addendum remains sufficient then initial and maintenance activities as described below would continue to be conducted as needed in burned and unburned areas. Frequent site-specific inspections and assessments would be conducted to determine resource protection needs and determine if active ecological restoration treatments are necessary to protect and improve Bishop pine and hardwood stand regeneration and resiliency, consistent with the management directive of Tomales Bay SP.

Forest resilience is a statewide priority, and the proposed treatments address declining forest health within Tomales Bay SP consistent with this priority. As part of the regional focus on forest health, FIGR and the One Tam partners, California State Parks, Marin County Parks, Marin Water, the National Park Service, and the Golden Gate National Parks Conservancy, worked together to develop the Marin Regional Forest Health Strategy. Part of that strategy is a collaborative definition for forest resilience: "Resilience is the capacity of systems to absorb or recover from disturbance while undergoing change to retain desired ecosystem services and functions within a mosaic of forest types" (GGNPC 2023). The goals of the Project focus on improving ecological health and resilience of the habitats within Tomales Bay SP.

Source: Ascent 2023.

Note: Ongoing mortality of tanoak and coast live oak trees from Sudden Oak Death and mortality of Bishop pine trees have altered the forest structure and density, increasing wildfire risk. Treatment would reduce biomass to reflect levels expected had fire been active in this landscape at historic frequencies and intensities and would promote forest regeneration and resilience.

Figure 2-5 Forest Conditions within Tomales Bay State Park

BISHOP PINE FOREST HABITAT AND TREATMENT

Bishop pine is a closed-cone species with a relatively short lifespan, typically living 80–100 years, with the oldest known trees probably not more than 200 years old (Harvey and Agne 2021; Stuart and Sawyer 2001). Bishop pines are generally considered to be fire-dependent and are adapted to high intensity fires that result in stand replacement. The historic fire return interval for Bishop pine forest in the region is around 40 years (Sawyer et al. 2009). High intensity fire typically causes mortality of the standing Bishop pines, fire opens the serotinous cones stored in the tree canopy allowing seed release, consumes the duff and litter layers within the forest exposing mineral soil creating a favorable seedbed, and facilitates seed germination. This process drives regeneration and establishes new even-aged early seral stands. As described by Harvey and Agne (2021), Bishop pine stands progress through three seral stages during their life. Early-seral stage stands are approximately 0–10 years in age and have high Bishop pine seedling density and plant diversity, low seed production, and an open canopy with large snags (Harvey and Agne 2021). Mid-seral stage Bishop pine stands are around 10–50 years in age, have high tree density, continuous canopy cover, low plant diversity, and moderate seed availability (Harvey and Agne 2021). Both the early- and mid-seral stages go through a natural process of density dependent self-thinning. The late-seral or old-growth stage for Bishop pines is

approximately 50–100 years and is characterized by lower density stands with canopy openings, high plant diversity, and high seed availability (Harvey and Agne 2021).

Tomales Bay SP has approximately 1,100 acres of Bishop pine distributed across the western area of the park surrounding Heart's Desire Beach and in two parcels on Inverness Ridge (Figure 2-6a, Figure 2-6b). The forest within the park is an important part of the larger distribution of Bishop pine on the Point Reyes peninsula. Late seral stage Bishop pines in the Heart's Desire area of the park are senescing and dying as they reach the end of their 80–100-year life span (Avocet Research Associates and Gaman 2019; Harvey and Agne 2021; Stuart and Sawyer 2001), as that area of the park has not experienced a significant fire in approximately 90–107 years (CAL FIRE 2022, Dawson 2021). Seed availability and viability diminishes in very old trees and regeneration is dependent on viable seeds in the tree canopy during a fire. Cones that are retained on Bishop pines can remain viable for up to 10 years or more. Cones on the ground may also have viable seeds but are likely to be consumed or destroyed by high fire temperatures. In the absence of natural fire and Coast Miwok cultural burning, there is insufficient Bishop pine regeneration in the late seral stands to sustain the Bishop pine forest (Avocet Research Associates and Gaman 2019). In the absence of fire or management, Bishop pine will not regenerate, and the late seral stage stands will die without reproducing. There are currently no early seral stands of Bishop pine forest in the park. Much of the Bishop pine forest on Inverness Ridge consists of mid-seral stage stands that established after the Vision Fire in 1995. Bishop pine forest faces numerous threats across its range and in Tomales Bay SP including diminished water availability due to drought and changes in fog cover, fire suppression resulting in a lack of regeneration and long-term conversion of Bishop pine dominated forest to a hardwood dominated forest, and pathogens such as western gall rust (*Peridermium harknessii*) and pine pitch canker (*Fusarium circinatum*).

Bishop pine treatment would focus on creating a mosaic of seral stage stands across the park, such that all seral stages are represented at the landscape scale, through the enhancement of stand regeneration and enhanced resilience of existing stands. Bishop pine resilience would be enhanced by increasing stand diversity so each seral stage is represented in the park. Given the long absence of fire in the park, late-seral stage Bishop pine stands are reaching the end of their life, and many are dying without reproducing. Project treatments would focus on Bishop pine regeneration and establishing early-seral stage stands in the park using prescribed burning with a focus on the use of pile burning to create even aged early-seral stage stands. Broadcast burning intended to mimic stand replacing fire is not feasible in Bishop pine forest in the park due to the risk of high severity crown fires and the proximity of local communities. However, limited broadcast burning may be possible in small areas that have had significant pre-treatment using manual, mechanical, and/or pile burning, to reduce fuels for the purpose of promoting regeneration of Bishop pines in select areas to more closely mimic the regeneration and seedling density conditions that occur from natural or cultural fire.

Limited broadcast burning in Bishop pine forest would be evaluated in consultation with FIGR and Marin County Fire, and only considered in select locations where there is road access, a significant setback distance from neighboring communities, where there are few surviving standing pine trees, and under specific weather and topographic conditions. The goal of prescribed burning treatments is to promote seed-producing seral stands, even if they may be smaller than the stands produced by a larger fire.

Modeling of post-fire Bishop pine regeneration has indicated that the best predictors for regeneration are whether the pre-fire vegetation was dominated by Bishop pine and proximity to pre-fire stands of Bishop pine (Forrestel et al. 2011). Therefore, treatment prescriptions in Bishop pine forest focus on facilitating regeneration by removing and thinning some understory vegetation, select overstory trees, and burning in a manner that would mimic some of the benefits of a stand replacing fire by exposing the cones in the remaining canopy trees to heat. Cones collected from the treatment area could also be added to burn piles at the end of the pile burning process to facilitate additional cone opening, germination, and seed dispersal into the treatment area. The burning will help expose mineral soil within the stand to facilitate Bishop pine seedling establishment. Promoting new Bishop pine stands would help establish additional seed producing aged stands across the park. To achieve high density germination and seedling establishment that approximates seedling density associated with a stand replacing fire, numerous smaller piles would be positioned in a mosaic pattern on the landscape or small select areas could be evaluated and considered for broadcast burns after extensive pre-treatments have occurred and under very specific conditions.

Source: Ascent 2023.

Note: Late seral stage Bishop pine forest with dead fallen Bishop pines, dense understory shrubs, and deep layers of litter and duff. In the absence of fire there is insufficient Bishop pine regeneration to sustain the Bishop pine forest.

Figure 2-6a Bishop Pine Forest within Tomales Bay State Park

Piles would be placed adjacent to the driplines of retained Bishop pines allowing convective heat from the piles to open cones in retained trees. Vegetation removal prior to pile burning and the density of piles would create conditions on the ground for Bishop pine germination in the areas surrounding the retained canopy trees. Prolonged exposure to temperatures greater than 257 degrees Fahrenheit (F) is lethal to Bishop pine seeds, therefore cones within piles for the duration of the pile burn would likely not survive. Cones would be added at the end of the pile burning process when they would be exposed to temperatures from 185 degrees F to 200 degrees F for short periods or opened in an oven and spread in the treatment area after the piles have been consumed. To further promote Bishop pine regeneration, cones could be collected from within the park, opened to collect seed, seedlings grown in a nursery setting, and trees planted within treatment areas under the direction of a Registered Professional Forester (RPF).

In areas prioritized for Bishop pine regeneration, ecological restoration treatments would focus on the removal and thinning of understory vegetation under and adjacent to live Bishop pine trees to reduce competition and fuels, facilitate burning, expose soil to promote Bishop pine regeneration and establishment, and Bishop pine planting to promote Bishop pine regeneration. Treatments would also be used to protect and enhance late seral stage stands that are still producing cones by focusing treatments on reducing and thinning dense understory fuels and downed trees.

Source: Ascent 2023.

Note: Ongoing mortality of late seral stage Bishop pines threatens the persistence of the species in the park in the absence of fire. Treatments would facilitate regeneration by mimicking some of the benefits of a stand replacing fire primarily with pile burning. Limited broadcast burning may be possible in small areas that have had significant pretreatment and only in select locations where there is road access and a significant setback distance from neighboring communities.

Figure 2-6b Bishop Pine Forest within Tomales Bay State Park

HARDWOOD FOREST HABITAT AND TREATMENT

Hardwood-dominated forests within Tomales Bay SP are declining due to the absence of fire and the presence of the pathogen *Phytophthora ramorum*, which causes sudden oak death disease that results in mortality in tanoak (*Notholithocarpus densiflorus*) and coast live oak (*Quercus agrifolia*) (Figure 2-7). While there are remaining tanoaks in Tomales Bay SP, many have been killed by sudden oak death and are now downed trees on the forest floor. Tanoaks are an important component of the hardwood forest in the park and have "provided Coast Miwok people with sustenance for thousands of years" (Nelson and GGNPC 2023). Preserving tanoaks and promoting their regeneration and resilience is a shared CSP and FIGR priority in the park. Oaks are culturally significant species to the Coast Miwok, specifically tanoak, blue oak, and black oak are necessary for the health of FIGR citizens and the continuance of FIGR's food traditions. Tanoak are especially susceptible to sudden oak death and it is crucial to work with FIGR to better understand how they can be protected (Nelson and GGNPC 2023). A very dense understory is present in many of the hardwood stands where shrub growth has been facilitated by canopy openings from the loss of tanoaks and coast live oaks.

Source: Ascent 2023.

Note: Unnatural accumulation of duff, litter and fuel in mixed hardwood forest due to the absence of fire which inhibits forest regeneration and increases vulnerability to extreme fire. Treatment would reduce biomass to reflect levels expected had fire been active in this landscape at historic frequencies and intensities and would promote forest regeneration and resilience.

Figure 2-7 Coast Live Oaks within Tomales Bay State Park

The accumulation of downed woody material, the dense shrub understory, and the significant duff and litter layers has resulted in very little hardwood regeneration in some locations and has created a higher density of fuels in the understory (Figure 2-8). Ecological restoration would promote and enhance hardwood forest regeneration and resilience. Within mature hardwood forests, treatments would focus on removal and thinning of trees and shrubs to reduce fuels and promote species resilience and regeneration. Prescribed burn treatments (i.e., pile burning and broadcast burning) would be used in hardwood dominated forests to promote forest health and native flora, improve resilience, and reduce biomass and fuels. Prescribed burn areas may be treated with manual and/or mechanical treatments prior to burning to reduce fuel loads.

Source: Ascent 2023.

Note: Pathogen driven proliferation of dense shrubs in the understory where tanoak and coast live oak mortality from Sudden Oak Death has created canopy gaps and suppressed hardwood regeneration increasing potential habitat impacts from high intensity wildfire. Treatment would reduce biomass to reflect levels expected had fire been active in this landscape at historic frequencies and intensities.

Figure 2-8 Mixed Hardwood Forest within Tomales Bay State Park

GRASSLAND AND SHRUBLAND HABITAT AND TREATMENT

Grasslands in the park are being increasingly converted to shrublands in the absence of frequent low intensity fires and in many places have a very dense thatch layer limiting native forb growth (Figure 2-9). Grasslands in the park are also adversely affected by invasive species. Treatments that would mimic the beneficial effects of a low to moderate intensity wildfire, would protect, expand, and improve grassland and shrubland habitats and reduce fuels in the park through the removal of thatch, encroaching coyote brush (*Baccharis pilularis*), and invasive woody plants (e.g., French broom [*Genista monspessulana*], blue gum [*Eucalyptus globulus*], silver wattle [*Acacia dealbata*]). Although small, scattered patches of chaparral habitat are mapped in the park, treatment is not proposed within chaparral habitat.

Source: CSP 2024.

Note: The dense cover and thatch of non-native grasses inhibits the growth of native grasses and forbs and increases risk from high intensity wildfire. Treatments will mimic the beneficial effects of a low to moderate intensity wildfire to protect, expand, and improve grassland habitat and resilience.

Figure 2-9 Grassland and Coyote Brush within Tomales Bay State Park

Most treatments would not occur within 50 feet of the outer (i.e., landward) edge of riparian vegetation or within 100 feet of wetlands or top of stream banks. As described in the PWP's Coastal VTS and Mitigation Measure BIO-4, adjustments and exceptions to the 100-foot wetland buffer may be made for activities that create a net environmental improvement over existing conditions and avoidance measures would prevent impacts that significantly degrade the wetland. Treatment activities that may occur within the wetland buffer would be limited to those that would restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems. These treatments would be focused on broadcast or cultural burning, targeted herbicide application, and manual treatments that would be beneficial in removing invasive plant species (e.g., ice plant [*Carpobrotus edulis*]) and coyote brush that are encroaching into grassland habitats. For example, in the Millerton Point Area of the park native grasslands encroached by coyote brush abut tidal wetlands characterized by saltgrass flats, and pickleweed mats vegetation alliances. Additionally, wetlands, such as small patches of rushes (*Juncus* spp.), are widely dispersed throughout the park, including within Bishop pine habitat. Broadcast or cultural burning is the only treatment that may occur within wetlands, and only ecological restoration treatments that create a net environmental improvement over existing conditions would occur within 100 feet of wetlands.

2.4.2 Ecological Restoration Treatment Specifications

Ecological restoration treatment specifications developed for CSP by Environmental Resource Solutions and Tukman Geospatial (2002) and organized by habitat unit type are described below. All treatment specifications would be implemented according to the measures detailed in the SPRs, Coastal VTS, required mitigation measures, and the below retention standards for the maintenance of wildlife habitat function.

RETENTION STANDARDS FOR THE MAINTENANCE OF WILDLIFE HABITAT FUNCTION

- Retain unique and diverse features such as larger logs, snags, unique trees or brush clumps, wildlife nests, den logs, or other features as feasible.
- Leave logs greater than 18 inches DBH in long lengths, well-distributed within the treatment area to maintain habitat (wildlife nests and den logs), improve aesthetics, reduce biomass management, and reduce air quality impacts from burning.
- Retain at least one to three snags per acre, prioritize the largest snags that exhibit the form and decay characteristics favored by wildlife for retention.
- Retain woodrat middens for wildlife habitat when feasible.
- Retain existing native herbaceous species to the extent practicable.
- Limit mastication to the cutting or chopping of above-ground vegetation to minimize disturbance and impacts to burrowing wildlife and allow intact root systems to resprout.
- Leave an average chip depth of 3 inches with a maximum of 4 inches, in the limited areas of on-site chipping.

HABITAT UNIT SPECIFIC ECOLOGICAL RESTORATION TREATMENT SPECIFICATIONS

The habitat units described below serve to stratify the vegetation to recognize distinct ecological characteristics that may benefit from different treatments.

High Cover and Open Bishop Pine Habitat Units

High Cover Bishop Pine habitat units are characterized by high canopy cover and strongly dominated by Bishop pine. Mean LiDAR-derived canopy cover is 69 percent, with intermittent to continuous tree canopy (Environmental Resource Solutions and Tukman Geospatial 2002). Based on the 2019 forest inventory plots (Avocet Research Associates and Gaman 2019), this habitat unit averages 60 live Bishop pine trees per acre (TPA) and standing dead Bishop pine occupy an average of 26 TPA Generally, these stands have significant density of understory brush and there is little to no Bishop pine regeneration. This habitat type largely occurs on steeper slopes (>35 percent slope), consistent with the findings of Harvey and Holzman (2014) where high density closed-canopy Bishop stands developed on steep slopes after fire, and open-canopy Bishop pine stands with high shrub cover developed on gentler slopes. Open Bishop pine habitat units are characterized by low to moderate density Bishop pine stands, where young hardwoods and shrubs are generally present between individual or groups of Bishop pine trees. Mean canopy cover for this habitat unit is 43 percent, reflecting a dispersed canopy of Bishop pines with many gaps (Environmental Resource Solutions and Tukman Geospatial 2002). Based on the 2019 forest inventory, stands average 25 TPA of live Bishop pine and 10 TPA dead Bishop pine. The gaps between Bishop pine trees are generally colonized by shrubs, along with young hardwoods like coast live oak and madrone. This habitat type primarily inhabits gentler slopes compared to the high cover Bishop pine type. Late seral Bishop pine stands generally have a diminishing number of live Bishop pine trees per acre and an increasing number of standing dead trees per acre indicative of a senescing forest that is not sufficiently regenerating to sustain the forest type. Treatment in the Bishop pine habitat would include the removal and thinning of vegetation under and adjacent to live Bishop pine trees to reduce

competition and fuels, facilitate prescribed burning, and expose soil to promote Bishop pine regeneration and establishment in priority stands.

- Create small treatment areas of 5 to 10 acres.
- Remove standing dead trees and shrubs.
- Selectively thin live understory trees, generally 10 inches diameter at breast height (DBH) and smaller, where thinning would accomplish restoration goals.
- Remove low and fair vigor hardwood trees, generally 10 inches DBH and smaller.
- Remove low and fair vigor Bishop pine trees, generally 10 inches DBH and smaller.
- Retain high vigor Bishop pine, tanoak, madrone (*Arbutus menziesii*), and oaks, generally greater than 10 inches DBH.
- Larger trees may be selectively removed as necessary to create the canopy gaps for horizontal and vertical fuel separation, where prescribed burns may be completed, or to provide potential seed sources or canopy openings for mature Bishop pinecones, which are usually located in the upper canopy on the mature trees.
- Where scattered Douglas fir (*Pseudotsuga menziesii*) are present and threaten to spread rapidly and convert other native habitats in the absence of periodic fire, thin or remove Douglas fir trees less than 30 inches DBH to limit spread/encroachment and retain larger scattered Douglas fir.
- Remove or thin nonnative trees (e.g., eucalyptus, holly [*Ilex aquifolium*], acacia [*Acacia* spp.], Monterey pine [*Pinus radiata*]) of any size, unless retention is required.
- Remove nonnative invasive plants.
- Prune retained trees to a maximum of 12 feet height, or no greater than 50 percent of live crown.
- Remove, thin or trim understory vegetation under and near the Bishop pine canopy and up to 100 feet from existing Bishop pine trees; these areas are suitable for pile burning to promote Bishop pine regeneration.
- Where only scattered individuals or small groups of Bishop pine exist, remove, thin, or trim understory vegetation under and near the Bishop pine canopy up to 150 feet from existing Bishop pine trees to facilitate Bishop pine survival and regeneration.
- In Bishop pine treatment areas where prescribed burning would be used to promote regeneration, retain a minimum of approximately 10 percent cover of understory shrubs and trees within each treatment area, to allow for sufficient space for burn piles. In all other treatment areas, maintain approximately 20 percent cover of understory shrubs and trees within each treatment area in a mosaic pattern for wildlife and plant habitat and aesthetics.
- Evaluate and consider limited broadcast or cultural burning in the understory of Bishop pine forests after extensive pre-treatment to reduce fuel loads, and only in select locations where there is road access, a significant setback distance from neighboring communities, where there are few surviving standing pine trees, and under specific weather and topographic conditions.
- Place burn piles adjacent to the driplines of retained Bishop pine to facilitate serotinous cone opening by heat convection into the canopy.
- Place Bishop pinecones in burn piles at the end of the pile burning process when cones can be exposed to temperatures from 185 degrees F to 200 degrees F for short periods.
- Plant Bishop pine seedlings to promote Bishop pine regeneration.
- Remove hazard trees adjacent to structures, parking areas, and picnic areas consistent with CSP hazard tree policy.

Mid-Seral Bishop Pine Habitat Units

Mid-seral Bishop pine habitat units are characterized by naturally regenerated stands of Bishop pine that developed after the 1995 Vision Fire. The mid-seral age Bishop pine habitat units have a high tree density with nearly uniform canopy cover and are currently experiencing naturally occurring density-dependent mortality. Bishop pine within this habitat unit have good cone production potential and may represent the highest quality cone and seed sources within the park. Periodic efforts to harvest cones and secure viable seed from these stands is recommended. Recent research on the Point Reyes Peninsula suggests that mid-seral stands are likely to continue along a trajectory of self-thinning and progression towards late-seral conditions absent active management (Harvey and Agne 2021). Interruption of the self-thinning process with forest treatments may have unintended ecological impacts. However, treatments aimed at reducing impacts from disease and fuel loads associated with disease driven mortality may be implemented in select priority areas if site specific conditions and further science warrant its use. In that case, treatment in the mid-seral Bishop pine habitat units would target stem density and basal area thinning to reduce the number of stems per acre to accelerate succession toward late-seral stage. Thinning would occur when trees have met or exceeded the age of reproductive maturity to avoid substantial loss of the canopy seedbank and reduced future forest resilience.

- Create small treatment areas of 5 to 10 acres.
- Remove standing dead trees and shrubs.
- Selectively thin small trees generally 2–6 inches DBH to approximately 15 foot spacing.
- Where scattered Douglas fir are present and threaten to spread rapidly and convert other native habitats in the absence of periodic fire, thin or remove Douglas fir trees less than 30 inches DBH to limit spread/encroachment and retain larger scattered Douglas fir.
- Remove or thin nonnative trees (e.g., eucalyptus, holly, acacia, Monterey pine) of any size, unless retention is required.
- Remove nonnative invasive plants.
- Prune retained trees to a maximum of 12 feet height, or no greater than 50 percent of live crown.
- Remove hazard trees adjacent to structures, parking areas, and picnic areas consistent with CSP hazard tree policy.

Mixed Hardwood/Bishop Pine Habitat Units

The mixed hardwood/Bishop pine habitat units have diverse structure and composition and are characterized by high cover stands with low to moderate density of Bishop pine, and where hardwoods represent the dominant vegetative canopy cover. Mean LiDAR-derived canopy cover across this habitat unit is 72 percent (Environmental Resource Solutions and Tukman Geospatial 2002). Bishop pine trees are intermixed with hardwood, individually or in small groups. Based on the 2019 forest inventory plots, these areas contain an average of 23 live Bishop pine TPA, dead Bishop pine occupy 4 TPA, and hardwood represent 239 TPA (Avocet Research Associates and Gaman 2019). Treatment in mixed hardwood/Bishop pine habitat units would include the removal and thinning of vegetation to reduce competition and fuels, facilitate prescribed burning, and promote regeneration and establishment of hardwoods and Bishop pines in priority stands.

- Create small treatment areas of 5 to 10 acres.
- Remove standing dead trees and shrubs.
- Selectively thin live understory trees, generally 10 inches DBH and smaller, where thinning would accomplish restoration goals.
- Remove low and fair vigor hardwood trees, generally 10 inches DBH and smaller.
- Remove low and fair vigor Bishop pine trees, generally 10 inches DBH and smaller.
- Retain high vigor Bishop pine, tanoak, madrone, and oaks, generally greater than 10 inches DBH.

- Larger trees may be selectively removed as necessary to create the canopy gaps for horizontal and vertical fuel separation, where prescribed burns may be completed, or to provide potential seed sources or canopy openings for mature Bishop pinecones, which are usually located in the upper canopy on the mature trees.
- Where scattered Douglas fir are present and threaten to spread rapidly and convert other native habitats in the absence of periodic fire, thin or remove Douglas fir trees less than 30 inches DBH to limit spread/encroachment and retain larger scattered Douglas fir.
- Remove or thin nonnative trees (e.g., eucalyptus, holly, acacia, Monterey pine) of any size, unless retention is required.
- Remove nonnative invasive plants.
- Prune retained trees to a maximum of 12 feet height, or no greater than 50 percent of live crown.
- Where scattered individuals or small groups of Bishop pine exist, remove, thin, or trim understory vegetation under and near the Bishop pine canopy up to 150 feet around each tree perimeter and beyond the dripline to facilitate Bishop pine survival and regeneration.
- Evaluate and consider limited broadcast or cultural burning in the understory of mixed hardwood/Bishop pine habitat units after extensive pre-treatment to reduce fuel loads including significant duff and litter layers, and only in select locations where there is road access, a significant setback distance from neighboring communities, where there are few surviving standing pine trees, and under specific weather and topographic conditions.
- In treatment areas where prescribed burning would be used to promote Bishop pine regeneration retain a minimum of approximately 10 percent cover of understory shrubs and trees within each treatment area, to allow for sufficient space for burn piles. In all other treatment areas, maintain approximately 25 percent relative cover of understory shrubs and larger hardwoods within each treatment area, that is not a specific Bishop pine regeneration treatment area, in a mosaic pattern for wildlife and plant habitat and aesthetics.
- Place burn piles adjacent to the driplines of retained Bishop pine to facilitate serotinous cone opening by heat convection into the canopy.
- Place Bishop pinecones in burn piles at the end of the pile burning process when cones can be exposed to temperatures from 185 degrees F to 200 degrees F for short periods. Plant Bishop pine seedlings to promote Bishop pine regeneration.
- Remove hazard trees adjacent to structures, parking areas, and picnic areas consistent with CSP hazard tree policy.

Mature Hardwood Habitat Units

Mature hardwood habitat units are strongly dominated by mature hardwood species with scattered Bishop pine. Average canopy cover is 74 percent (Environmental Resource Solutions and Tukman Geospatial 2002). Based on the 2019 forest inventory plots, Bishop pine represents 9 TPA, constituting a few larger, scattered trees; hardwoods represent 565 TPA; and bay laurel and coast live oak are the most common species (Avocet Research Associates and Gaman 2019). Madrone and tanoak are also present, though much of the tan oak is dead or dying from Sudden Oak Death (*Phytophthora ramorum*). The dense understory consists of tall shrubs. Treatment within this habitat unit would selectively remove trees and shrubs to reduce fuels and promote species resilience and regeneration to a density that is characteristic of healthy stands of the vegetation alliance and would generally reduce biomass, fuel levels, and significant duff and litter layers throughout the stand.

- Remove standing dead trees and shrubs.
- Selectively thin live understory trees, generally 10 inches DBH and smaller, where thinning would accomplish restoration goals.
- Remove low and fair vigor hardwood trees, generally 10 inches DBH and smaller.
- Remove low and fair vigor Bishop pine trees, generally 10 inches DBH and smaller.

- Retain high vigor Bishop pine, tanoak, madrone, and oaks, generally greater than 10 inches DBH.
- Larger trees may be selectively removed as necessary to create the canopy gaps for horizontal and vertical fuel separation, where prescribed fire may be completed, or to provide potential seed sources or canopy openings for mature Bishop pinecones which are usually located in the upper canopy on the mature trees.
- Where scattered Douglas fir are present and threaten to spread rapidly and convert other native habitats in the absence of periodic fire, thin or remove Douglas fir trees less than 30 inches DBH to limit spread/encroachment and retain larger scattered Douglas fir.
- Remove or thin nonnative trees (e.g., eucalyptus, holly, acacia, Monterey pine) of any size, unless retention is required.
- Remove nonnative invasive plants.
- Prune retained trees to a maximum of 12 feet height, or no greater than 50 percent of live crown.
- Selectively thin shrubs to maintain approximately 30 percent relative cover of understory shrubs within each treatment area in a mosaic pattern for wildlife and plant habitat and aesthetics.
- Remove hazard trees adjacent to structures, parking areas, and picnic areas consistent with CSP hazard tree policy.

Grassland and Shrubland Habitat Units

The grassland and shrubland habitat unit is dominated by annual and perennial grasslands and coyote brush shrublands. Grasslands in the park are being increasingly converted to shrublands and are adversely affected by invasive species. Treatments in this habitat unit would include the use of prescribed burning to remove encroaching shrubs, conifers, and invasive plants to promote habitat diversity and protect existing grasslands. Maintenance treatments in grasslands may include prescribed herbivory as described below in Section 2.5.

- Remove standing dead trees and shrubs.
- Remove encroaching conifer trees.
- Where scattered Douglas fir are present and threaten to spread rapidly and convert other native habitats in the absence of periodic fire, thin or remove Douglas fir trees less than 30 inches DBH to limit spread/encroachment and retain larger scattered Douglas fir.
- Remove or thin nonnative trees (e.g., eucalyptus, holly, acacia, Monterey pine) of any size, unless retention is required.
- Prune retained trees to a maximum of 12 feet height, or no greater than 50 percent of live crown.
- In areas formerly characterized by grassland vegetation types that have been converted to coyote brush scrub in the absence of fire and grazing, remove up to 100 percent of coyote brush shrubs to maintain grassland habitat and restore the grassland vegetation alliances.
- Remove hazard trees adjacent to structures, parking areas, and picnic areas consistent with CSP hazard tree policy.

2.4.3 Consistency with Coastal Vegetation Treatment Standards

The CalVTP Program EIR provides a methodical and efficient mechanism for CEQA compliance for vegetation treatment projects. CSP's Public Works Plan (PWP) is a companion to the CalVTP that provides Coastal Act compliance for ecological restoration projects that meet certain standards for protection of sensitive coastal resources (i.e., Coastal Vegetation Treatment Standards [VTS]). The PWP requires compliance with the Coastal VTS, which detail additional information about project design standards for projects within the Coastal Zone. All projects undertaken through the PWP will adhere to the Coastal VTS for projects in the Coastal Zone and all other Project Standards in Chapter 4 of the PWP. These standards were developed through extensive collaboration between CSP, Commission staff, and FIGR. This

PSA/Addendum addresses the components of the CalVTP as required pursuant to CEQA and includes information that responds to the Coastal VTS for Tomales Bay State Park as required pursuant to the Coastal Act and PWP. The Coastal VTS for the proposed Project can be found in Attachment B of this PSA/Addendum.

2.4.4 Treatment Activities

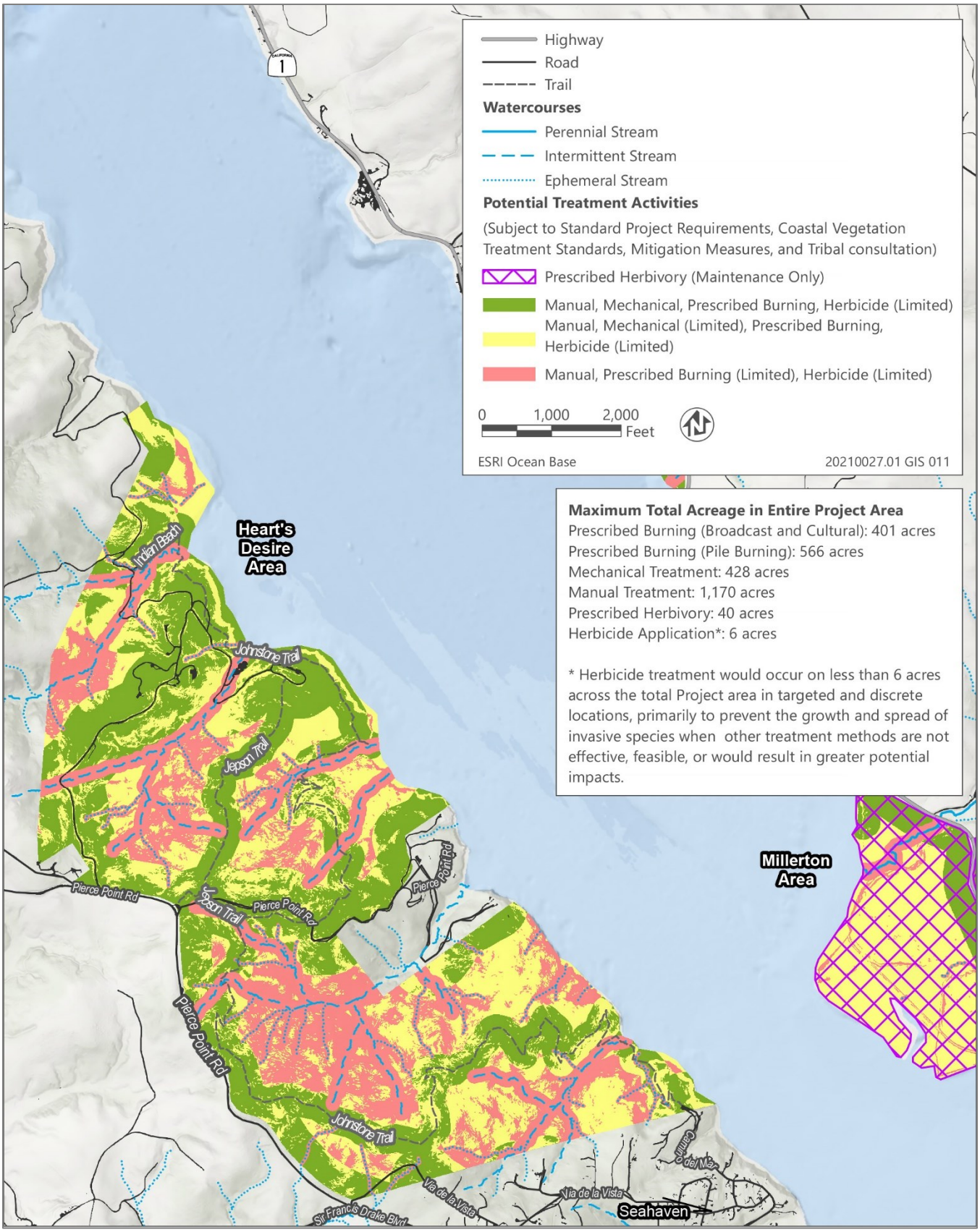
The proposed ecological restoration treatment activities are manual treatments, mechanical treatments, prescribed burning, and herbicide application. In addition, prescribed herbivory would only be used as a maintenance treatment and is discussed further in Section 2.5 below. Biomass would be disposed of through masticating, chipping, piling and burning, lopping and scattering, broadcast burning, air curtain burning, or hauling to an area outside the treatment area. Each of these activities is included in the CalVTP Program EIR and is described in more detail below. Treatments would be implemented with adherence to environmentally protective CalVTP Program EIR SPRs and mitigation measures and the Coastal VTS per the approved PWP. These measures may include surveys, no-disturbance spatial buffers, limited operating periods, additional habitat retention requirements, and engagement with state and federal wildlife agencies (refer to Attachment B). Figures 2-10a, 2-10b, and 2-10c show the potential treatment activities within the Project area based on slope steepness, access, and habitat type; additionally, treatments would be subject to other project requirements (e.g., SPRs, mitigation measures, Coastal VTS, tribal consultation with FIGR) and considerations such as the proximity to neighboring communities.

MANUAL TREATMENTS

Manual treatments would be implemented (in some cases in combination with mechanical treatments) with the use of hand tools and hand-operated power tools including chainsaws, hand saws, brush cutters, and pole-saws. These tools would be used to cut, thin, remove, lop, clear, or prune trees, shrubs and herbaceous vegetation including invasive plants. Manual treatments may be used during burn unit prep to reduce fuels around the burn perimeter and/or in certain areas within the burn unit to help achieve burn plan objectives. In many cases woody debris may be lopped and scattered, broadcast burned, or piled for later pile burning or burning in a biomass burn box. Manual treatments may be preferred in specific areas or as follow-up to mechanical treatment. Manual treatments would generally be required on slopes greater than 35 percent and would be used in or adjacent to identified sensitive areas related to natural, cultural, and tribal cultural resources.

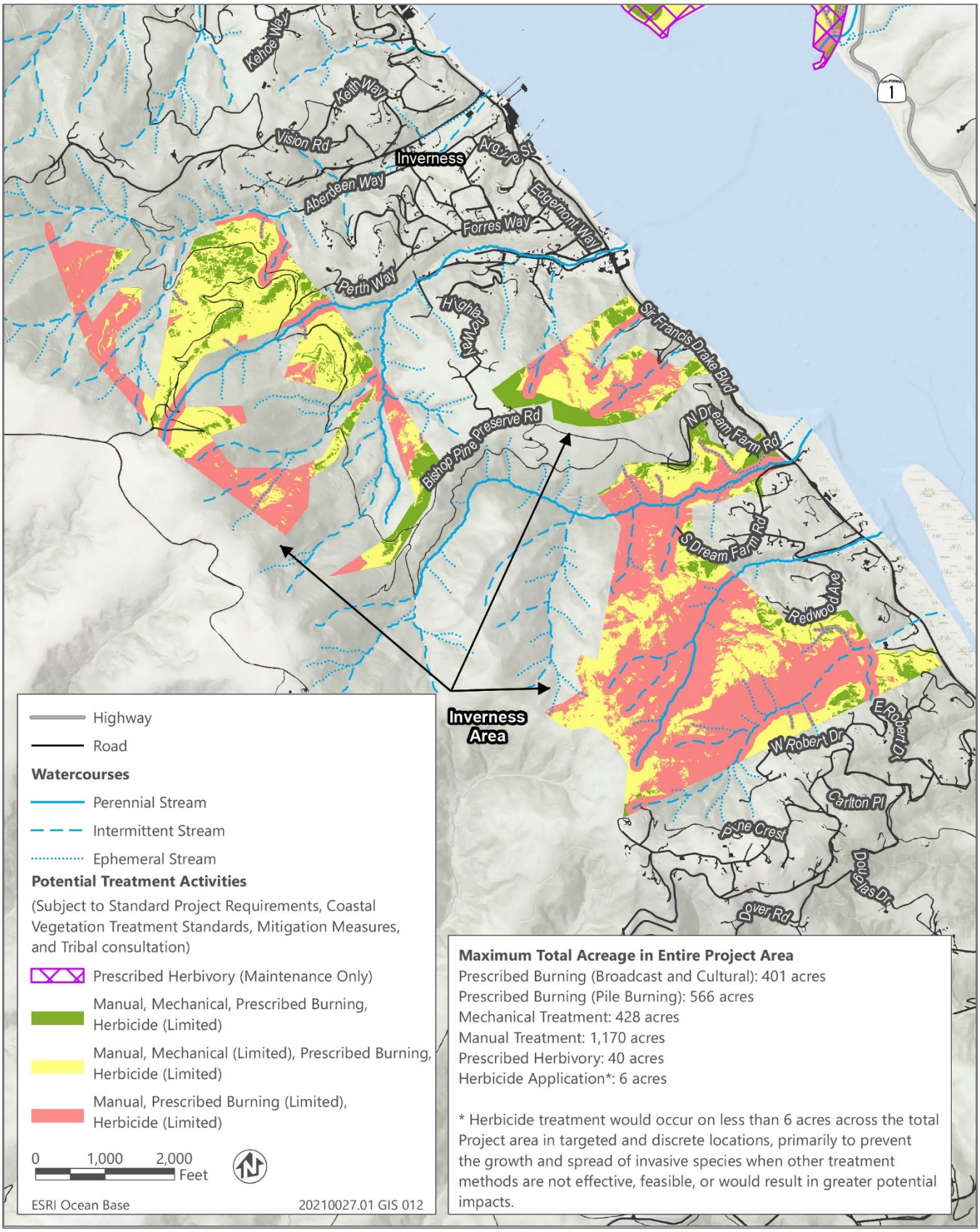
MECHANICAL TREATMENTS

Mechanical treatments use motorized equipment. This would primarily include mastication but may also include "mowing" of shrubs and small trees, and in some cases skidding of felled larger dead trees. Equipment types used typically include a tracked excavator, skidder, chipper, or masticator. Mechanical treatment would be limited to areas with road or trail access points, generally within 500 feet of roads, slopes generally less than 35 percent, and where biological, cultural, tribal, and aesthetic concerns can be avoided. Mechanical treatments may be used during burn unit prep to reduce fuels around the burn perimeter and/or in certain areas within the burn unit to help achieve burn plan objectives. Chipping is a mechanical treatment and would be used in combination with manual treatment as needed and appropriate. Mechanical equipment such as a tracked chipper may traverse areas greater than 35 percent slope to access treatment sites.



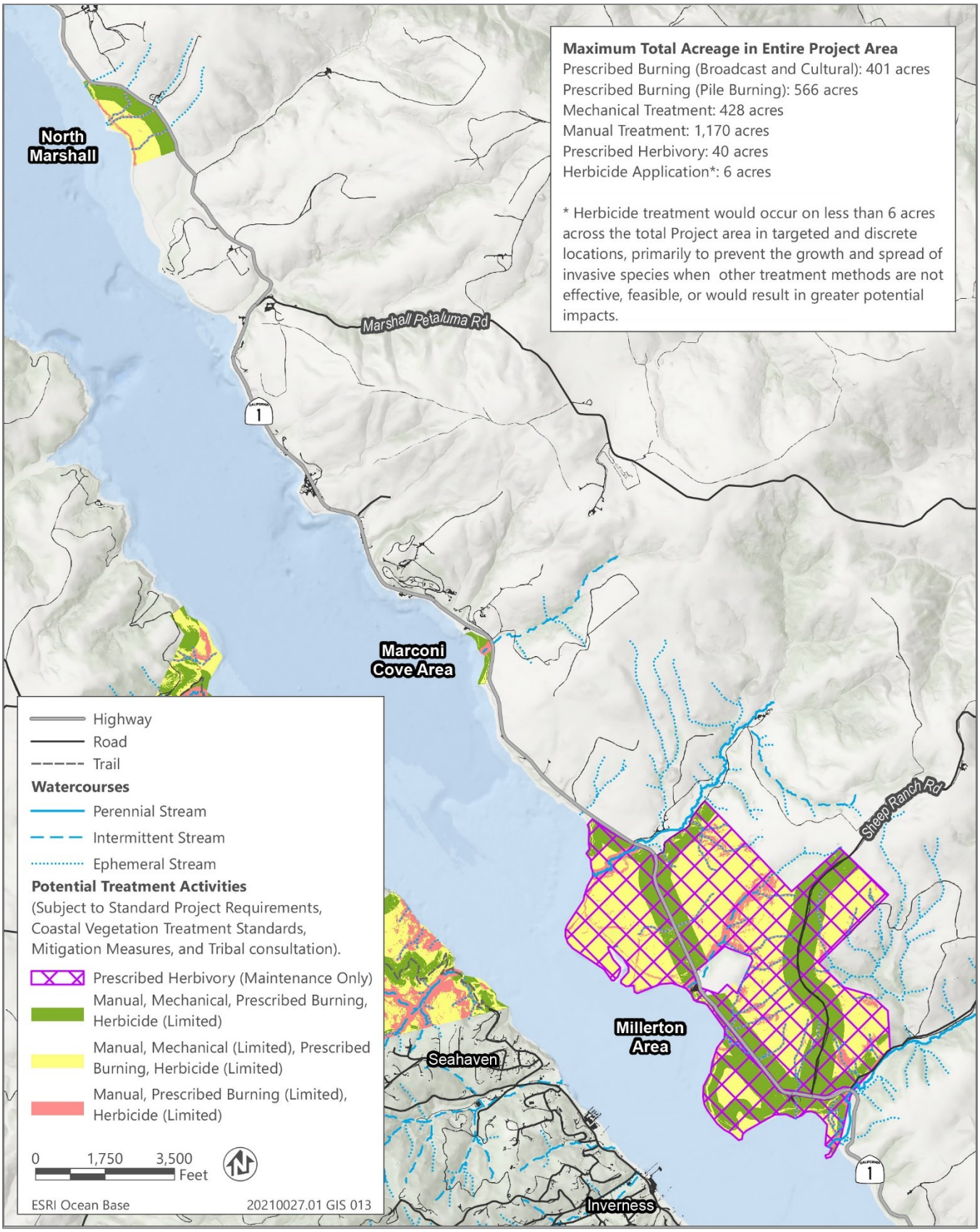
Source: Data received from CSP in 2022; adapted by Ascent in 2024.

Figure 2-10a Feasibility of Treatments in Heart's Desire and Millerton Project Areas



Source: Data received from CSP in 2022; adapted by Ascent in 2024.

Figure 2-10b Feasibility of Treatments in Inverness Project Area



Source: Data received from CSP in 2022; adapted by Ascent in 2024.

Figure 2-10c Feasibility of Treatments in Millerton, Marconi Cove, and North Marshall Project Areas

PRESCRIBED BURNING

Prescribed burning is a method of introducing beneficial fire to the landscape and is the intentional application of fire to vegetation under specific conditions. Prescribed burning includes pile burning, air curtain burning, broadcast burning, and cultural burning. Cultural burns would only occur in consultation, and with the participation of FIGR. Burning of vegetative material would occur to remove biomass following treatment, reduce fuels over larger areas, or restore fire resiliency in fire-adapted plant communities. The Tomales Bay SP General Plan states that CSP shall take action to "rehabilitate the role of fire in the natural ecological processes of Tomales Bay State Park." Specifically, it directs that prescribed burning in the park shall occur "in order to achieve ecosystem, cultural landscape management, and air quality goals" (Goal VEG-10, Tomales Bay SP General Plan & EIR - Vol. 1 pg. 140). Treatment would be conducted under specific conditions related to fuels, weather, and other variables. Generally, prescribed burning treatments would include the following:

- **Pile burning:** Biomass from mechanical and manual treatments would be piled using equipment (e.g., skid steer, tractor, bulldozer, or excavator) or hand crews and burned appropriately. Pile burning would occur in areas with canopy gaps of sufficient size or in areas of little to no live overstory. Piles for burning would not exceed 8 feet in height. Equipment used to prepare and conduct pile burning could include water trucks, fire engines, excavators, ATVs, UTVs, hand tools, leaf blowers, weed trimmers, portable pumps, hoses, portable water tanks, drip torches, propane torches (for igniting piles), and chainsaws.
- **Air curtain burning[1]:** Biomass from manual and mechanical treatments would be burned inside an aboveground air curtain burner. Either a "BurnBoss" or "Fire Box S220" would be used for the Project. The BurnBoss is self-contained and can be towed with a standard heavy-duty pickup truck or moved on metal tracks. During treatments, it would be positioned on level areas previously disturbed or previously burned by prescribed burning that are devoid of vegetation and cultural or tribal cultural resources, and in areas where minor ground leveling would not cause impacts to resources. Potential impacts to recreation would be similar to those with other types of burning but would be more localized. CSP staff would be on-site at all times during the operation of air curtain burners. The BurnBoss can burn approximately 10 to 20 cubic yards of forest wood slash per hour. The Fire Box S220 is also self-contained but is a stationary unit. It would also be placed in a previously disturbed area. The Fire Box S220 can burn approximately 18 to 25 cubic yards of forest wood slash per hour and biomass is placed into the unit using an excavator. Once the burning is complete, wood ash and biochar would be retained on-site and distributed as needed within the treatment area. A small US EPA Tier 4 diesel engine powers both types of air curtain burners. Equipment used to prepare for and conduct air curtain burning could include water trucks, fire engines, excavators, bulldozers, ATVs, UTVs, hand tools, leaf blowers, weed trimmers, portable pumps, hoses, portable water tanks, drip torches, propane torches (for igniting curtain burner), and chainsaws.

  Broadcast Burning: Broadcast burning would be used to burn understory trees and snags, shrubs, thatch, litter, duff, and dead biomass within hardwood forest, coyote brush shrublands, and grasslands, to promote ecosystem health and native flora, improve resilience, and reduce biomass and fuels. Pretreatment of vegetation using mechanical/manual activities or herbicide application may occur, where necessary, in areas proposed for broadcast burning. Limited broadcast burning may be possible in small areas of Bishop pine forest that have had significant pretreatment and only in select locations where there is road access and a significant setback distance from neighboring communities.

  Broadcast burns would be implemented in accordance with a specific prescription that defines the desired maximum flame lengths and fire spread rates based on the fuel types, weather, slopes, aspect, staffing levels and containment lines and strategies set out in a burn plan. A helicopter with a helitorch or a drone may be used when

[1] Air curtain burners have been designed to consume biomass quickly and efficiently with a substantial reduction in smoke compared to pile burning (refer to additional information in Section 4 under 4.3, "Air Quality," and 4.7, "Greenhouse Gas Emissions"). Mitigation Measure GHG-2 in the CalVTP Program EIR requires project proponents to implement feasible methods, including the use of air curtain burners, to reduce the greenhouse gas (GHG) emissions from pile burning.

an area has limited accessibility. Helicopters would be used only during broadcast burns for aerial ignitions or fire management where access is limited.

Typically, each burn would last 1 day to 2 weeks. Broadcast burns in grasslands can be completed in a short period (i.e., as little as 1 day), while broadcast burns in forested areas require monitoring for up to 2 weeks to ensure that the larger fuels are consumed, and post burn mop up is complete. Equipment used to prepare burn units and conduct broadcast burning could include water trucks, fire engines, bulldozers, excavators, drones, helicopters, ATVs, UTVs, hand tools, leaf blowers, weed trimmers, portable pumps, hoses, portable water tanks, drip torches, propane torches (for broadcast burns in grasslands), and chainsaws. All burning will occur in accordance with regulations regarding the use of prescribed burning. This would include the preparation and implementation of a burn plan and a smoke management plan, when applicable, and obtaining any required permits to conduct the burn from fire authorities.

- **Cultural Burning:** Native Americans extensively shaped ecosystems with fire, using it to rejuvenate the land, sustain tribal culture, regulate fuels, recycle nutrients, manage plant and wildlife habitat for resources, provide community protection, control pests, diseases, and pathogens, modify vegetation structure, and engage in ceremony. With colonization, however, this practice was significantly limited. Both the Spanish government and later the state and federal governments prohibited or criminalized cultural burning practices, and forcibly removed Native people from their lands, resulting in ongoing barriers to land access and stewardship. California Native American tribes nevertheless retain their TK related to cultural burning and have continued to refine Native burning practices (Wildfire and Forest Resilience Task Force 2022).

  Cultural Burning is the intentional application of fire to land by California Native American tribes, tribal organizations, or cultural fire practitioners to achieve cultural goals or objectives, including for subsistence, ceremonial activities, biodiversity, or other benefits. Cultural burning can differ from prescribed fire in terms of size, seasonality, timing, prepping/planning, and post-fire treatment. Cultural burns may be easier to achieve given their small scale and a recently developed process for fire agencies to work with tribes. Partnering with the FIGR to reintroduce the practice of cultural burns onto the landscape provides an opportunity to restore an important cultural practice while also improving forest health and decreasing the risk of catastrophic wildfires. It also meets goals set by California's Strategic Plan for Expanding the Use of Beneficial Fire by supporting the expansion of cultural burning and better integrating tribal organizations and cultural fire practitioners into public agency prescribed fire projects and programs (Wildfire and Forest Resilience Task Force 2022).

  In this PSA/Addendum, cultural burning is considered a type of broadcast burning and would be implemented in accordance with regulations, SPRs, and mitigation measures regarding the use of prescribed burning. This would include the preparation and implementation of a burn plan and a smoke management plan, when applicable, and obtaining any required permits to conduct the burn from fire authorities.

HERBICIDE APPLICATION

Herbicide application would be used as part of an integrated pest management approach to maintain native species composition and to prevent the growth and spread of invasive species within the treatment areas when other treatment methods are not effective, feasible, or would result in greater potential impacts. Herbicide treatment would occur on less than 6 acres across the total treatment area in targeted and discrete locations. Herbicide treatments would be conducted using targeted ground-based application methods including cut stem, basal bark, and foliar spray using manual application equipment such as backpack applicators or hypo-hatchet tree injection. Herbicides would be selectively used during initial and maintenance treatments and the minimum amount of herbicide necessary for effective treatment would be used to treat target vegetation. Examples of invasive species that occur in the park and are likely to be treated include jubata grass (*Cortaderia jubata*), cape ivy (*Delairea odorata*), eucalyptus, French broom, and acacia. Additional invasive species would be treated as necessary to prevent their spread and protect native habitat. Consistent with CSP standards all herbicide applications will be done in compliance with all applicable laws and regulations. The following herbicides, which are consistent with those considered for use in the CalVTP, may be used: Clopyralid

(monoethanolamine salt); Glyphosate (isopropylamine salt, potassium salt, dimethylamine salt and diammonium salt); Imazapyr (isopropylamine salt); and Triclopyr (butoxyethyl ester and triethylamine salt).

BIOMASS DISPOSAL

Biomass created during the proposed ecological restoration treatments described above would be disposed of primarily by the following means:

- lopping and scattering within the treatment boundaries, and the biomass would be processed to a height of no more than 12 inches to promote decomposition;
- pile burning or burning with an air curtain burner, which may be used to dispose of cut or chipped material;
- broadcast or cultural burning;
- chipping, and chipped biomass would be spread over treatment areas or hauled off-site and would not exceed 4 inches in depth;
- masticating (mulching) vegetative debris and placing it on the ground concurrently with vegetation removal, and the biomass remaining after mastication would be no more than 6 inches deep; or
- transported off-site for processing.

Invasive plant and noxious weed biomass would be treated on-site or would be disposed of off-site at an appropriate waste collection facility to prevent reestablishment or spread of invasive plants and noxious weeds. Diseased material could be retained on-site in the same treatment area and would be burned, masticated, lopped and scattered, or chipped and spread. If diseased material is hauled off-site, it would be disposed of at an appropriate disposal location.

2.5 TREATMENT MAINTENANCE

Maintenance treatments would be based upon real-time monitoring of site conditions. Due to the excessive and dense shrubs and hardwoods (sprouting species), maintenance treatment is anticipated to be required approximately every 5 years but may be required as soon as 1-2 years after initial treatment. Monitoring of treatment areas would occur annually at a minimum. Treatment areas would be monitored to ensure early detection and rapid removal of invasive plant species and to monitor vegetation regrowth. Maintenance methods would involve the same treatment types and treatment activities used in the original treatments (refer to Section 2.4, "Proposed Initial Treatments") and may also include limited use of prescribed herbivory described below.

Maintenance treatments would generally be at a smaller scale and lower intensity than initial treatments to maintain desired species composition and density. For example, in areas with high tanoak mortality from sudden oak death, the tanoaks sprout prolifically from their base but rarely reach maturity before succumbing to sudden oak death again. This cycle of prolific sprouting then dying results in rapid buildup of ladder fuels and standing dead biomass in the absence of maintenance treatments to mimic frequent, low intensity fires. Shrub species such as huckleberry also tend to resprout vigorously following disturbance and require maintenance treatment to keep them at desired densities. The goal of maintenance treatment would be to continue to facilitate regeneration of Bishop pine and hardwood trees, prevent reestablishment of coyote brush in grasslands, control invasive plant species, and reduce potential risk from significant wildfire by maintaining vegetation density at the level expected had fire been active in this landscape at historic frequencies and intensities.

Prior to implementing a maintenance treatment, CSP will verify that the expected site conditions as described in the PSA/Addendum are present in the treatment area. As time passes, the continued relevance of the PSA/Addendum will be considered by CSP given potentially changed conditions or circumstances. Where CSP determines the PSA/Addendum is no longer sufficiently relevant or the PWP has expired, they will determine whether a new PSA/Addendum or other environmental analysis is warranted. In addition to verifying that the PSA/Addendum continues to provide relevant CEQA coverage for treatment maintenance, CSP will update and retain in the files the PSA/Addendum at the time a maintenance treatment is needed if changed conditions or circumstances occur and

warrant an update. For example, CSP may conduct a reconnaissance survey to verify conditions are substantially similar to those anticipated in the PSA. Updated information will be documented.

Prescribed Herbivory. Prescribed herbivory treatments use domestic livestock to reduce target plant populations to accomplish specific vegetation goals. Prior to the use of prescribed herbivory CSP would prepare a Grazing Management Plan which would include a description of current conditions, the potential impacts of grazing on resources of concern, grazing management goals, objectives and performance standards, monitoring, reporting, and a summary of requirements. Prescribed herbivory maintenance treatments would include the use of goats or sheep to graze or browse target vegetation and would be limited to a total of up to 40 acres within coyote brush shrubland and grassland habitats on the east side of Tomales Bay (Figure 2-10c). The total temporary fencing deployed at any one time for prescribed herbivory would not exceed 1 mile (i.e., the perimeter of a 40-acre area). Herds would be managed with shepherd(s) or UTVs. Herding dogs would not be used for prescribed herbivory treatments. Water for livestock would be supplied by existing stock ponds or with portable water troughs that can be filled from the CSP water system, a municipal source, or from water brought in via truck. A water truck could fill the portable trough from an existing road, or water can be transferred to a smaller transport vehicle (such as a UTV or mechanized wheelbarrow) that can use existing trails and limited off trail areas to access and fill the portable trough. Prescribed herbivory could occur at any time but no noise-generating equipment use would occur during the nighttime. Prescribed herbivory would be consistent with the CSP policy on livestock grazing as detailed below.

The CSP Department Operation Manual is a policy document and the policies contained in the manual guide the management of the CSP system. Prescribed herbivory would be used for this Project as a maintenance treatment activity specifically for the purpose of ecological restoration and not solely for the purpose of fuels reduction.

> **Department Operations Manual 0317.2.4.1 Livestock Grazing Policy**
> It is the policy of the Department of Parks and Recreation that livestock grazing is an inappropriate use of parkland resources except under certain circumstances where a core park purpose is served. Due to the potential for inconsistent application of the Department's Livestock Grazing Policy and uncoordinated scientific monitoring, the Chief of the Natural Resources Division and appropriate Field Division Chief will approve any grazing contracts, leases or agreements deemed beneficial to the State Park System prior to execution.
>
> Livestock grazing may be permitted under the following circumstances:
>
> a. When directly contributing to historic interpretation approved in a unit's General Plan.
>
> b. When necessary for a specific natural resource restoration purpose, which normally does not include fuels reduction or an alternative to extirpated ungulate grazing; or
>
> c. When it is a necessary component to an acquisition agreement, including scaled-down grazing to improve natural resources.

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3 ENVIRONMENTAL CHECKLIST

ECOLOGICAL RESTORATION TREATMENT PROJECT INFORMATION

1.	**Project Title:**	Tomales Bay State Park Forest Health and Wildfire Resilience Project
2.	**CalVTP I.D. Number:**	2023-07
3.	**Project Proponent's Name and Address:**	California State Parks – Bay Area District 845 Casa Grande Road Petaluma, CA 94954-5804
4.	**Contact Person Information and Phone Number:**	Bree Hardcastle 707.337.0269 Bree.Hardcastle@parks.ca.gov
5.	**Project Location:**	Marin County, N 38.114976, W -122.871114. Tomales Bay State Park
6.	**Total Area to Be Treated (acres)**	1,590 acres

7. Description of Project:

See Chapter 2, "Project Description," above, for a detailed description of the proposed Project.

See Section 2.2, "Problem Statement," above, for the problem statement.

See Section 2.3, "Goal Statement," above, for the goal statement.

See Section 2.4.3, "Consistency with Coastal Vegetation Treatment Standards," above, for a description of Coastal Act compliance for the proposed Project.

a. Initial Treatment
Initial treatments would be ecological restoration and the proposed treatment activities are manual treatments, mechanical treatments, prescribed burning, and herbicide application. See Section 2.4, "Proposed Initial Treatments," for additional details.

Treatment Types

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast Burning, Cultural Burning), 401 acres

☒ Prescribed Burning (Pile Burning), 566 acres

☒ Mechanical Treatment, 428 acres

☒ Manual Treatment, 1,170 acres

☒ Herbicide Application, 6 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

b. Treatment Maintenance

Maintenance treatments would involve the same treatment type and activities used in the initial treatments, in addition to prescribed herbivory. See Section 2.5, "Treatment Maintenance," above for additional details.

Treatment Types

☒ Ecological Restoration

Treatment Activities

☒ Prescribed Burning (Broadcast Burning, Cultural Burning), 401 acres

☒ Prescribed Burning (Pile Burning), 566 acres

☒ Mechanical Treatment, 428 acres

☒ Manual Treatment, 1,170 acres

☒ Prescribed Herbivory, 40 acres

☒ Herbicide Application, 6 acres

Fuel Type

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Use of the PSA/Addendum for Treatment Maintenance

See Section 2.5, "Treatment Maintenance," above.

8. Regional Setting and Surrounding Land Uses:

The Project is in Marin County within the ancestral lands of the Federated Indians of Graton Rancheria. Tomales Bay SP is a 2,433-acre park with an elevational range of sea level to 1,240 feet. Ecological restoration treatments are proposed on up to 1,590 acres within the 2,433-acre Project area. The park is situated along the west and east sides of Tomales Bay. Point Reyes National Seashore is located to the west, the communities of Marshall and Marconi are located to the northeast, Point Reyes Station is located to the southeast, and Inverness is located south and east.

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

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

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

Coastal Act Compliance

☐ The proposed project is NOT within the Coastal Zone

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

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

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

Pursuant to SPR CUL-2, Native American contacts listed on the Native American Heritage Commission list in Marin County were contacted on May 25, 2023, and included Greg Sarris, Chairperson, Federated Indians of Graton Rancheria; Gene Buvelot, Sacred Sites Committee Member, Federated Indians of Graton Rancheria; Buffy McQuillen, Tribal Heritage Preservation Officer, Federated Indians of Graton Rancheria; and Donald Duncan, Chairperson, Guidiville Indian Rancheria. Prior to sending notification letters, CSP contacted the Federated Indians of Graton Rancheria in June 2022 to initiate consultation on the design of the project. CSP and the Federated Indians of Graton Rancheria have been working cooperatively to ensure the project protects tribal cultural resources and integrates FIGR Traditional Knowledge. No responses were received from any other Native American tribes as of July 1, 2024.

DETERMINATION

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

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

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

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

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

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

Signature

July 8, 2024
Date

Maria Mowrey
Printed Name

Bay Area District Superintendent
Title

California State Parks
Agency

4 PROJECT-SPECIFIC ANALYSIS/ADDENDUM

4.1 AESTHETICS AND VISUAL RESOURCES

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

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

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

Discussion

IMPACT AES-1

Initial and maintenance treatments would consist of prescribed burning, mechanical treatment, manual treatment, targeted ground application of herbicides, and prescribed herbivory. The potential for these types of treatment activities to result in short-term degradation of the visual character of a treatment area was examined in the Program EIR. The nearest eligible state scenic highway to the Project area is State Route (SR) 1, which travels through Millerton, located in the eastern portion of the Project area (Caltrans 2023) (refer to Figure 2-4). Publicly accessible viewpoints within and near the Project area from which treatments would be visible are located along public trails (e.g., Tomales Bay Trailhead) and recreation areas within Tomales Bay SP, SR 1, and other public roadways. Although portions of the Project area are visible from public viewpoints and an eligible state scenic highway, the Project area is densely vegetated with mature trees and varied topography, which would substantially reduce the visibility of treatments from public viewpoints. Treatments would generally remove shrubs and trees smaller than 10 inches DBH, with only select removal of larger trees, leaving overstory vegetation. Equipment staging would occur in developed areas such as trailheads to the extent possible to reduce degradation of the visual character of the park. Although in the short-term after treatment, the absence of treated vegetation could be noticeable, mature vegetation would remain to provide partial screening of treatment areas and existing views from trails to Tomales Bay would be retained, or potentially opened more by vegetation removal for improved scenic access to water views. Equipment, crews and smoke from prescribed burning could be temporarily visible from public viewpoints and an eligible state scenic highway (SR 1). The potential for the Project to result in short-term substantial degradation of the visual character of the Project area is within the scope of the Program EIR because the proposed treatment activities are consistent with those analyzed in the Program EIR.

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing scenic resources are essentially the same within and outside the treatable landscape; therefore, the short-term aesthetic impact is also the same, as described above.

As described above under Section 1.1.3, "Purpose of This PSA/Addendum," CSP proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (i.e., CSP Burn Plan Template). Burn plans prepared by CSP would meet the same standards as required under CAL FIRE burn plans. For these reasons, proposed revisions to SPR AQ-3 would not result in increased smoke emissions or smoke-related impacts. Therefore, revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on aesthetics and visual resources than what was covered in the Program EIR.

SPRs applicable to this impact are AD-3, AD-4, AES-2, AQ-2, AQ-3, and REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AES-2

The potential for initial treatment and maintenance in ecological restoration to result in long-term degradation of the visual character of an area was examined in the Program EIR. Public viewpoints of the Project area include publicly accessible trails and recreation areas, SR 1, and other public roadways. Treatments would generally remove shrubs and trees smaller than 10 inches DBH, with only select removal of larger trees, leaving overstory vegetation. Therefore, mature vegetation would remain to provide partial screening of treatment areas and existing views from trails to Tomales Bay would be retained, or potentially opened more by vegetation removal for improved scenic access to water views. The long-term visual character of the treatment areas after implementation of the proposed ecological restoration treatment would remain consistent with the current natural, vegetated landscape and would not constitute a substantial adverse change or degrade the current visual character of the landscape. The potential for the Project to result in long-term substantial degradation of the visual character of the Project area is within the scope of the Program EIR because the proposed treatment types are consistent with those analyzed in the Program

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

IMPACT AES-3

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

NEW AESTHETIC AND VISUAL RESOURCE IMPACTS

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

4.2 AGRICULTURE AND FORESTRY RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	**Identify Impact Significance in the Program EIR**	**Identify Location of Impact Analysis in the Program EIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project**	**List MMs Applicable to the Treatment Project**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?**	**Is This Impact within the Scope of the Program EIR?**
Would the project:								
Impact AG-1: Directly Result in the Loss of Forest Land or Conversion of Forest Land to a Non-Forest Use or Involve Other Changes in the Existing Environment Which, Due to Their Location or Nature, Could Result in Conversion of Forest Land to Non-Forest Use	LTS	Impact AG-1, pp. 3.3-7 – 3.3-8	Yes	AD-3	NA	LTS	No	Yes

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

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

Discussion

IMPACT AG-1

Treatment activities implemented within the Project area would consist of manual treatment, mechanical treatment, prescribed burning, and herbicide treatments to conduct ecological restoration, and prescribed herbivory in limited areas for maintenance treatments. Project treatments would involve removing live and dead shrubs and trees generally 10 inches DBH and smaller. Encroaching Douglas fir as well as standing dead trees would be removed from Bishop pine forests and encroaching conifers and standing dead trees would be removed from hardwood forests. Larger trees (conifers and hardwoods) may be cut to create openings in the canopy for horizontal and vertical fuel separation, where pile burning may occur, or to provide potential seed sources or canopy openings for mature Bishop pinecones that are usually located in the upper canopy on the mature trees.

The potential for these treatment types and treatment activities to result in the loss of forest land or conversion of forest land to non-forest use was examined in the Program EIR. The treatment activities described above would occur in forested lands. Consistent with the Program EIR, the vegetation remaining after treatments would meet the definition of forest land as defined in PRC Section 12220(g), which defines "forest land" as land that can support 10-percent native tree cover of any species under natural conditions. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the composition of forested land as defined in PRC Section 12220(g) is essentially the same within and outside the treatable landscape; therefore, the impact to forest land is also the same, as described above. SPR AD-3 is applicable to this impact. Therefore, the potential for the

Project to result in the loss or conversion of forest land is within the scope of the Program EIR. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AGRICULTURE AND FORESTRY RESOURCE IMPACTS

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

4.3 AIR QUALITY

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

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

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

Discussion

Marin County is in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Pursuant to SPR AQ-2, the implementing entity would prepare a smoke management plan and submit it to BAAQMD prior to implementing any prescribed burning treatment. In addition, the implementing entity would prepare a burn plan for broadcast burns as required by SPR AQ-3, which would include fire behavior modeling. SPR AQ-6 requires the implementation of an Incident Action Plan (IAP), which identifies burn dates, burn hours, weather limitations, specific burn prescription, communication plan, medical plan, and traffic plan (if roadways could be affected). Per the revisions to SPR AQ-6 described in Section 1.1.3, an IAP and/or prescribed burn plan would be prepared by CSP for all proposed prescribed burning treatments. The IAP and/or prescribed burn plan would identify the contact personnel with BAAQMD to coordinate posting notifications and weather monitoring during burning.

IMPACT AQ-1

Use of vehicles, mechanical equipment, prescribed (broadcast or cultural) burning, prescribed (pile) burning, and the use of air curtain burning to process biomass during initial and maintenance treatments would result in emissions of criteria pollutants that could exceed California ambient air quality standard (CAAQS) or national ambient air quality standard (NAAQS) thresholds. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the Program EIR.

Emissions of criteria air pollutants related to the proposed treatment are within the scope of the Program EIR because the associated equipment and duration of use are consistent with those analyzed in the Program EIR. The emission reduction techniques proposed in Mitigation Measure AQ-1 would be implemented to the extent feasible. The components of Mitigation Measure AQ-1 that have been determined by CSP to be feasible and would be implemented to reduce emissions include the use of gasoline-powered equipment, if available during Project implementation, and encouraging carpooling and/or use public transportation to the Project area. Equipment meeting Tier 4 emission standards, Best Available Control Technology for emissions reductions of NO_X and PM on equipment, and the use of renewable fuel would be implemented to the extent feasible. Based on the implementation of applicable SPRs and Mitigation Measure AQ-1, there would be a reduction in emissions and exposure to potential health effects. However, the amount of reduction resulting from the SPRs and mitigation cannot be determined, therefore, the potential for impact remains potentially significant and unavoidable, as determined in the Program EIR (CalVTP Final Program EIR Volume II 3.4.3, page 26-33).

When feasible, the use of an air curtain burner to process biomass is proposed pursuant to Mitigation Measure GHG-2. Evaluation of criteria air pollutant emissions from these biomass processing technologies conducted by Ascent (2022) indicates that smoke and criteria air pollutant emissions can be substantially reduced, compared to open pile burning. Use of an air curtain burner would substantially reduce reactive organic gas (ROG) and particulate matter (PM) emissions by approximately 96 percent when compared to pile burning. For nitrous oxide (NO_X), air curtain burners are estimated to reduce NO_X emissions by at least 73 percent (Ascent 2022). Based on available information about emissions from specialized biomass processing technologies, this technology offers the opportunity to substantially reduce local exposure to PM from smoke, a potentially beneficial difference compared to pile burning. Despite the substantial reduction in criteria air pollutant emissions afforded by use of air curtain burners, Impact AQ-1 must still be recognized as potentially significant and unavoidable because of uncertainties in the extent of their use.

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the air quality conditions present and air basin in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above.

CSP proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (i.e., CSP Burn Plan Template), which would constitute a change to the project analyzed in the Program EIR. Burn plans prepared by CSP would include smoke management components that are consistent with BAAQMD approved smoke management plans and would meet the same standards as required for CAL FIRE burn

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

CSP also proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that prescribed burns planned and managed by non-CAL FIRE/MCFD crews would follow all safety procedures that would minimize smoke and criteria air pollutants required of CAL FIRE/MCFD crews, including the implementation of an approved IAP and/or prescribed burn plan. This would constitute a change to the project analyzed in the Program EIR. The proposed revisions to SPR AQ-6 would not result in greater generation of emissions of criteria air pollutants and precursors, and revisions to SPR AQ-6, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on air quality than what was covered in the Program EIR because SPR AQ-6 would continue to require implementation of safety procedures that would minimize smoke and criteria air pollutants from prescribed burn activities.

The SPRs applicable to this treatment Project are AD-4, AQ-1 through AQ-6. For these reasons, this impact would remain potentially significant and unavoidable. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-2

Use of mechanical equipment during initial and maintenance treatments could expose people, such as hikers and recreationists using publicly accessible beaches and trails within Tomales Bay SP to diesel particulate matter emissions. However, treatment activities would not take place near the same people for an extended period such that prolonged exposure would occur. The potential to expose people to diesel particulate matter emissions was examined in the Program EIR. Diesel particulate matter emissions from the proposed treatments are within the scope of the Program EIR because the exposure potential is the same as analyzed in the Program EIR, and the types and amount of equipment that would be used, as well as the duration of use, during proposed treatments are consistent with those analyzed in the Program EIR.

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

IMPACT AQ-3

This impact does not apply to the Project because no naturally occurring asbestos is mapped in the Project area (DOC 2000; USGS 2011).

IMPACT AQ-4

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

ROG emissions by 96 percent when compared to pile burning of equivalent areas. Therefore, the exposure of persons to TACs and related health risks would likely be substantially lower with the use of air curtain burning as compared with pile burning. The duration and parameters of the prescribed burns are within the scope of the activities addressed in the Program EIR, and impacts would be reduced with the use of air curtain burning. Within the BAAQMD, air quality conditions are consistent with those analyzed in the Program EIR for Marin County. Therefore, the potential for exposure to toxic air contaminants is also within the scope the Program EIR.

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the air quality conditions present and air basins in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above.

CSP also proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that prescribed burns planned and managed by non-CAL FIRE/MCFD crews would follow all safety procedures required of CAL FIRE/MCFD crews, including the implementation of an approved IAP and/or prescribed burn plan. This would constitute a change to the project analyzed in the Program EIR. The proposed revisions to SPR AQ-6 would not result in greater exposure of people to toxic air contaminants because SPR AQ-6 would continue to require implementation of safety procedures that would minimize exposure of the public to smoke from prescribed burn activities. Thus, the proposed revisions to SPR AQ-6 would not result in a substantially more severe significant effect on air quality than what was covered in the Program EIR.

SPRs applicable to these treatment activities are AD-4, AQ-1, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke emissions, as well as exposure to smoke, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT AQ-5

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

IMPACT AQ-6

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

The duration and parameters of the prescribed burning treatments are within the scope of the activities addressed in the Program EIR, and smoke would be reduced with the use of proposed air curtain burning. Therefore, the resultant potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the air quality conditions present and sensitive receptors in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above.

CSP also proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that prescribed burns planned and managed by non-CAL FIRE/MCFD crews would follow all safety procedures required of CAL FIRE/MCFD crews, including the implementation of an approved IAP and/or prescribed burn plan. This would constitute a change to the project analyzed in the Program EIR. The proposed revisions to SPR AQ-6 would not result in greater exposure of people to objectionable odors from smoke because SPR AQ-6 would continue to require implementation of safety procedures that would minimize exposure of the public to smoke from prescribed burn activities. Thus, the proposed revisions to SPR AQ-6 would not result in greater generation of objectionable odors from smoke, and revisions to SPR AQ-6, specifically for prescribed burning treatment activities, would not result in a substantially more severe significant effect on air quality than what was covered in the Program EIR.

SPRs that are applicable to this treatment Project are AD-4, AQ-1, AQ-2, and AQ-6. All feasible measures to prevent and minimize smoke odors, as well as exposure to smoke odors, are included in SPRs. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW AIR QUALITY IMPACTS

The proposed treatments are consistent with the treatment types and activities covered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP Program EIR (refer to Section 3.4.1, "Regulatory Setting," and Section 3.4.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental and regulatory conditions pertinent to air quality that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape. Revisions to SPRs AQ-3 and AQ-6 as described in Section 1.1.3, "Purpose of This PSA/Addendum," and shown in underline and strikethrough in Attachment A, would constitute a change to the project analyzed in the Program EIR. Revisions to SPR AQ-3 would allow for the use of non-CAL FIRE burn plan templates (i.e., CSP Burn Plan Template), while revisions to AQ-6 would continue to require implementation of safety procedures that would minimize exposure of the public to smoke and, if deemed necessary by a burn boss or qualified technician, would require an IAP and associated maps to be prepared. The CSP Burn Plan Template requires the same standards for air quality as the CAL FIRE template and adherence to an approved SMP from BAAQMD; therefore, revisions to SPR AQ-6 would not result in a new impact that was not analyzed in the Program EIR. Therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment Project are consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPRs AQ-3 and AQ-6 would not give rise to any new significant impact. Therefore, no new impact related to air quality would occur.

4.4 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

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

Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Impact CUL-4: Disturb Human Remains	LTS	Impact CUL-4, p. 3.5-18	Yes	AD-2 AD-3 TCR-1 TCR-2 TCR-3 TCR-4	NA	LTS	No	Yes

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

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

Discussion

Consistent with SPR CUL-1, a records search of the Project area was obtained from CSP's database. Only approximately 40 percent of the proposed project area has been subject to archaeological survey, nearly all conducted prior to 1990 and focused on accessible coastal locations and known archaeological resources. Within the surveyed portions of the park, a total of 20 previously recorded archaeological sites were identified within the Project area. Of the 20 known archaeological sites, 14 are precontact archaeological sites, 5 are multicomponent, and one is historic era. None of the previously recorded sites have been evaluated for California Register of Historical Resources (CRHR) eligibility.

Consistent with SPR CUL-2, an updated Native American contact list was obtained from the Native American Heritage Commission (NAHC) on February 7, 2023. A concurrent search of NAHC's sacred lands database returned positive results and that FIGR should be contacted for information. On May 25, 2023, letters inviting the tribes to consult were sent to four tribal representatives. Greg Sarris, Chairperson, Federated Indians of Graton Rancheria; Gene Buvelot, Sacred Sites Committee Member, Federated Indians of Graton Rancheria; Buffy McQuillen, Tribal Heritage Preservation Officer, Federated Indians of Graton Rancheria; and Donald Duncan, Chairperson, Guidiville Indian Rancheria. Prior to sending notification letters, CSP contacted FIGR in June 2022 to initiate consultation on the design of the project. CSP and FIGR have been working cooperatively to ensure the project protects tribal cultural resources (TCRs) and integrates FIGR Traditional Knowledge (TK). CSP and FIGR have developed TCR SPRs that are intended to enhance, with specific details, the general requirements in the Archaeological, Historical, and Tribal Cultural Resources SPRs in the CalVTP Program EIR. These TCR SPRs are referenced here and provided in Attachment A. Consultation with FIGR is ongoing and will continue throughout the life of the project. No responses were received from any other Native American tribes as of July 1, 2024.

IMPACT CUL-1

All treatment and maintenance activities have potential to result in disturbance to, damage to, or destruction of built environment resources, including those that have not yet been evaluated for NRHP/CRHR eligibility. The records search through the CSP database did not reveal any recorded built-environment features; nevertheless, unrecorded

structures (i.e., buildings, bridges, roadways) more than 50 years old are present in the treatment area. These structures would be identified and avoided pursuant to SPR CUL-7. The potential for these treatment activities to result in disturbance, damage, or destruction of built-environment structures that have not yet been evaluated for historical significance was examined in the Program EIR. This impact is within the scope of the Program EIR because treatment activities and the intensity of ground disturbance of the treatment Project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the potential to encounter built-environment structures that have not yet been evaluated for historical significance in areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact to historical resources is also the same, as described above.

SPRs applicable to this impact are AD-2, AD-3, CUL-1, CUL-2, CUL-3, CUL-7, CUL-8, TCR-1 through TCR-4. Pursuant to SPR CUL-4, surveys for built historical resources would be conducted prior to treatments. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-2

All treatment and maintenance activities could disturb the surface of the ground as vegetation is removed; this may result in damage to known or previously unknown archaeological resources. The CSP records search revealed 20 archaeological sites; however, none of these have been evaluated for eligibility for listing in the CRHR. These sites will be considered historical resources under CEQA unless specifically evaluated and determined ineligible. SPRs applicable to this impact are AD-2, AD-3, CUL-1 through CUL-4, CUL-5, CUL-8 and TCR-1 through TCR-6. Identified resources will be avoided according to the provisions of SPR CUL-5 and TCR-3.

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

This impact is within the scope of the Program EIR because treatment activities and intensity of ground disturbance of the treatment Project are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the potential for discovery of archaeological resources is essentially the same within and outside the treatable landscape; therefore, the potential impact to unique archaeological resources or subsurface historical resources is also the same, as described above. SPRs applicable to this impact include AD-2, AD-3, CUL-1 through CUL-5, CUL-8, and TCR-1 through TCR-6. Mitigation Measure CUL-2 also applies to this treatment to protect any inadvertent discovery. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-3

Native American contacts in Marin County obtained from the Native American Heritage Commission (NAHC) were contacted on May 25, 2023, and included Greg Sarris, Chairperson, Federated Indians of Graton Rancheria; Gene Buvelot, Sacred Sites Committee Member, Federated Indians of Graton Rancheria; Buffy McQuillen, Tribal Heritage Preservation Officer, Federated Indians of Graton Rancheria; and Donald Duncan, Chairperson, Guidiville Indian

Rancheria. Prior to sending notification letters, CSP contacted FIGR in June 2022 to initiate consultation on the design of the project. CSP and FIGR have been working cooperatively to draft the project description, incorporating FIGR TK and priorities. No responses were received from any other Native American tribes as of July 1, 2024.

FIGR is the only federally recognized Indian Tribe that is culturally affiliated with what is today Marin County. Through government-to-government consultation, FIGR will be a decision maker in all projects that concern the TCRs, lands, and waters of Tomales Bay SP. California Assembly Bill 52 establishes California Native American Tribes as the subject matter experts on what constitutes TCRs, and FIGR possesses specific knowledge about TCRs, such as the forests of this region. Both cultural and natural resources constitute TCRs. Ecological restoration treatment would consist of prescribed burning, manual and mechanical treatment, and the selective, targeted use of herbicides and maintenance treatments could include prescribed herbivory that could inadvertently damage or destroy TCRs if they are present in treatment areas. The potential for the proposed treatment activities to cause a substantial adverse change in the significance of a TCR during implementation of treatments was examined in the Program EIR. This impact is within the scope of the Program EIR because the treatment types and intensity of ground disturbance and other treatment activities proposed for this treatment Project are consistent with those analyzed in the Program EIR. As explained in the Program EIR, while TCRs may be identified within the treatable landscape during development of treatments, implementation of SPRs would avoid any substantial adverse change to any TCR. Cultural resource SPRs were refined in coordination with FIGR to address resources specific to the proposed project (Attachment A). In recognition of FIGR's TK concerning the lands, waters, environments, beings, and relationships that are essential to land stewardship and cultural and natural resource management in Tomales Bay SP, CSP and FIGR will consult and collaborate in prioritizing treatment areas and the treatment activities used in each area.

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the tribal cultural affiliations present in the areas outside the treatable landscape are the same as those within the treatable landscape; therefore, the potential impact on TCRs is also the same, as described above. SPRs applicable to this impact include AD-2, AD-3, CUL-1 through CUL-8, and TCR-1 through TCR-6. Mitigation Measure CUL-2 also applies to this treatment to protect inadvertent discoveries. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT CUL-4

Ecological restoration treatment and maintenance activities would include treatments using manual and heavy equipment; these treatments could uncover human remains if present in the treatment area. While known burial locations can be avoided, an inadvertent discovery could occur. The potential for treatment activities to uncover human remains was examined in the Program EIR. This impact is within the scope of the Program EIR because the intensity of ground disturbance under the proposed Project is consistent with what was analyzed in the Program EIR. In addition, consistent with the Program EIR, the proposed Project would comply with California Health and Safety Code Sections 7050.5 and Public Resources Code Section 5097 in the event of a discovery.

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the potential for uncovering human remains during implementation of the treatment Project is essentially the same within and outside the treatable landscape; therefore, the impact related to disturbance of human remains is also the same, as described above. SPRs AD-2, AD-3, and TCR-1 through TCR-4 are applicable to this impact in addition to compliance with procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCE IMPACTS

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

4.5 BIOLOGICAL RESOURCES

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	**Identify Impact Significance in the Program EIR**	**Identify Location of Impact Analysis in the Program EIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project**	**List MMs Applicable to the Treatment Project**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?**	**Is This Impact within the Scope of the Program EIR?**
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTSM	Impact BIO-1, pp 3.6-131 – 3.6-138	Yes	AD-1 AQ-3 AQ-4 BIO-1 BIO-2 BIO-7 BIO-9 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-5	BIO-1a BIO-1b	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTSM (all wildlife species except bumble bees) PSU (bumble bees)	Impact BIO-2, pp 3.6-138 – 3.6-184	Yes	AD-1 BIO-1 BIO-2 BIO-3 BIO-4 BIO-8 BIO-10 BIO-11 HAZ-5 HAZ-6 HYD-1 HYD-3 HYD-4 HYD-5	BIO-2a BIO-2b BIO-2e BIO-3a BIO-4	LTSM	No	Yes
Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation That Leads to Loss of Habitat Function	LTSM	Impact BIO-3, pp 3.6-186 – 3.6-191	Yes	AD-1 BIO-1 BIO-2 BIO-3 BIO-4 BIO-6 BIO-8 BIO-9 HYD-4 HYD-5	BIO-3a	LTSM	No	Yes
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTSM	Impact BIO-4, pp 3.6-191 – 3.6-192	Yes	AD-1 BIO-1 HYD-1 HYD-3 HYD-4	BIO-4	LTSM	No	Yes

Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTSM	Impact BIO-5, pp 3.6-192 – 3.6-196	Yes	AD-1 BIO-1 BIO-4 BIO-10 BIO-11 HYD-1 HYD-4	BIO-5	LTSM	No	Yes
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	LTS	Impact BIO-6, pp 3.6-197 – 3.6-198	Yes	AD-1 BIO-1 BIO-2 BIO-3 BIO-4 BIO-12	NA	LTS	No	Yes
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	NI	Impact BIO-7, pp 3.6-198 – 3.6-199	Yes	AD-1 AD-3	NA	NI	No	Yes
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	NI	Impact BIO-8, pp 3.6-199 – 3.6-200	No	--	--	--	--	--

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

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

Discussion

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of Project-specific biological resources, including habitat and vegetation types, and special-status plants, special-status wildlife, and sensitive habitats (e.g., sensitive natural communities, wetlands) with potential to occur in the Project area. Habitat and vegetation types in the Project area were identified using data from the Marin Countywide Fine Scale Vegetation Map, which is based on 2018 high-resolution aerial imagery and 2019 LiDAR data, as well as field surveys conducted in Marin County and analyzed by the California Native Plant Society (CNPS) Vegetation Program (GGNPC et al. 2021). Plant communities depicted in the fine scale map are consistent with the Vegetation Classification of Alliances and Associations in Marin County, California (Buck-Diaz et al. 2021) as well as standards for the Survey of California Vegetation developed by the California Department of Fish and Wildlife's (CDFW) Vegetation Classification and Mapping Program (VegCAMP

2018). The Marin Countywide Fine Scale Vegetation Map adheres to both Manual of California Vegetation (MCV) and National Vegetation Classification (NVC) standards.

Ascent conducted a reconnaissance-level survey of the Project area pursuant to SPR BIO-1 on November 30, 2022. The Project area is in the Northern California Coast ecoregion and ranges in elevation from approximately sea level to 1,240 feet in elevation.

A list of special-status plant and wildlife species with potential to occur in the Project area was compiled by completing a review of the California Natural Diversity Database (CNDDB) and CNPS Inventory of Rare and Endangered Plants of California database records for the following US Geological Survey (USGS) quadrangles containing and surrounding the Project area (i.e., Cotati, Two Rock, Valley Ford, Bodega Head, Double Point, Bolinas, Inverness, Petaluma, Sen Geronimo, Drakes Bay, Tomales, and Point Reyes quadrangles) (CNDDB 2022; CNPS 2022), Appendix BIO-3 (Table 9a, Table 9b, and Table 19) in the CalVTP Final Program EIR (Volume II), the *Tomales Bay State Park General Plan Draft Environmental Impact Report* (CSP 2004a), and other relevant sources. A list of sensitive natural communities with potential to occur in the Project area was compiled by reviewing the Marin County Fine Scale Vegetation Map and comparing mapped vegetation types with the 2022 California Natural Community List (CDFW 2022), assessing community composition during the reconnaissance surveys, completing a CNDDB search of the USGS quadrangles containing and surrounding the Project area (CNDDB 2022), and reviewing Table 3.6-16 (pages 3.6-65 through 3.6-66) in the CalVTP Final Program EIR (Volume II) for sensitive natural communities that could occur in the Northern California Coast ecoregion in the habitat types mapped in the Project area.

All habitat within the Project area was evaluated for its potential to qualify as an environmentally sensitive habitat area (ESHA) pursuant to the California Coastal Act. Criteria considered to determine if an area would be designated as ESHA are presence of rare species or habitats, presence of species or habitats that are valuable, and sensitivity of species or habitats to human disturbance or degradation. The Coastal Commission confirmed that the entire Project area would likely meet the definition of ESHA, as defined in Coastal Act Section 30107.5, during a site visit conducted with Ascent and CSP on April 17, 2023.

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

IMPACT BIO-1

Initial treatments and maintenance treatments could benefit special-status plant species in the park by reducing cover of species that compete with these plants for space, light, water, and nutrients. However, treatment activities could also result in direct or indirect adverse effects on the 64 special-status plant species with suitable habitat in the Project area. Potential impacts resulting from maintenance activities would be similar to those resulting from initial treatments because the same treatment activities would occur, other than prescribed herbivory in coyote brush shrubland and grassland habitats. Maintenance treatments would be timed to mimic the natural fire return interval, but selective invasive species removal through manual and herbicide treatments could be implemented as needed. Additionally, prescribed herbivory would only be implemented during maintenance treatments, and any adverse effects on special-status plants resulting from this treatment activity are described in this section as well. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth, opens the tree canopy to allow more light penetration, or removes invasive competitors can be beneficial for some special-status plant populations; however, repeated treatments at too frequent intervals can have adverse effects on those same special-status plants. In particular, if maintenance treatment occurs in Bishop pine communities at frequencies outside the natural fire return interval, Marin manzanita, and other special-status plants associated with this community type could be adversely affected through habitat

alteration that makes the habitat unsuitable for their growth and reproduction. Therefore, maintenance treatments outside of the natural fire return interval (i.e., treatments occurring less than 40 years after initial treatment for Bishop pine forest) would be targeted and focus on selective hand or manual thinning of excess seedling or sapling recruits, excess resprouting understory shrubs, and manual maintenance treatment of surviving or reestablishing invasive plants. Additionally, treatments to remove dead standing trees may be allowed outside of the normal fire return interval in cases of widespread mortality from wildfire or disease outbreaks. The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR.

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

Several of the special-status plant species that are known to or may occur within the Project area are herbaceous annual species or geophytes, as indicated in Attachment C. Impacts on these species would be avoided by applying only treatment activities that do not kill or remove vegetation or disturb the soil below the surface (i.e., manual treatment, herbicide application, and prescribed burning) and carrying out these treatments only during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inch), and cold snap, which generally occurs between October–December (Levine et al. 2008). Control lines for prescribed burning would have to be created outside of potential habitat for special-status plants or the proposed control line areas would need to be surveyed for special-status plants, including annual species, stump-sprouting species, or geophyte species, prior to installing any control lines. Treatment activities that could potentially kill or remove seeds, stumps, and underground root structures (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted in potential habitat for these species without prior implementation of SPR BIO-7 to determine if they are present. If treatment activities would not be limited to those that do not kill or remove vegetation or disturb the soil below the surface or treatments cannot be completed in the dormant season and would be implemented during the growing period of annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified special-status plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented, as described below. The remaining special-status plant species that have potential to occur within the Project area are perennial species, which could not be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes; therefore, protocol-level surveys under SPR BIO-7 would be necessary to identify them prior to implementing treatment activities regardless of the timing of treatments.

Where protocol-level surveys are required (per SPR BIO-7) and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, will be implemented to avoid loss of identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet will be established around the area occupied by the species within which prescribed burning, mechanical treatment, manual treatment, and herbicide application will not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from the proposed treatment in the occupied habitat area. Control lines and burn piles for

prescribed burning would not be sited in areas known to support special-status plants under any circumstances. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects will need to be made in consultation with CDFW and/or US Fish and Wildlife Service (USFWS), depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants, under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance measures or design alternatives to reduce impacts will be identified. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants will be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants will be maintained because treatment activities and maintenance treatments will be designed to ensure that treatments, including follow-up maintenance treatments, maintain habitat function for the special-status plant species present.

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

As described in the Project description, and pursuant to the Coastal VTS, existing information reviews and implementation surveys will be conducted to delineate the extent of all wetlands within treatment areas. Where wetland habitats are delineated, a 100-foot protection buffer will be established around the wetland boundary. Only treatment activities that would restore ecological benefits to the wetland, or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs, will be allowed within the wetland protection buffer. Treatment activities other than broadcast or cultural burning will not occur within wetlands, and broadcast burning will only be implemented within the expected fire return interval for the vegetation communities present, as determined based on the seven attributes that are generally considered important to ecosystem function (Van Wagtendonk et al. 2018) and from the *Manual of California Vegetation* list of the fire regime attributes of vegetation alliances (Sawyer et al. 2009: Appendix 2, Table A2) (most current natural community data available at http://vegetation.cnps.org/). Consistent with the Coastal VTS and Mitigation Measure BIO-4, broadcast or cultural burning would only be implemented in wetlands if no special-status species are present and habitat function will be maintained or enhanced/restored. Ecological restoration treatments would be implemented within the wetland buffer (e.g., manual treatments, prescribed burning, and/or targeted herbicide application) to remove encroaching conifers, coyote brush shrubs, and invasive plants and reduce thatch buildup in native perennial grasslands that are surrounding and intermixed with wetlands. Fire ignition and accelerants will not be used in the wetland buffers. Therefore, there would be no impacts to special-status plants associated with wetland habitats.

Special-Status Plants Known to Occur in the Project Area

Fifteen special-status plant species—Marin manzanita (*Arctostaphylos virgata*), swamp harebell (*Campanula californica*), Humboldt Bay owl's-clover (*Castilleja ambigua* var. *humboldtiensis*), Mt. Vision ceanothus (*Ceanothus gloriosus* var. *porrectus*), Point Reyes salty bird's-beak (*Chloropyron maritimum* ssp. *Palustre*), Sonoma spineflower (*Chorizanthe valida*), Bolander's water hemlock (*Cicuta maculata* var. *bolanderi*), Franciscan thistle (*Cirsium andrewsii*), western leatherwood (*Dirca occidentalis*), Marin checker lily (*Fritillaria lanceolata* var. *tristulis*), fragrant fritillary (*Fritillaria liliacea*), dark-eyed gilia (*Gilia millefoliata*), marsh Microseris (*Microseris paludosa*), north coast phacelia (*Phacelia insularis* var. *continentis*), and purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*)—are known to occur within the Project area. Therefore, implementation of Mitigation Measures BIO-1a and BIO-1b will be required to avoid loss of individual plants. Any perennial special-status plants found during the surveys conducted under SPR BIO-7, would be protected by establishing a no-disturbance buffer around the area occupied by special-status plants 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 would generally be a minimum of 50 feet around special-status plant occurrences, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid loss of or damage to special-status plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. For the annual and geophytic species, treatments may be

conducted within the no-disturbance buffer outside of the growing season (e.g., after species has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the underground parts of special-status plants or destroy the seedbank. Additional information is provided below on Marin manzanita, a special-status plant species known to occur at Tomales Bay SP, because treatment activities would occur within the no-disturbance buffers of this species, but the species would benefit from the treatments and habitat function would improve with implementation of the treatments. Pursuant to Mitigation Measure BIO-1a and Mitigation Measure BIO-1b, impacts on special-status plants must be avoided unless it is determined that the plants would benefit from treatment and that habitat function would improve with implementation of the treatment.

Marin Manzanita

Marin manzanita is a special-status plant species (refer to Attachment C) that is known to occur in the treatment area. Manual and prescribed burning treatments in Bishop pine forest habitat that contains this species are proposed.

Marin manzanita, a rare manzanita species that is endemic to Marin County, is present in the Heart's Desire and Inverness Areas of the park, where it grows in openings in the Bishop pine and mixed evergreen forests. There are fewer than 20 occurrences of Marin manzanita in existence. Like Bishop pine, Marin manzanita is dependent on stand-replacing fire for regeneration. It is an obligate seeder, meaning it reproduces only from seed and does not resprout from a burl or root crown following fire or cutting (NPS 2007). Obligate seeders in coastal habitats generally have a longer fire return interval than obligate seeders in interior chaparral (Elkhorn Slough 2017). Therefore, it is assumed that Marin manzanita has a natural fire return interval of approximately 35–100 years like other obligate seeders that occur in maritime chaparral. Dormant seeds stored deep in a persistent seed bank are stimulated to sprout by chemical compounds in smoke caused by fire (NPS 2007). Seedlings are not shade tolerant and rely on fire to create openings and bare mineral soil to reestablish. In the absence of fire in Tomales Bay SP, this species is declining due to shading and crowding by other shrubs, and lack of regeneration (Pollack 2016, NPS 2007).

Consistent with the Coastal VTS, the locations of Marin manzanita plants within proposed treatment units will be mapped, the plants flagged for avoidance prior to treatment implementation, and these plants will be avoided. Only manual treatments, targeted herbicide application, or broadcast or cultural burning will be allowed within 50-feet of these plants to remove competing vegetation and expose bare mineral soil that will allow Marin manzanita seedlings to establish. Pile burning will be allowed no closer than 50 feet from Marin manzanita plants as measured from the dripline of individual shrubs and will be used to generate the chemical compounds in smoke that stimulate seeds dormant in the seedbank to sprout. Following initial treatments, if the use of low-intensity surface burning is feasible, broadcast or cultural burning within 5 feet of Marin manzanita plants would provide beneficial effects for these plants by eliminating competitors and stimulating germination. Marin manzanita seeds break dormancy and germinate only in response to chemical compounds contained in smoke; therefore, it is the smoke from fire and not the heat that creates the physiological response to germinate (NPS 2007). The final buffer size would be determined by a qualified biologist or RPF based on site-specific conditions (e.g., fuel loading around the Marin manzanita); the buffer would protect individual manzanita plants from burning or scorching during broadcast burning while also allowing stimulation of the seed bank.

Manual treatments are proposed in areas occupied by this species, but individual plants would be avoided. Although Mitigation Measure BIO-1b will require establishing a minimum 50-foot no-disturbance buffer around the area occupied by the Marin manzanita, manual treatments are proposed immediately adjacent to individual shrubs and to other plant species that are growing over or through and overshadowing Marin manzanita plants. Previous studies have found that obligate seeder manzanita species occupy more open habitat and that these openings may provide areas for post-fire seedling recruitment (Elkhorn Slough 2017). Thinning trees, tree limbs, and competing shrubs around Marin manzanita plants would promote healthier and more resilient stands of Marin manzanita by reducing density and competition with other species and providing preferred open habitat for reestablishment.

Conclusion

The potential for treatment activities to result in adverse effects on special-status plants was examined in the Program EIR. This impact on special-status plants is within the scope of the Program EIR, because the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. Biological resource SPRs that apply to Project impacts under Impact BIO-1 are SPRs AD-1, AQ-3, AQ-4,

BIO-1, BIO-2, BIO-7, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, and HYD-5. Biological resource mitigation measures that apply to Project impacts under Impact BIO-1 are Mitigation Measures BIO-1a and BIO-1b. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-2

Initial treatments and follow-up maintenance treatments could result in direct or indirect adverse effects on special-status wildlife species and habitat suitable for these species within a treatment area, as described in the following sections. Potential impacts resulting from maintenance activities would be similar to those resulting from initial treatments because the same treatment activities would occur. Additionally, prescribed herbivory would only be implemented during maintenance treatments in shrubland and grassland habitats, and any adverse effects on special-status wildlife resulting from this treatment activity are described in the following sections as well.

California Red-Legged Frog

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

The majority of the streams and freshwater wetlands within the Project area are likely too shallow and ephemeral to provide breeding habitat for this species; however, these waters may provide non-breeding aquatic habitat, and the upland portions of the Project area provides upland habitat for the species. Millerton Creek in the eastern portion of the Project area is potentially suitable for breeding, and the species has been documented to occur within the creek (CNDDB 2022). The species has been reported to occur within the portion of the Project area on the Point Reyes Peninsula (CSP 2004b), and the species has also been documented to occur within potential breeding habitat directly adjacent to this portion of the Project area (CNDDB 2022).

Per SPR BIO-1, if it is determined that adverse effects on California red-legged frog can be clearly avoided by physically avoiding habitat suitable for the species, or by conducting treatments outside of the season when California red-legged frog is present, then no further action would be required. SPRs would be implemented and requirements of the Coastal VTS would be met to reduce impacts on California red-legged frog. Consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities within wetlands would be avoided when special-status species are present. Furthermore, WLPZs ranging from 50 to 150 feet from the top of the bank, based on slope, would be implemented adjacent to all Class I and Class II streams within the Project area per SPR HYD-4, which prohibits driving heavy equipment, equipment fueling, placement of burn piles, and fire ignition within these buffers. Additionally, prescribed herbivory treatments in limited areas for maintenance would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas that provide habitat suitable for the species, using temporary fencing or active herding, pursuant to SPR HYD-3. These prohibitions would reduce impacts on California red-legged frog; however, impacts would not be completely avoided because the species is known to occur farther than 150 feet from the top of the bank of aquatic habitat, which is the maximum distance from aquatic habitat where these measures would be applied. Manual treatments, mechanical treatments, prescribed burning, and herbicide application implemented within or outside of these buffers may result in injury or mortality to California red-legged frogs. Prescribed herbivory for maintenance would not result in injury or mortality to California red-legged frog, because the species would be expected to move to avoid grazing animals, and grazing is not likely to remove or collapse cover for California red-legged frog in upland habitat. However, because all adverse effects cannot be clearly avoided for manual treatments, mechanical treatments, prescribed burning, and herbicide

application, and pursuant to SPR BIO-1, SPR BIO-10 would apply. The potential for treatment activities and maintenance treatments to result in adverse effects on California red-legged frog was examined in the Program EIR.

Pursuant to SPR BIO-10, protocol surveys for California red-legged frog would be conducted following the guidelines provided by the USFWS (USFWS 2005) prior to implementation of prescribed burning, mechanical treatments, manual treatments, and herbicide application treatments, or presence of California red-legged frog within the treatment area would be assumed and Mitigation Measure BIO-2a would be required for these activities. If California red-legged frog is not detected during protocol-level surveys, then no mitigation for the species would be required. If California red-legged frog is detected during surveys or assumed to be present, under Mitigation Measure BIO-2a, pre-treatment surveys and biological monitoring for prescribed burning, mechanical treatments, manual treatments, and herbicide application treatment activities would be required year-round within upland habitat (i.e., within 300 feet of freshwater aquatic habitat). In addition, all burn piles within 300 feet of freshwater aquatic habitat would be surveyed prior to burning, and mechanical treatments would be prohibited within 30 feet of Class III streams (Mitigation Measure BIO-2a). Furthermore, under Mitigation Measure BIO-2a, all mechanical equipment (e.g., track chippers, tracked grinder, slope mower) would be shut down for 24 hours following any precipitation event of 0.2 inch to less than 1 inch, 48 hours following any precipitation event 1 inch to less than 2 inches, and 72 hours following any precipitation event greater or equal to 2 inches. 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.

Habitat function for California red-legged frog would be maintained because treatment activities and maintenance treatments would retain approximately 20 to 30 percent relative final density of understory shrubs (10 percent in Bishop pine prescribed burning units) within each treatment area in a mosaic pattern, leave logs greater than 18 inches DBH well-distributed within the treatment area, leave an average chip depth of 3 inches with a maximum of 4 inches in areas where chips are spread, retain woodrat middens when feasible, and retain existing native herbaceous species to the extent practicable. In addition, consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities that may occur within wetlands or within a 100-foot buffer would be limited to those that restore ecological benefits to the wetland. Also, within 100 feet of top of bank and within 50 feet of edge of riparian vegetation, to protect ESHA as consistent with the Coastal VTS and SPR BIO-8, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. These treatments would maintain or enhance habitat function for California red-legged frog. Furthermore, treatments within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment). These standards would maintain cover for California red-legged frog. In addition, SPR HYD-1 would be implemented, which requires compliance with water quality regulations.

Pursuant to Mitigation Measure BIO-2a, and because this species is listed under ESA, CSP has notified USFWS of their proposed avoidance measures and that habitat function would be maintained. For the reasons summarized above, CSP determined that implementation of treatments would maintain habitat function for California red-legged frog. On February 20, 2024, CSP contacted Ryan Olah at USFWS describing the measures that would be taken to avoid mortality, injury, and disturbance to California red-legged frogs and to maintain habitat function in compliance with Mitigation Measure BIO-2a (refer to Attachment B). No refinements to the Project description, SPRs, or mitigation measures resulted from this consultation.

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

Western Pond Turtle

Habitat potentially suitable for western pond turtle (*Emys marmorata*) is limited within the Project area because the generally dense tree cover over much of the Project area inhibits the availability of the basking sites needed for western pond turtle, and the number of perennial waters within the Project area is limited. In addition, the marshes within the Project area are tidal and saline and therefore, not likely to be suitable for the species. However, Millerton Creek and a pond within the Project area on the east side of Tomales Bay may provide aquatic habitat suitable for the species. The portions of the Project area within 0.3 mile of Millerton Creek and the pond provide upland habitat potentially suitable for nesting by the species.

Per SPR BIO-1, if it is determined that adverse effects on western pond turtle can be clearly avoided by physically avoiding habitat suitable for the species, or by conducting treatments outside of the season when western pond turtles are present, then no further action would be required. SPRs would be implemented and Coastal VTS requirements would be met to reduce impacts on western pond turtle. Consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities within wetlands would be avoided when special-status species are present. Furthermore, WLPZs would be implemented per SPR HYD-4, which would reduce impacts on western pond turtle within 150 feet of Class I (e.g., Millerton Creek) and Class II waters. SPR HYD-4 prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of burn piles, and fire ignition within the WLPZ; however, other treatment activities may occur. These prohibitions would reduce the likelihood that injury or mortality of western pond turtle during mechanical treatments and prescribed burning would occur; however, full avoidance of western pond turtle would not be feasible because western pond turtles and nests may be present in grasslands relatively distant (i.e., approximately 1,500 feet) from aquatic habitat in Millerton Creek. Therefore, pursuant to SPR BIO-1, SPR BIO-10 would apply for mechanical treatments and prescribed burning. Herbicide application, manual treatment, and prescribed herbivory are not likely to result in injury or mortality of western pond turtle, because herbicide application and manual treatments would be conducted on foot, and the likelihood of a turtle or burrow being inadvertently crushed or otherwise destroyed would be very low. Additionally, the likelihood of a turtle or burrow being crushed by herbivores used for prescribed herbivory would be low. The potential for treatment activities and maintenance treatments to result in adverse effects on western pond turtle was examined in the Program EIR.

Pursuant to SPR BIO-10 focused surveys for western pond turtle and western pond turtle nests would be conducted within habitat suitable for the species within 0.3 mile of Millerton Creek and the pond on the eastern side of the Project area, prior to implementation of prescribed burning and mechanical treatments. If western pond turtles are not detected within the treatment areas during focused surveys, then no mitigation for the species would be required. If the species is detected during focused surveys, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, CSP would establish a 50-foot buffer around nests for avoidance, including a path from the nest to the nearest aquatic habitat; stop work if individuals are found within the work area; and relocate individuals by a qualified RPF or biologist with a valid CDFW scientific collecting permit to avoid injury to or mortality of these species.

Habitat function for western pond turtle would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, and treatment activities within WLPZs would be limited pursuant to SPR HYD-4 (e.g., no mechanical treatment). In addition, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas that provide habitat suitable for the species using temporary fencing or active herding, pursuant to SPR HYD-3. In addition, treatments within the 100-foot wetland buffer would only occur if they would restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems. Also, within 100 feet of top of bank and within 50 feet of edge of riparian vegetation, to protect ESHA as consistent with the Coastal VTS and SPR BIO-8, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. These treatments would maintain or enhance habitat function for western pond turtle. Furthermore, treatments in grasslands that provide upland nesting habitat potentially suitable for western pond turtle would maintain or restore these grasslands and continue to provide suitable nesting habitat for the species. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

California Giant Salamander

The forested habitats, riparian habitat, streams, and freshwater wetland habitats within the Project area are suitable for California giant salamander (*Dicamptodon ensatus*), which are terrestrial, and migrate to and from perennial streams for breeding during the wet season (CalHerps 2022).

Pursuant to SPR BIO-1, if it is determined that adverse effects on California giant salamander can be clearly avoided, then no mitigation would be required. Consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities within wetlands would be avoided when special-status species are present. Furthermore, WLPZs would be implemented per HYD-4, on Class I (e.g., Millerton Creek) and Class II waters within the treatment areas. SPR HYD-4 prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of

burn piles, and fire ignition within the WLPZ; however, other treatment activities may occur. These measures would reduce the likelihood that injury or mortality of California giant salamander would occur; however, full avoidance of California giant salamander may not occur, because this species can be present further than the buffer distances from stream habitat year-round, and can be injured or killed by mechanical treatments, manual treatments, prescribed burning, or herbicide application. Also, manual treatments or broadcast burning implemented within the WLPZ could result in injury or mortality of this species. If California giant salamanders cannot escape the area during a broadcast burn, which is likely dependent on the speed and intensity of a prescribed burn, then injury or mortality could occur. Therefore, to avoid impacts on California giant salamander, pursuant to SPR BIO-1, SPR BIO-10 would apply for prescribed burning, mechanical treatments, manual treatments, and herbicide application, and focused surveys for California giant salamander would be conducted prior to implementation of prescribed burning, mechanical treatments, manual treatments, and herbicide application, or presence of the species may be assumed. Prescribed herbivory would not result in injury or mortality to California giant salamander because the species is expected to move to avoid grazing animals and grazing is not likely to remove down woody cover exposing these species in upland habitat. The potential for treatment activities and maintenance treatments to result in adverse effects on special-status amphibians was examined in the Program EIR.

If California giant salamander is not detected within the treatment areas during focused surveys, then no mitigation for the species would be required. If the species is detected during focused surveys, or if presence is assumed, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, CSP would require biological monitoring, stopping work if individuals are found within the work area, and relocation of individuals by a qualified RPF or biologist with a valid CDFW scientific collecting permit to avoid injury to or mortality of California giant salamander.

Habitat function for California giant salamander would be maintained because treatment activities and maintenance treatments would retain approximately 20 to 30 percent relative final density of understory shrubs (10 percent in Bishop pine prescribed burning units) within each treatment area in a mosaic pattern, leave logs greater than 18 inches DBH well distributed within the treatment area, leave an average chip depth of 3 inches with a maximum of 4 inches, retain woodrat middens when feasible, and retain existing native herbaceous species to the extent practicable. Most treatments would not occur within 50 feet of the outer (i.e., landward) edge of riparian vegetation or within 100 feet of the top of stream banks, or wetlands. However, treatments may occur within the wetland buffer if they restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems. Within 100 feet of top of bank and within 50 feet of edge of riparian vegetation, to protect ESHA as consistent with the Coastal VTS and SPR BIO-8, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. These treatments would maintain or enhance habitat function for California giant salamander. In addition, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas that provide habitat suitable for the species using temporary fencing or active herding, pursuant to SPR HYD-3. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Foothill Yellow-Legged Frog

Foothill yellow legged frog (*Rana boylii*) is known to occur within the Project area. Foothill yellow-legged frog is a highly aquatic species and normally not found farther than a few feet from streams; however, foothill yellow-legged frog will follow wetted channels and range farther into uplands (i.e., up to approximately 200 feet) during wet periods where they may shelter under logs and similar structures (CDFW 2018b). The potential distribution of foothill yellow-legged frog within the Project area is limited to Millerton Creek, other perennial streams with adequate sun exposure, and adjacent uplands.

Pursuant to SPR BIO-1, if it is determined that adverse effects on foothill yellow-legged frog can be clearly avoided, then no mitigation would be required. WLPZs would be implemented per HYD-4, on Class I (e.g., Millerton Creek) and Class II waters within the treatment areas. Consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities within wetlands would be avoided when special-status species are present. Furthermore, SPR HYD-4 prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of burn piles, and fire ignition within the WLPZ; however, other treatment activities may occur. These measures would

reduce the likelihood that injury or mortality of foothill yellow legged frog would occur; however, full avoidance of foothill yellow-legged frog may not occur, because this species can be present year-round up to 200 feet from suitable aquatic habitat (i.e., perennial streams with adequate sun exposure), which is further into uplands than the buffer distances from stream habitat. Therefore, individual foothill yellow-legged frogs can be injured or killed by mechanical treatments, manual treatments, prescribed burning, or herbicide application. In addition, manual treatments or broadcast burning implemented within the WLPZ could result in injury or mortality of this species. While, depending on the speed and intensity of a prescribed burn, foothill yellow-legged frogs may be able to escape the area during a broadcast burn, this may not be the case and injury or mortality could still occur. Therefore, to avoid impacts on foothill yellow-legged frog, pursuant to SPR BIO-1, SPR BIO-10 would apply for prescribed burning, mechanical treatments, manual treatments, and herbicide application, and focused surveys for foothill yellow-legged frog would be conducted within 200 feet of suitable habitat prior to implementation of prescribed burning, mechanical treatments, manual treatments, and herbicide application, or presence of the species may be assumed. Prescribed herbivory would not result in injury or mortality to foothill yellow-legged frog because the species is expected to move to avoid grazing animals and grazing is not likely to remove down woody cover exposing the species in upland habitat. The potential for treatment activities and maintenance treatments to result in adverse effects on special-status amphibians was examined in the Program EIR.

If foothill yellow-legged frog is not detected within the treatment areas during focused surveys, then no mitigation for the species would be required. If the species is detected during focused surveys, or presence is assumed, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, CSP would require biological monitoring, stopping work if individuals are found within the work area, and relocation of individuals by a qualified RPF or biologist with a valid CDFW scientific collecting permit to avoid injury to or mortality of foothill yellow-legged frog.

Habitat function for foothill yellow-legged frog would be maintained because treatment activities and maintenance treatments would retain approximately 20 to 30 percent relative final density of understory shrubs (10 percent in Bishop pine prescribed burning units) within each treatment area in a mosaic pattern, leave logs greater than 18 inches DBH well distributed within the treatment area, leave an average chip depth of 3 inches with a maximum of 4 inches, retain woodrat middens when feasible, and retain existing native herbaceous species to the extent practicable. Also, most treatments would not occur within 50 feet of the outer (i.e., landward) edge of riparian vegetation or within 100 feet of the top of stream banks, or wetlands. However, treatments may occur within the wetland buffer if they restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems. Within 100 feet of top of bank and within 50 feet of edge of riparian vegetation, to protect ESHA as consistent with the Coastal VTS and SPR BIO-8, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. These treatments would maintain or enhance habitat function for foothill yellow-legged frog. In addition, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas that provide habitat suitable for the species using temporary fencing or active herding, pursuant to SPR HYD-3. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Northern Spotted-Owl

Northern spotted owl (*Strix occidentalis caurina*) has been documented to nest within and adjacent to the Project area (CNDDB 2022; CSP 2004b), and forested habitats within the Project area are suitable for the species.

Treatment activities that include the use of prescribed burning or heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws), such as used for mechanical treatments and manual treatments, could result in disturbance of nesting northern spotted owl within treatment areas and in adjacent occupied habitat, if these activities occur during the sensitive portion of the nesting season (February 1 through July 31) (USFWS 2020). In addition, while most high vigor trees under 10 inches DBH would be retained, removal of some large trees and snags may occur. If mechanical or manual tree removal occurs during the sensitive portion of the nesting season, this could result in the direct loss of nests and mortality of eggs and chicks. Herbicide application is not anticipated to generate loud and continuous noise, but could result in disturbance of nesting northern spotted owl if implemented within treatment areas within the sensitive

portion of the nesting season. Prescribed herbivory would not result in adverse effects on nesting spotted owl because it would not occur in nesting habitat suitable for the species, and because this activity would not involve the use of loud and continuous noise from equipment or tools, significant habitat modification, or substantial visual stimuli from human presence close enough to a northern spotted owl nest to result in disturbance of the nest. The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Pursuant to SPR BIO-1, a qualified RPF or biologist would review available northern spotted owl occurrence data (e.g., CNDDB, National Park Service) to determine whether a documented northern spotted owl nesting occurrence is present on adjacent lands within 0.25 mile of the treatment area. Furthermore, the qualified RPF or biologist would survey for suitable nesting habitat within the treatment area. Per SPR BIO-1, if it is determined that adverse effects on northern spotted owl can be clearly avoided by physically avoiding habitat suitable for the species within the treatment area, and by conducting treatments that occur within 328 feet to 0.25 mile (depending on the type of activity and the amount of noise generated by the activity; see Attachment A) of suitable habitat within the Project area and of nearby documented nesting occurrences outside of the season of sensitivity (i.e., February 1 through July 31), then further avoidance measures would not be required.

If it is not feasible to avoid disturbance, injury, or mortality of nesting and fledgling northern spotted owls pursuant to SPR BIO-1 (refer to previous paragraph), then SPR BIO-10 would be implemented. Pursuant to SPR BIO-10, surveys following the USFWS *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls* (USFWS 2012) would occur, unless current surveys following that protocol have already been conducted. If northern spotted owl nests or activity centers are documented during the data search of adjacent lands (unless there is evidence that the documented occurrence is no longer present), or if nests are detected during surveys (pursuant to SPR BIO-10), Mitigation Measure BIO-2a would apply.

Per Mitigation Measure BIO-2a, potential direct and indirect impacts on any nest resulting from Project activities would be avoided by implementing a limited operating period during the northern spotted owl nesting season (February 1 through July 31) for mechanical treatments and manual treatments within 328 feet to 0.25 mile of the nest, depending on the noise generated by the activity (following USFWS 2018; USFWS 2020). Because herbicide application is not anticipated to generate loud and continuous noise but could disturb nesting owls if implemented close to a nest, a buffer of 328 feet around the nest would be applied for herbicide application during the northern spotted owl nesting season (February 1 through July 31), which may be reduced by a qualified RPF or qualified biologist based on the existing human disturbance within the treatment area, topography, screening vegetation and other factors. Furthermore, a limited operating period for prescribed burning of February 1 through July 31 within 0.25 mile of active nests would also be implemented.

Habitat function for northern spotted owl would be maintained because treatments retain woodrat middens when feasible, which would protect a primary prey population for spotted owl. Treatments would also retain Douglas fir over 30 inches DBH, and retain high vigor Bishop pine, tanoak, madrone, and oaks, generally greater than 10 inches DBH. These standards would result in retention of larger trees that are the most likely features to provide nesting habitat for northern spotted owl. Although some snags would be removed, at least one to three snags per acre would be retained (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). In addition, Mitigation Measure BIO-2a would require retention of occupied habitat (i.e., within 0.7 mile of an activity center) that would meet the standard of high-quality nesting habitat (USFWS 2019; see Attachment A).

Pursuant to Mitigation Measure BIO-2a, and because this species is listed under CESA and ESA, CSP has notified CDFW and USFWS of their proposed avoidance measures and that habitat function would be maintained. For the reasons summarized above, CSP determined that implementation of treatments would maintain habitat function for northern spotted owl. On February 20, 2024, CSP contacted Ryan Olah at USFWS and Region 3 Timber staff at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to northern spotted owl and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the Project description, SPRs, or mitigation measures resulted from this consultation. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Special-Status Raptors

Habitats within the Project area are suitable nesting and foraging habitat for burrowing owl (*Athene cunicularia*), long-eared owl (*Asio otus*), Northern harrier (*Circus hudsonius*), short-eared owl (*Asio flammeus*), and white-tailed kite (*Elanus leucurus*).

Per SPR BIO-1, if it is determined that adverse effects on nesting special-status raptors can be clearly avoided by physically avoiding habitat suitable for the species or conducting treatments outside of the season of sensitivity (i.e., nesting bird season, burrowing owl dispersal and overwintering season), then no survey or mitigation would be required. Initial and maintenance treatments including mechanical treatments, manual treatments, prescribed burning, herbicide application, and prescribed herbivory, if conducted in the nesting bird season (February 1 through August 31) may result in the disturbance of active nests of burrowing owl, long-eared owl, Northern harrier, short-eared owl, and white-tailed kite if they occur within nesting habitat suitable for these species. Additionally, mechanical treatments and manual treatments with power tools (e.g., chainsaws) within grassland and shrubland habitats could result in adverse effects on burrowing owls overwintering in the Project area if conducted during the burrowing owl dispersal and overwintering season (September 1 through January 31).

Nest disturbance of burrowing owl, long-eared owl, Northern harrier, short-eared owl, and white-tailed kite or winter burrowing owl burrow disturbance, as a result of auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel, herbivores), may result in burrow or nest abandonment and the loss of eggs and chicks. Herbicide application would not result in adverse effects on burrowing owls, because personnel implementing these treatments would conduct these activities on foot, and the likelihood of a burrow being inadvertently crushed or otherwise destroyed would be very low. Additionally, herbicide application is not likely to occur continuously in the vicinity of a burrow resulting in a substantial interruption of feeding. Avoidance of both the nesting bird season and burrowing owl dispersal and overwintering season for mechanical treatments and manual treatments with power tools would not be feasible, because it would preclude the entire year from treatments in certain habitats. If conducting any given treatment outside of the nesting bird season or mechanical treatments and manual treatments outside of the burrowing owl dispersal and overwintering season is determined to be infeasible, then SPR BIO-10 would apply. The potential for treatment activities to result in adverse effects on special-status raptors was examined in the Program EIR.

Per SPR BIO-10 focused nesting raptor surveys for burrowing owl, long-eared owl, Northern harrier, short-eared owl, and white-tailed kite, or winter burrowing owl surveys, would be conducted prior to implementation of treatment activities within habitat suitable for these species. If no active special-status raptor nests or active overwintering burrowing owls are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status raptor nests or active overwintering burrowing owls are observed during focused surveys, then Mitigation Measures BIO-2a (white-tailed kite) and BIO-2b (burrowing owl, long-eared owl, Northern harrier, and short-eared owl) would be implemented.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 0.25 mile for special-status raptor nests would be implemented and no treatment activities would occur within this buffer until the chicks have fledged as determined by a qualified biologist or RPF. This buffer may be reduced by the qualified biologist or RPF to a minimum of 500 feet based on the type of activity, the existing human disturbance within the treatment area, topography, screening vegetation and other factors. If active overwintering burrowing owls are observed during focused surveys, then a no-disturbance buffer of 164 to 330 feet for winter burrowing owl burrows (depending on the intensity of the disturbance; CDFW 2012) would be implemented, and no treatment activities would occur within this buffer until the winter burrowing owl burrow is inactive as determined by a qualified biologist or RPF.

Habitat function for special-status raptors would be maintained because treatments would retain Douglas fir over 30 inches DBH, and retain high vigor Bishop pine, tanoak, madrone, and oaks, generally greater than 10 inches DBH. This would retain nesting habitat for special-status raptors. Although some snags would be removed, at least one to three snags per acre would be retained (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife). SPR BIO-4 would require retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation used for foraging and nesting. Additionally, the Project would remove coyote brush that is encroaching into grassland habitats within the Project area, which is anticipated to result in an increase in available grassland foraging habitat for special status raptors.

Pursuant to Mitigation Measure BIO-2a, and because white-tailed kite is a fully protected species under California Fish and Game Code, CSP has notified CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, CSP determined that implementation of treatments would maintain habitat function for white-tailed kite. On February 20, 2024, CSP sent a memo to Region 3 Timber staff at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to white-tailed kite and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the Project description, SPRs, or mitigation measures resulted from this consultation. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Other Special-Status Birds

Marshes within the Project area provide nesting habitat for California clapper rail (*Rallus obsoletus obsoletus*), California black rail (*Laterallus jamaicensis coturniculus*), and yellow rail (*Coturnicops noveboracensis*). While California clapper rail and yellow rail have not been documented to occur within the marshes in the Project area, California black rail is known to occur historically within the Project area (CNDDB 2022). Additionally, the freshwater marsh and other wetlands within the Project area provide habitat for nesting colonies of Tricolored blackbird (*Agelaius tricolor*), which is known to occur in the North Marshall portion of the Project area. In addition, freshwater marsh and saltwater marsh in the Project area may also support saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), and riparian habitat within the Project area may be used as nesting habitat by yellow warbler (*Setophaga petechia*). Saltmarsh common yellowthroat and yellow warbler are documented to occur in multiple locations in the Tomales Bay and Point Reyes region outside of the Project area (CNDDB 2022). The beaches directly adjacent to but outside of the Project area may provide foraging habitat for western snowy plover (*Charadrius nivosus nivosus*), which have been documented to nest along the beaches of Point Reyes and Tomales Bay outside of the Project area (CNDDB 2022). Treatment activities may occur directly adjacent to the beaches.

Per SPR BIO-1, if it is determined that adverse effects on nesting special-status birds can be clearly avoided by physically avoiding habitat suitable for the species or conducting treatments outside of the season of sensitivity (i.e., nesting bird season), then no survey or mitigation would be required. Initial and maintenance treatments including mechanical treatments, manual treatments, prescribed burning, herbicide application, and prescribed herbivory are not anticipated to have substantial adverse effects (e.g., substantial disruption of access to prey species, or injury or mortality of foraging birds) on foraging western snowy plover. Treatment activities (i.e., mechanical treatments, manual treatments, prescribed burning, prescribed herbivory, and herbicide application that is conducted off of existing recreational trails) conducted during the nesting bird season (February 1 through August 31), may result in the disturbance of active nests of California clapper rail, California black rail, saltmarsh common yellowthroat, tricolored blackbird, and yellow rail if nests occur within or adjacent to treatment areas. Nest disturbance, either as a result of direct destruction of the nest, or as a result of auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, fire, personnel, livestock), may result in loss of eggs and chicks. If conducting any given treatment outside of the nesting bird season is determined to be infeasible, then pursuant to SPR BIO-1, SPR BIO-10 would apply. The potential for treatment activities to result in adverse effects on special-status birds was examined in the Program EIR.

Per SPR BIO-10, focused surveys for nesting birds would be conducted prior to implementation of mechanical treatments, manual treatments, prescribed burning, herbicide application, and prescribed herbivory within habitat suitable for these species. If no active special-status bird nests are observed during focused surveys, then additional avoidance measures for these species would not be required. If active special-status bird nests are observed during focused surveys, then Mitigation Measures BIO-2a (California clapper rail, California black rail, and tricolored blackbird) and BIO-2b (saltmarsh common yellowthroat, yellow rail, and yellow warbler) would be implemented.

Under Mitigation Measures BIO-2a and BIO-2b, a no-disturbance buffer of at least 700 feet would be established around California clapper rail nests (USFWS 2021a), 600 feet around California black rail nests, 300 feet around active tricolored blackbird colonies, and at least 300 feet around the nests of other special-status birds, and no treatment activities would occur within the buffer until the chicks have fledged as determined by a qualified biologist or RPF.

Habitat function for special-status birds would be maintained because treatment activities would avoid marsh habitat suitable for nesting by special-status birds. In addition, consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities that may occur within wetlands or within a 100-foot buffer would be limited to those that restore ecological benefits to the wetland. Also, within 100 feet of top of bank and within 50 feet of edge of riparian vegetation, to protect ESHA as consistent with the Coastal VTS and SPR BIO-8, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. Furthermore, SPR BIO-4 would require retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation, which would avoid impacts on riparian habitat used for foraging and nesting.

Pursuant to Mitigation Measure BIO-2a, and because California clapper rail, California black rail, and tricolored blackbird are listed under CESA, CSP must notify CDFW about its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. Similarly, USFWS must be notified regarding determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained for California clapper rail, which is listed under ESA.

For the reasons summarized above, CSP determined that implementation of treatments would maintain habitat function for California clapper rail, California black rail, and tricolored blackbird pursuant to Mitigation Measure BIO-2a. On February 20, 2024, CSP sent a memo to Region 3 Timber staff at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to California clapper rail, California black rail, and tricolored blackbird and to maintain habitat function in compliance with Mitigation Measure BIO-2a. In addition, on February 20, 2024, CSP notified Ryan Olah at USFWS describing the measures that would be taken to avoid mortality, injury, and disturbance to California clapper rail and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the Project description, SPRs, or mitigation measures resulted from this consultation. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Special-Status Fish and California Freshwater Shrimp

Saltwater marshes, and the larger perennial streams within the Project area (e.g., Millerton Creek) may provide habitat for several special-status fish, coho salmon – central California coast evolutionary significant unit (ESU) (*Oncorhynchus kisutch*), eulachon (*Thaleichthys pacificus*), longfin smelt (*Spirinchus thaleichthys*), southern coastal roach (*Hesperoleucus venustus subditus*), steelhead – central California coast distinct population segment (DPS) (*Oncorhynchus mykiss irideus*), and tidewater goby (*Eucyclogobius newberryi*). Longfin smelt, is documented to occur within Tomales Bay, while southern coastal roach is documented to occur within Lagunitas Creek. Coho salmon and steelhead are documented to occur within Lagunitas Creek (CNDDB 2022) and therefore must pass through Tomales Bay during spawning and downstream migration. Tidewater goby is documented to occur within the Project area. California freshwater shrimp (*Syncaris pacifica*) is known to occur in Lagunitas Creek and Olema Creek, which drain into Tomales Bay south of the Project area (CNDDB 2022). However, the species is not known to occur within the Project area, has not been found in salt or brackish water, and is not known to inhabit intertidal or estuarine areas (USFWS 2011). However, the larger streams that maintain perennial flow or water within pools within the Project area may provide habitat suitable for the species (e.g., Millerton Creek). The potential for treatment activities and maintenance treatments to result in adverse effects on special-status fish and California freshwater shrimp was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status fish and California freshwater shrimp can be clearly avoided by physically avoiding habitat for these species, then mitigation would not be required. Treatments would not occur within aquatic habitat for these species. Furthermore, WLPZs would be implemented per SPR HYD-4, which prohibits operating heavy equipment, crossing watercourses unless dry, equipment fueling, placement of burn piles, and fire ignition within the WLPZ; however, other treatment activities may occur. In addition, prescribed herbivory treatments would be excluded within 50 feet of environmentally sensitive areas such as waterbodies, wetlands, or riparian areas using temporary fencing or active herding, pursuant to SPR HYD-3. These measures would reduce the likelihood of contaminated runoff reaching the streams that are habitat for special-status fish and California freshwater shrimp due to treatment activities. Therefore, adverse effects on special-status fish and California freshwater shrimp would be clearly avoided through implementation of these SPRs and further mitigation would not be required.

Habitat function for special-status fish and California freshwater shrimp would be maintained because SPR BIO-4 would require retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation, which would maintain stream shading and water temperature. Consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities that may occur within wetlands or within a 100-foot buffer would be limited to those that restore ecological benefits to the wetland. Also, within 100 feet of top of bank and within 50 feet of edge of riparian vegetation, to protect ESHA as consistent with the Coastal VTS and SPR BIO-8, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. These treatments would maintain or enhance habitat function for special-status fish and California freshwater shrimp. In addition, SPR HYD-3 would require that prescribed herbivory treatments are excluded from habitat suitable for these species, and SPR HYD-1 requires compliance with water quality regulations. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Monarch Butterfly

Monarch butterfly (*Danaus plexippus*) has been documented to occur within the Project area (Western Monarch and Milkweed Mapper 2023); however, the area is not known to support overwintering monarchs. While overwintering monarchs or priority overwintering sites have not been documented within the Project area (CNDDB 2022), Bishop pine, eucalyptus, and other tree stands within the Project area may provide suitable overwintering habitat for the species. Furthermore, while monarch butterfly host plants, milkweed (*Asclepias* spp.), have not been documented within the Project area (Western Monarch and Milkweed Mapper 2023), the Project area may contain monarch host plants.

Prescribed herbivory and herbicide application are not anticipated to result in an adverse effect on monarch overwintering habitat because roosting trees would not be removed. However, prescribed burning, mechanical treatments, and manual treatments would occur in habitat potentially suitable for special-status butterflies. These treatments activities could result in the disturbance of overwintering monarch butterfly roosting stands, if present, which could result in impacts on individual butterflies. In addition, prescribed burning, mechanical treatments, manual treatments, herbicide application, and prescribed herbivory within grassland habitat could result in the crushing or burning of host plants and adverse effects on individual monarch butterflies. The potential for all treatment activities to result in adverse effects on special-status butterflies was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on special-status butterflies can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. Overwintering monarch butterflies can be avoided by avoiding prescribed burning, manual treatment, and mechanical treatment of tree stands during the overwintering period (September through March) (Xerces 2017). If treatments within monarch overwintering habitat cannot avoid the sensitive season for that species, SPR BIO-10 would apply, and focused surveys for suitable overwintering stands would be required. If suitable overwintering stands are present within the Project area, further focused surveys for overwintering monarch butterflies would be required. If no overwintering monarch butterflies are observed during focused surveys, then no additional avoidance measures for overwintering monarch butterflies would be required. However, if overwintering monarch butterflies are observed, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b potential monarch overwintering stands would be evaluated, and treatment activities would be avoided in occupied stands.

Mechanical, manual, herbicide, and prescribed burning treatments conducted in grassland, shrub, and oak woodland habitat during the season when monarch eggs, larvae, and pupae are likely to be present on milkweed host plants (March 15-October 31) may result in loss of eggs, larvae, and pupae. If it is not feasible to avoid conducting mechanical, manual, herbicide, and prescribed burning treatments during the period March 15 – October 31, SPR BIO-10 would apply, and focused surveys for host plants (i.e., *Asclepias* spp., milkweeds) would be required. Surveys for eggs, larvae, or pupae would also be required, or presence may be assumed. If monarch host plants are detected with eggs, larvae, or pupae during focused surveys, or the presence of eggs, larvae, or pupae are assumed, then Mitigation Measure BIO-2e would be implemented. Under Mitigation Measure BIO-2e no treatment activities of any kind would occur within 10 feet of milkweed host plants of monarch butterfly if feasible while above ground portions of the plant are present.

Habitat function for overwintering monarch butterfly would be maintained because encroaching shrubs and conifers from grasslands would be removed to promote habitat diversity and maintain or restore existing grasslands, and Mitigation Measure BIO-2b would be implemented, which requires a treatment plan that maintains the suitability of monarch butterfly overwintering stands. Habitat function for breeding monarch butterfly would be maintained through implementation of SPR BIO-9, which prevents the spread of invasive plants that could outcompete the host plants of these species. In addition, Mitigation Measure BIO-2e requires avoidance of host plants in occupied habitat and requires that unoccupied habitat be treated in a patchy pattern such that all habitat is not treated or not treated in the same year.

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

Myrtle's Silverspot Butterfly

The Project area is within the historic range of Myrtle's sliverspot butterfly (*Speyeria zerene myrtleae*), although the only known extant population within the vicinity of the Project area is limited to the coastal dunes of Point Reyes National Seashore (USFWS 2021b). However, the host plant for the species, blue violet (*Viola adunca*), is known to occur in several locations within the Project area (Calflora 2023). Therefore, the species may occur in the more open portions of the Project area where there is suitable habitat for blue violet.

Prescribed burning, mechanical treatments, manual treatments, herbicide application, and prescribed herbivory within grassland habitat could result in the crushing or burning of host plants and adverse effects on Myrtle's silverspot butterflies. The potential for all treatment activities to result in adverse effects on special-status butterflies was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on Myrtle's silverspot butterflies can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. Because Myrtle's silverspot butterfly may be present within coastal grassland habitat in the Project area year-round, the sensitive season for this species cannot be avoided. It is also not possible to physically avoid the habitat for this species as host plants may occur within treatment areas. Therefore, SPR BIO-10 would apply, and focused surveys for Myrtle's silverspot butterfly would be required, or presence may be assumed. Because the Project area is within the range of the ESA-listed Myrtle's silverspot butterfly and near the only known extant population, Mitigation Measure BIO-2e for Myrtle's silverspot butterfly would be implemented, regardless of the results of SPR BIO-10 surveys, although the implementation of specific measures within Mitigation Measure BIO-2e would be informed by the results of the focused surveys if conducted. Under Mitigation Measure BIO-2e, surveys for Myrtle's silverspot butterfly host plants (i.e., *Viola* spp.) would be required and no treatment activities of any kind would occur within 10 feet of host plants in habitat occupied by Myrtle's silverspot or habitat assumed to be occupied, and no prescribed herbivory would be permitted in known or assumed occupied habitat, unless it can be demonstrated that host plant is unpalatable to the herbivore.

Habitat function for Myrtle's silverspot butterfly would be maintained through implementation of SPR BIO-9, which prevents the spread of invasive plants that could outcompete the host plants of these species. In addition, Mitigation Measure BIO-2e requires avoidance of host plants in habitat occupied by Myrtle's silverspot or habitat assumed to be occupied and requires that unoccupied habitat be treated in a patchy pattern such that all habitat is not treated or not treated in the same year. Furthermore, the host plant for Myrtle's silverspot butterfly may benefit from the clearing of overlying debris by prescribed burning (Black and Vaughan 2005), and the removal of encroaching coyote brush into grassland habitat as part of the Project would maintain and increase grassland habitat within the Project area, which provides habitat for Myrtle's sliverspot butterfly.

Pursuant to Mitigation Measure BIO-2e, and because Myrtle's silverspot butterfly is listed under ESA, CSP has notified USFWS regarding its determination that mortality, injury, or disturbance would not occur, and habitat function would be maintained. For the reasons summarized above, CSP determined that implementation of treatments would maintain habitat function for Myrtle's silverspot butterfly. On February 20, 2024, CSP contacted Ryan Olah at USFWS describing the measures that would be taken to avoid mortality, injury, and disturbance to Myrtle's silverspot butterfly and to maintain habitat function in compliance with Mitigation Measure BIO-2e. No refinements to the Project description, SPRs, or mitigation measures resulted from this consultation.

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

Ringtail

Ringtail (*Bassariscus astutus*) are primarily nocturnal and typically occur in riparian areas, forests (including stands of various ages), and shrub habitats. Potential denning locations include rock outcrops, crevices, snags, large hardwoods, large conifers, and areas of dense shrubs within and adjacent to forested areas. While rock outcrops would not be targeted for treatment activities, and logs suitable for denning would be retained, the removal of larger snags and trees greater than 12 inches DBH, and the mastication of areas of dense shrubs may result in disturbance of ringtail dens. The potential for treatment activities, including maintenance treatments, to result in adverse effects on ringtail was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on ringtail can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season; April 15 through June 30), then mitigation would not be required. Outside of the maternity season, resting ringtails would likely flee due to the presence of equipment, vehicles, or personnel, and injury or mortality would not be expected. Prescribed herbivory and herbicide application would not result in adverse effects on ringtail dens because these activities would not be expected to result in disturbance or removal of den sites. Manual treatments except for snag and large tree (i.e., greater than 12 inches DBH) removal would not result in adverse effects, because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. Adverse effects on ringtail would be clearly avoided for mechanical treatments, manual snag removal, and prescribed burning that would occur outside of the ringtail maternity season (April 15 through June 30).

If conducting prescribed burning, mechanical treatments, or manual snag or large tree (i.e., greater than 12 inches DBH) removal outside of the ringtail maternity season is not feasible, then SPR BIO-10 would apply, and presence of ringtail would be assumed or focused surveys for ringtail would be conducted within the treatment areas prior to implementation of treatment activities. Surveys for ringtail would include the use of trail cameras, track plates, and other non-invasive survey methods to determine whether ringtail is present within the treatment area and would be conducted by a qualified RPF or biologist. If ringtail are not detected during focused surveys, then further mitigation for the species would not be required.

If ringtail are detected during focused surveys, then Mitigation Measure BIO-2a would be implemented and additional surveys would be required to determine whether an active ringtail den is present within the treatment area. If an active den is identified by a qualified RPF or biologist, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW. No treatment activities would occur within this buffer until at least the end of the ringtail maternity season. If the presence of ringtail within the treatment areas is assumed, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2a prior to and during implementation of prescribed burning, mechanical treatments, and manual snag removal or large tree (i.e., greater than 12 inches DBH) between April 15 and June 30. Avoidance and minimization measures would include but not be limited to den surveys, daily sweeps of treatment areas, and biological monitoring.

Habitat function for ringtail would be maintained because treatment activities would retain logs greater than 18 inches DBH well distributed within the landscape, would retain at least one to three snags per acre (with a preference for the largest snags that exhibit the form and decay characteristics favored by wildlife), and retain high vigor Bishop pine and oaks, generally greater than 10 inches DBH. Furthermore, chaparral habitats would not be treated, and SPR BIO-4 would require retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation suitable for the species. In the areas of forested habitat within the Project area, 20 to 30 percent relative shrub cover would be retained (10 percent in Bishop pine prescribed burning units). Creation of a mosaic pattern (refer to Section 2.4.1, "Treatment Type – Ecosystem Restoration") would not likely result in a decrease of habitat function, because ringtail often select rest and den sites near habitat edges and are tolerant to disturbance (Myers 2010; Wyatt, pers. comm., 2021). Treatment activities would likely create additional edge habitat, which would be used by ringtail.

Pursuant to Mitigation Measure BIO-2a, and because ringtail is a fully protected species under California Fish and Game Code, CSP has notified CDFW regarding its determination that mortality, injury, or disturbance would not

occur, and habitat function would be maintained. For the reasons summarized above, CSP determined that implementation of treatments would maintain habitat function for ringtail. On February 20, 2024, CSP sent a memo to Region 3 Timber staff at CDFW describing the measures that would be taken to avoid mortality, injury, and disturbance to ringtail and to maintain habitat function in compliance with Mitigation Measure BIO-2a. No refinements to the Project description, SPRs, or mitigation measures resulted from this consultation. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Point Reyes Jumping Mouse

Point Reyes jumping mouse (*Zapus trinotatus orarius*) is documented to occur on the Point Reyes Peninsula in the vicinity of the Project area (CNDDB 2022). Habitat types that are potentially suitable for Point Reyes jumping mouse are bunch grass marsh, wet meadows, and open shrub habitats (e.g., low growing scrub). The northern portion of the Heart's Desire area on the Point Reyes Peninsula contains open shrub habitat potentially suitable for the species. The portion of the Project area on the eastern side of Tomales Bay is not considered to be habitat for Point Reyes jumping mouse, which is not known to occur north or east of the Point Reyes Peninsula.

Per SPR BIO-1, if it is determined that adverse effects on Point Reyes jumping mouse can be clearly avoided by physically avoiding habitat suitable for the species or conducting treatments outside of the season of sensitivity (i.e., breeding season) (May 1 to September 30) (Collins 1998a), then no survey or mitigation would be required. However, manual treatments, mechanical treatments, prescribed herbivory, herbicide application, and prescribed burning treatments that occur in open shrub habitat in the northern portion of the Heart's Desire area on the Point Reyes Peninsula may result in disruption of the above ground nests of Point Reyes jumping mouse and loss of young if these habitats are suitable and treatments occur during the breeding season. During the winter months the species hibernates below ground in burrows (Collins 1998a) and treatments would not likely result in substantial injury or death of individuals during this period, due to the relative depth of the burrows of the species (Krutzsch 1954). If conducting treatment within habitat suitable for the species outside of the breeding season is determined to be infeasible, then pursuant to SPR BIO-1, SPR BIO-10 would apply. The potential for treatment activities to result in adverse effects on Point Reyes jumping mouse was examined in the Program EIR.

If required, SPR BIO-10 would require that focused surveys for Point Reyes jumping mouse be conducted prior to implementation of treatment activities within habitat potentially suitable for the species. If no suitable habitat is determined to be present or no Point Reyes jumping mice or signs of the species are observed during focused surveys, then additional avoidance measures for these species would not be required. If suitable habitat is present and Point Reyes jumping mice or signs of the species are observed during focused surveys, then Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a limited operating period for occupied Point Reyes jumping mouse habitat would be implemented within occupied habitat and no Project activities would take place between May 1 to September 30. Habitat function for Point Reyes jumping mouse would be maintained because habitat suitable for the species (i.e., open shrub) would be maintained and open shrub habitat would likely be restored through treatments. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Point Reyes Mountain Beaver

The seeps within shrub habitat and shrub habitat on moist north facing slopes on the Point Reyes Peninsula are potentially suitable for Point Reyes mountain beaver (*Aplodontia rufa phaea*) (Collins 1998b), which is documented to occur in the Project vicinity (CNDDB 2022). Wildfires that have occurred within the range of the Point Reyes mountain beaver in the last 30 years have resulted in mortality and reduction of habitat (NPS n.d.). The Vision Fire, which occurred in 1995 and burned part of the Project area was one of the fires that reduced the amount of habitat available to the species. All treatment activities that occur in suitable shrub habitat for Point Reyes mountain beaver could result in the crushing of the shallow burrows of this species and potential injury or mortality of individuals. The potential for treatment activities to result in adverse effects on Point Reyes mountain beaver was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on Point Reyes mountain beaver can be clearly avoided by physically avoiding habitat for this species, then mitigation would not be required. Consistent with the Coastal VTS and

pursuant to Mitigation Measure BIO-4, treatment activities within wetlands would be avoided when special-status species are present; however, Point Reyes mountain beaver may occur outside of wetlands, and the habitat for the species may not be completely avoided by treatment activities when species are present. In addition, the species is present year-round such that a sensitive season cannot be avoided. Therefore, pursuant to SPR BIO-1, implementation of SPR BIO-10 would be required before implementing treatments in suitable shrub habitats. Under SPR BIO-10, habitat assessments within potentially suitable habitats (i.e., north facing moist shrub habitats on the Point Reyes Peninsula) would be conducted by a qualified RPF or biologist, and focused surveys would be conducted by a qualified RPF or biologist for burrows and signs within habitat suitable for the species. If the shrub habitat to be treated is determined not to be suitable or Point Reyes mountain beaver is not detected during focused surveys, then further mitigation for the species would not be required. If Point Reyes mountain beaver is detected during focused surveys, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer of at least 50 feet would be established around the occupied habitat, the size of the buffer may be modified by the qualified RPF or biologist to extend beyond 50 feet if needed to avoid impacts to the species. No treatment activities would occur within this buffer, unless it is determined by a qualified RPF or biologist that the habitat is no longer occupied.

Habitat function for Point Reyes mountain beaver would be maintained because consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4, treatment activities that may occur within wetlands or within a 100 foot buffer would be limited to those that restore ecological benefits to the wetland. In addition, treatments are not proposed to occur within chaparral habitats. Furthermore, the no-disturbance buffer of occupied habitat, required under Mitigation Measure BIO-2b if the species is detected, would maintain occupied habitat for this species. Treatments would therefore not contribute to the further reduction of habitat for the species that occurred during the Vision and Woodward fires (NPS n.d.), and by reducing the fuel loads in areas adjacent to occupied habitat, may reduce the likelihood of wildfire and additional impacts on the species. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

American Badger

American badger (*Taxidea taxus*), while not documented to occur within the Project area, has been documented to occur in the Tomales Bay region, and grasslands, woodlands, and scrub habitats throughout the Project area provide habitat for the species.

Prescribed burning, manual treatments, mechanical treatments, and prescribed herbivory in grassland, scrub habitats and open woodland could result in disturbance of maternity dens, and potential loss of adults or young through direct mortality, den destruction, or interruption of feeding of young if these activities are conducted during the maternity season (February 15 through July 1). Herbicide application would not result in adverse effects on American badger dens, because personnel implementing these treatments would conduct activities on foot, and the likelihood of a den being inadvertently crushed or otherwise destroyed would be very low. Additionally, herbicide application is not likely to occur continuously in the vicinity of a burrow resulting in a substantial interruption of feeding. In addition, injury or mortality from the potential exposure to herbicides would be avoided or minimized by the implementation of SPR HAZ-5, HAZ-6, and HYD-5, which require spill response plans, compliance with regulations related to herbicide application, and limitations on herbicide application under certain environmental conditions (e.g., winds over 7 miles per hour). While the likelihood of a badger den being crushed by livestock would be low due to the size and depth of the burrows, the density of goats and sheep used for prescribed herbivory and the presence of humans could result in interruption of feeding and potential loss of young during the American badger maternity season (February 15 through July 1). The potential for treatment activities to result in adverse effects on American badger was examined in the Program EIR.

Per SPR BIO-1, if it is determined that adverse effects on American badger can be clearly avoided by conducting treatments outside of the season of sensitivity or physically avoiding habitat for these species, then mitigation would not be required. However, if prescribed burning, manual treatments, mechanical treatments, or prescribed herbivory treatments are conducted during the maternity season (February 15 through July 1), SPR BIO-10 would be applied prior to implementing these treatment activities. Under SPR BIO-10, focused surveys would be conducted for American badger dens within habitat suitable for the species (i.e., grasslands, scrub, open woodland) by a qualified RPF or biologist. If American badger dens are not detected during focused surveys, then further mitigation for the

species would not be required. If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer would be established around the den, the size of which would be determined by the qualified RPF or biologist, and no treatment activities would occur within this buffer.

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

Special-Status Bats

Habitat potentially suitable for three special-status bat species—pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus blossevillii*)—are present within forest habitat, rocky areas, and human-made structures (e.g., outbuildings) in the Project area. Furthermore, pallid bat has been documented to occur within the Project area (CNDDB 2022). While rocky areas and outbuildings would not be targeted for treatment activities and live trees larger than 12 inches DBH would generally not be removed, the limbing of trees and the removal of larger diameter trees and snags may result in disturbance of roosting special-status bats. Per SPR BIO-1, if it is determined that adverse effects on special-status bats can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., maternity season), then mitigation would not be required. Adverse effects on special-status bat maternity roosts would be clearly avoided by conducting initial and maintenance treatments outside of the bat maternity season (April 1 through August 31) (Caltrans 2004).

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

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

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

Habitat function for special-status bats would be maintained because treatment activities and maintenance treatments would retain high vigor Bishop pine, tanoak, oaks, and madrone trees, generally greater than 10 inches DBH and one to three snags per acre, which would be the most likely features to be used by these species. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

Conclusion

The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the Program EIR. This Project's impact is within the scope of the Program EIR, because the proposed treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential

impact on special-status wildlife species is also the same, as described above. Biological resource SPRs that apply to Project impacts under Impact BIO-2 are SPRs AD-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-8, BIO-10, BIO-11, HAZ-5, HAZ-6, HYD-1, HYD-3, HYD-4, and HYD-5. Mitigation Measures BIO-2a, BIO-2b, BIO-2e, BIO-3a, and BIO-4 also apply to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-3

Initial treatments and maintenance treatments could result in direct or indirect adverse effects on sensitive habitats, including riparian habitat, sensitive natural communities as defined by CDFW, and other especially valuable habitats that make up ESHA as defined by Coastal Act Section 30107.5. Potential impacts resulting from maintenance activities would be similar to those resulting from initial treatments because the same treatment activities are proposed. Additionally, prescribed herbivory would only be implemented during maintenance treatments, and would occur only within coyote brush scrub and grassland habitats. Maintenance treatment at too great a frequency could result in additional adverse effects. The potential for treatment activities, including maintenance treatments, to adversely affect sensitive habitats was examined in the Program EIR. Maintenance would be implemented with consideration for the location's vegetation type (as determined by a RPF or Biologist) and its natural fire return interval (i.e., time since last burn or treatment is greater than the average fire return interval for the habitat type). These intervals vary by vegetation type. For example, Bishop pine forest requires approximately 40 years to recover post fire (Sawyer et al. 2009).

Based on the Marin County Fine Scale Vegetation Map, aerial photos, and the reconnaissance-level survey conducted pursuant to SPR BIO-1, the following sensitive habitats (as identified in Manual of California Vegetation, and CalVTP Program EIR with a rarity rank of S1, S2, or S3) are present within the treatment area: Eastwood manzanita chaparral, Pacific reed grass meadows, gum plant patches, tanoak forest, Bishop pine-Monterey pine forest and woodland, salmonberry-wax myrtle scrub, pickleweed mats, hazelnut scrub, western Labrador tea thickets, California cordgrass marsh, and California bay forest and woodland (refer to Figure C-1a, C-1b, and C-1c in Attachment C). The sensitive natural communities and their associated rarity ranks are presented in Table 4.5-1. In addition, coast live oak woodland and forest, which is not a designated sensitive natural community (rarity rank of S4, "apparently secure"), but is a sensitive habitat pursuant to the Oak Woodlands Conservation Act and PRC Section 21083.4, is present in the Project area. All sensitive natural communities are considered to constitute ESHA under the Coastal Act because of their statewide rarity. Additionally, all riparian, oak woodland, and native grassland habitats are considered especially valuable habitats that constitute ESHA even if the specific assemblages of vegetation within them are not designated as sensitive natural communities by CDFW. The acreages of especially valuable habitats present in the project area are listed in Table 4.5-2.

Table 4.5-1 Sensitive Natural Communities Documented in the Project Area

Sensitive Natural Community[1]	Rarity Rank[2]	Acreage
Eastwood manzanita chaparral[3]	S3	22.05
Pacific reed grass meadows	S2	0.11
Gum plant patches (*Grindelia stricta* Provisional Association)	S2S3	0.01
Tanoak forest	S3.2	1.44
Bishop pine - Monterey pine forest and woodland	S3.2	915.79
Salmonberry - Wax myrtle scrub	S3	3.72
Pickleweed mats	S3	1.33
Western Labrador tea thickets	S2	1.77
Hazelnut scrub (*Corylus cornuta / Polystichum munitum* Association)	S2	12.20
California cordgrass marsh (*Spartina foliosa* Association)	S3.2	0.07
California bay forest and woodland	S3	406.69

[1] These are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable), the Associations under these Alliance level communities are presented in parenthesis when available.

[2] Older ranks, which need to be updated by CDFW, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats.

[3] Eastwood chaparral is present in the project area, but treatment is not proposed within chaparral habitat.

Source: Sawyer et al. 2009, Compiled by Ascent in 2023.

Table 4.5-2 Especially Valuable Habitats Documented in the Project Area

Especially Valuable Habitat Type	Especially Valuable Habitats[1]	Acreage
Riparian	Arroyo willow thickets	10.27
Riparian	Bigleaf maple – red alder forest and woodland	34.01
Riparian	Salmonberry- Wax myrtle scrub	3.72
Riparian	Western Labrador tea thickets	1.77
	Total Riparian	49.76
Oak Woodland and Forest	Tanoak forest	1.44
Oak Woodland and Forest	Coast Live Oak Woodland and Forest	25.71
	Total Oak Woodland and Forest	27.15
Native Grasslands	Pacific reed grass meadows	0.11
Native Grasslands	California Annual and Perennial Grasslands with potential to be classified as native	383.23
	Maximum Potential Native Grasslands[2]	383.34

[1] These habitat types are generally regarded by the Coastal Commission as especially valuable habitats; specific alliances are noted where available.

[2] The maximum potential native grasslands include the one previously mapped native grassland alliance and other grasslands that may meet the Coastal Act definition of native grasslands because they have at least 10 percent cover of native grasses and forbs.

Source: Compiled by Ascent in 2024.

During the reconnaissance-level survey, several species associated with the documented sensitive natural communities were observed, including Bishop pine, tanoak, and Marin manzanita. Not all dominant species associated with sensitive natural communities included in Table 4.5-1 were observed during the reconnaissance-level survey because not all areas of the park could be visited. Fine-scale vegetation mapping was completed in the park by the Golden Gate National Parks Conservancy in 2021 to identify sensitive natural communities in the treatment area to the alliance level pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018a); therefore, baseline vegetation mapping as required by SPR BIO-3 has been completed for habitats other than grasslands and will be verified prior to treatment implementation; additionally, 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 baseline prior to beginning the treatment project by reviewing any data updates and/or visiting the site to verify conditions, pursuant to SPR BIO-1. During the Marin Fine Scale Vegetation Map (GGNPC et al. 2021) development, all grasslands in the treatment area, other than Pacific reed grass meadows, were classified and mapped as California annual and perennial grassland, which is the macro group level of the California vegetation classification system and not a refined enough level to identify sensitive natural communities or native grasslands. Therefore, surveys pursuant to SPR BIO-3 would be implemented within areas mapped as California annual and perennial grassland, classifying vegetation to the alliance level, to determine the presence of sensitive natural communities and especially valuable habitat types (e.g., native grasslands).

As detailed in the Project description, and pursuant to the Coastal VTS, broadcast or cultural burning would be the only treatment implemented in wetland habitats, including Coastal Act wetlands. Existing information would be reviewed and additional implementation surveys would be conducted to delineate the extent of all wetlands within treatment areas prior to implementation. Where wetland or other aquatic habitats are delineated, 100-foot buffers

would be established around them (per the Coastal VTS) within which only treatment activities that would restore ecological benefits to the wetland or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs, will be allowed within the wetland protection buffer. Additionally, treatment activities other than broadcast or cultural burning would not occur within wetlands, and broadcast burning would only be implemented within the expected fire return interval for the vegetation communities present, as determined based on the seven attributes that are generally considered important to ecosystem function (Van Wagtendonk et al. 2018) and from the *Manual of California Vegetation* list of the fire regime attributes of vegetation alliances (Sawyer et al. 2009: Appendix 2, Table A2) (most current natural community data available at http://vegetation.cnps.org/). Consistent with the Coastal VTS and Mitigation Measure BIO-4, broadcast or cultural burning would only be implemented in wetlands if no special-status species are present, and habitat function will be maintained or enhanced/restored. Ecological restoration treatments would be implemented within the wetland buffer, including prescribed burning, manual, and targeted herbicide application, to remove encroaching conifers, coyote brush shrubs, and invasive plants and reduce thatch buildup in native perennial grasslands that are surrounding and intermixed with wetlands. Fire ignition and accelerants will not be used in the wetland buffers. Projects would adhere to SPR BIO-1 identifying and documenting the location of wetlands during Project surveys and planning and SPR HYD-4 limiting activities within WLPZ. Therefore, there would be no adverse impacts to sensitive natural communities or ESHA associated with wetland habitats, including Pacific reed grass meadows, gum plant patches, pickleweed mats, and California cordgrass marsh.

Riparian habitats, a sensitive habitat type, protected under California Game Code Section 1602, and consistently recognized as ESHA by the Coastal Commission, are also present in the Project area (Table 4.5-2). Some of these riparian habitats are also designated as sensitive natural communities by CDFW. Riparian vegetation types identified in the Project area through the Marin Fine Scale Vegetation Map (GGNPC et al. 2021) total approximately 49.76 acres and consist of arroyo willow thickets, salmonberry – wax myrtle scrub (also an S3 sensitive natural community), western Labrador tea thickets (also an S2 sensitive natural community), and bigleaf maple – red alder forest and woodland. Pursuant to SPR BIO-4, treatments in these riparian communities would 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. Furthermore, treatments would be limited to removal of uncharacteristic fuel loads and restoration of vegetation densities characteristic of the region.

In addition, coast live oak woodland and forest and tan oak forest totaling approximately 27.15 acres are present within the Project area, and both riparian and oak woodland communities are considered to qualify as especially valuable habitats by the Coastal Commission and therefore are ESHA (refer to Figure C-1a, C-1b, and C-1c in Attachment C). Additionally, native grasslands (i.e., grasslands with at least 10 percent cover of native grasses and forbs) may be present in areas mapped generally as California annual and perennial grassland, and these would also qualify as ESHA. Other natural communities are present in the treatment areas, and due to the presence of suitable habitat for multiple special-status species within the treatment area (e.g., see Impact BIO-2 above), the Coastal Commission confirmed that the Project area would be generally recognized as ESHA, under the definition in Coastal Act Section 30107.5. Therefore, SPR BIO-8 would be implemented, and treatments would be designed in compliance with the Coastal VTS developed in consultation with the Coastal Commission for consistency with the Coastal Act and Marin County's Local Coastal Program, see Attachment B for determination that the project is consistent with the Coastal VTS. Pursuant to SPR BIO-8, treatments would be designed to protect the habitat function of the affected ESHA, improve protected 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. In addition, within 100-feet of top of bank and within 50-feet of edge of riparian vegetation, only ecologically restorative treatments would occur in these buffers, and streams and riparian vegetation would not be degraded. Pursuant to Coastal VTS 7a, all forest health treatments implemented for this project would be designed to protect ecosystems by proactively restoring ecosystem function, restoring and maintaining vegetation cover to reflect appropriate fire frequencies and comply with standards set forth in the Manual of California Vegetation, and provide for an appropriate mosaic of native plants by age, size, and class. Coastal VTS 7b, "Protect Wetlands" would be implemented requiring all wetlands, including coastal wetlands that do not meet the federal Clean Water Act or Porter-Cologne Water Quality Control Act definition of wetlands, to be provided a 100-foot buffer within which only activities that restore ecological benefits to the wetland or maintain wetland habitat quality while restoring surrounding ecosystems would be allowed. Pursuant with Coastal VTS 7e, vegetation removal would follow a hierarchy to obtain a

vegetation cover threshold that avoids unintended habitat conversion. With the application of SPR BIO-8 and the Coastal VTS, impacts to ESHA would be minimized and no mitigation would be required.

Treatment activities are proposed within sensitive natural communities as defined by CDFW and shown in Table 4.5-1 and oak woodlands considered as ESHA pursuant to the Coastal Act. Avoiding treatment activities in these communities would preclude achieving treatment objectives of restoring forest health and improving wildfire resilience; therefore, Mitigation Measure BIO-3a would apply to treatment activities in sensitive natural communities and oak woodlands. Treatments have been designed specifically within Bishop pine – Monterey pine forest and woodland, and hardwood forest habitats (i.e., California bay forest and woodland, coast live oak woodland and forest, and tanoak forest) to restore ecological function to the existing sensitive natural communities and oak woodlands present and to improve forest health and ecosystem resilience consistent with Coastal VTS 7a and Mitigation Measure BIO-3a. A qualified RPF and CSP natural resource staff would design treatments in all sensitive natural communities and oak woodlands to ensure that the characteristics that qualify the communities as sensitive (e.g., dominant canopy species, relative percentage of dominant species, species composition, per membership rules of the Manual of California Vegetation [online version]) are retained post-treatment to the extent feasible. Under Mitigation Measure BIO-3a, a qualified RPF or biologist will determine the natural fire regime, condition class, and departure from fire return interval for each sensitive natural community and oak woodland prior to treatment. Initial and maintenance treatment activities in sensitive natural communities and oak woodlands would be designed to restore the fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function. In Bishop pine forest, the objective is to improve forest resiliency and preserve and steward Bishop pine forest by creating a mosaic of seral stages to foster continued regeneration of Bishop pine. Consistent with Coastal VTS 7c, "Protect Bishop Pine Forest," treatments within Bishop pine forest would be designed to create a mosaic of seral stage stands so all seral stages are represented in the park, limit pile burning to areas outside the driplines of mature Bishop pine trees, and limit prescribed burning to secondary treatments after other treatment activities have been applied to reduce fuel loads.

Bishop pine is a closed-cone species and is dependent on fire to open the cones allowing seed release, consume the duff and litter layers exposing mineral soil, and promote seed germination from cones in the forest canopy. This process drives regeneration and establishes a new even-aged early seral stand. In the absence of natural fire and traditional burning by Coast Miwok, there is very little Bishop pine regeneration in the late seral stands and there are no early seral stage Bishop pine forest stands in the park. Bishop pinecones are moderately serotinous and will open in the absence of fire if temperatures are hot enough to melt the resins holding the scales closed, but regeneration will occur only if bare mineral soil is available with limited competition for light, space, and nutrients (Harvey and Agne 2021). In the absence of fire or other ecological restoration treatment, Bishop pine will not regenerate, and the late seral stage stands will die without reproducing. Bishop pine forest faces numerous threats across its range including diminished water availability due to drought and changes in fog cover, fire suppression resulting in lack of regeneration that allows for long term conversion of Bishop pine dominated forest to hardwood dominated forest, and pathogens such as western gall rust (*Peridermium harknessii*) and pine pitch canker (*Fusarium circinatum*), which are present in the park and affecting Bishop pine vigor. The buildup of litter and duff, accumulation of downed woody debris, dense understory growth, and the large number of dead standing and dying trees from age senescence and pathogens has created hazardous fuel conditions that increase the potential for catastrophic wildfire in the park and threaten the long-term persistence of Bishop pine and other SNCs within the area.

Treatments are proposed in Bishop pine habitat to create a mosaic of seral stage stands that includes even aged early seral stands, promote stand regeneration, and enhance resiliency. Treatments focus on prescribed burning using primarily pile burning methods. Pile burning would be conducted adjacent to but outside the dripline of large, mature Bishop pine trees to facilitate serotinous cone opening by heat convection into the canopy. Pile burning would be conducted in a manner that would mimic some of the benefits that would result from a stand replacing fire using numerous small piles in a mosaic pattern but avoiding proximity to retained trees and vegetation. Bishop pinecones are moderately serotinous and temperatures between 176 and 266 degrees F generally cause at least 50 percent of cone scales to open; however, at higher temperatures than these, no additional scales open (Harvey and Agne 2021). Seed germination has been shown to be 80 percent successful at temperatures up to about 200 degrees, but seeds cannot survive exposure to temperatures above 257 degrees F, and therefore would be added to the end of the pile burning to limit heat exposure to safe levels. Cones would be added at the end of the pile burning process when they would be

exposed to temperatures from 185 degrees F to 200 degrees F for short periods or opened in an oven and spread in the treatment area after the piles have been consumed. Cones may also be opened in an oven then later spread over the treatment area to release seeds on bare mineral soils conducive to successful establishment. Shrubs and hardwood trees up to 10 inches DBH and encroaching Douglas fir within 30 feet of Bishop pine trees would also be removed to reduce seed competition, shading, and ladder fuels. These treatments have been specifically designed to improve habitat function and improve the health and resiliency of Bishop pine forests in Tomales Bay SP.

Broadcast burning intended to mimic stand replacing fire is not feasible in Bishop pine forest in the park due to the risk of high severity crown fires and the proximity of local communities. However, limited broadcast burning may be possible in small areas that have had significant pre-treatment using manual, mechanical and/or pile burning, to reduce fuels, for the purpose of promoting regeneration of Bishop pines in select areas to more closely mimic the regeneration and seedling density conditions that could occur from natural fire. Limited broadcast burning in Bishop pine forest would be evaluated in consultation with Marin County Fire, and only considered in select locations where there is road access, a significant setback distance from neighboring communities, where there are few surviving standing pine trees, and under specific weather and topographic conditions. Understory vegetation that proliferates in Bishop pine habitat following initial treatments may be selectively thinned or removed to promote successful regeneration of Bishop pine.

California Bay forest and woodlands within Tomales Bay SP are declining due to the absence of fire and the presence of the pathogen Phytophthora ramorum, which causes sudden oak death disease that results in mortality in tanoak and coast live oak. California bay laurel and coast live oak are the most common tree species in this woodland type, but madrone and tanoak are also present, though much of the tanoak is dead or dying from sudden oak death. Tanoaks are an important component of the California Bay forest and woodlands in the park and have "provided Coast Miwok people with sustenance for thousands of years" (Nelson and GGNPC 2023). A very dense understory is present in many of the hardwood stands where shrub growth has been facilitated by canopy openings from the loss of tanoaks and coast live oaks. The accumulation of downed woody material, the dense shrub understory, and the significant duff and litter layers has resulted in very little hardwood regeneration in some locations and has created a higher density of fuels in the understory.

Treatments are proposed in California Bay forest and woodlands to promote and enhance hardwood forest regeneration and resilience. Treatment within California Bay forest and woodlands would selectively remove shrubs, hardwood trees up to 10 inches DBH, and encroaching Douglas fir to reduce fuels and promote hardwood regeneration to a density that is characteristic of healthy stands of the vegetation alliance. Prescribed burn treatments would be used in hardwood dominated forests to promote forest health and native flora, improve resilience, and reduce biomass and fuels. These treatments have been specifically designed to improve habitat function and the health and resiliency of California Bay forest and woodlands in Tomales Bay SP.

Because habitat function of sensitive natural communities or oak woodlands would be improved or maintained through implementation of Coastal VTS 7a, 7b, 7c, and 7e, and Mitigation Measure BIO-3a, Mitigation Measure BIO-3b would not apply, and no compensatory mitigation would be required because there would be no unavoidable losses of these resources.

Conclusion

The potential for treatment activities to result in adverse effects on sensitive habitats, including designated sensitive natural communities, riparian habitats, oak woodlands, and ESHA, as described above, was examined in the Program EIR. This impact on sensitive habitats is within the scope of the Program EIR, because the treatment activities and intensity of disturbance from implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on riparian habitat and sensitive natural communities is also the same, as described above. Biological resource SPRs that apply to Project impacts under Impact BIO-3 are SPRs AD-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-6, BIO-8, BIO-9, HYD-4, and HYD-5. Coastal VTS 7a, 7b, 7c, and 7e apply to Project impacts under BIO-3 in addition to the CalVTP SPRs and mitigation measures to support California Coastal Act

compliance and consistency with the Public Works Plan. The biological resource mitigation measure that applies to Project impacts under Impact BIO-3 is Mitigation Measure BIO-3a. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant Impact than what was covered in the Program EIR.

IMPACT BIO-4

Initial treatments and maintenance treatments could result in direct or indirect adverse effects on state or federally protected wetlands, or coastal wetlands as defined under the Coastal Act. Potential impacts resulting from maintenance activities would be similar to those resulting from initial treatments because the same treatment activities are proposed. Additionally, prescribed herbivory would only be implemented during maintenance treatments; however, prescribed herbivory would not be allowed within wetlands pursuant to SPR HYD-3. The potential for treatment activities to result in adverse effects on state or federally protected wetlands was examined in the Program EIR.

Aquatic habitats that have been identified and mapped in the Project area by Bay Area Aquatic Resource Inventory (BAARI) consist of slope and seep wetlands, freshwater ponds, estuarine ponds, estuarine subtidal water, tidal marsh, tidal flats and marsh panne, and perennial and intermittent streams (Class I and Class II). Fine-scale vegetation mapping was completed in the park by the Golden Gate National Parks Conservancy in 2021 to identify sensitive natural communities in the treatment area to the alliance level pursuant to Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018a). Wetland vegetation communities found in the Project area during the Marin fine-scale vegetation mapping consist of gum plant patches, salt grass flats, pickleweed mats, California cordgrass marsh, and Vancouverian freshwater wet meadow and marsh group (Table 4.5-3; Attachment C). Additional wetlands may be present throughout the Project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps; therefore, the project proponent will verify the continued accuracy of the PSA baseline prior to beginning the treatment project by reviewing any data updates and/or visiting the site to verify vegetation communities and conditions, pursuant to SPR BIO-1. Surveys pursuant to SPR BIO-3 would be implemented within areas that have not been classified to the alliance level, or where conditions have changed since alliance-level mapping was completed, to determine the presence of especially valuable habitat types (e.g., native grasslands) prior to treatment.

Table 4.5-3 Wetlands and Other Waters Documented in the Project Area

Wetlands and Other Waters	Acreage
California cordgrass marsh (Spartina foliosa Association)	0.07
Gum plant patches (Grindelia stricta Provisional Association)	0.01
Pickleweed mats	1.33
Vancouverian freshwater wet meadow and marsh	0.00
Salt grass flats	2.00
Freshwater wet meadow and marsh	4.33
Freshwater Marsh	0.02
Slope and seep wetland	30.52
Freshwater pond	1.51
Estuarine pond	0.59
Estuarine subtidal water	10.70
Tidal marsh	46.11
Marsh panne	37.58
Perennial and intermittent streams[1]	NA
Total	134.76

[1] There are no acres calculated for these linear features.

Source: Compiled by Ascent in 2024.

Consistent with the requirements of the Coastal VTS 7b, "Protect Wetlands," and pursuant to Mitigation Measure BIO-4, a qualified RPF or biologist would identify the boundaries of all wetlands in the treatment area; establish a 100-foot buffer around the wetlands; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). Only treatment activities that would restore ecological benefits to the wetland or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs, will be allowed within the wetland buffer. No fire ignition (including the associated use of accelerants) will occur within wetland buffers. A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-status wildlife (e.g., North Coast semaphore grass, California red-legged frog, and western pond turtle; see Impact BIO-1 and Impact BIO-2). Larger buffers (i.e., 150-foot WLPZ) are required for Class 1 waters on slopes greater than 50 percent. Treatments within wetland boundaries would be limited to broadcast or cultural burning and only where no special-status species are present and where habitat function in the wetland would be maintained or enhanced/restored. Ecological restoration treatments would be implemented within the wetland buffer, including prescribed burning, manual treatment, and targeted herbicide application, to remove encroaching conifers, coyote brush shrubs, and invasive plants and reduce thatch buildup in native perennial grasslands that are surrounding and intermixed with wetlands. Only hand containment lines for prescribed burns will be installed within the 100-foot wetland buffers and these hand containment lines will be installed a minimum of 50 feet from any wetland unless avoidance of 50 feet would make broadcast burning for ecological restoration infeasible due to widespread distribution of Juncus patch wetlands, in which case, buffer encroachment shall be limited to the maximum extent feasible while allowing for necessary burn implementation.

A WLPZ of 50 to 150 feet adjacent to all Class I (i.e., perennial/relatively permanent) and Class II (i.e., intermittent/relatively permanent) streams would be implemented, and WLPZs of sufficient size to avoid degradation of downstream beneficial uses of water would be established adjacent to all Class III (i.e., ephemeral) and Class IV (i.e., human-created) watercourses within the Project area per SPR HYD-4. Establishment of WLPZs and 100-foot wetland protection buffers (consistent with the Coastal VTS and pursuant to Mitigation Measure BIO-4) would result in impact avoidance for wetland, stream, and other aquatic habitats during all treatment activities.

In addition, pursuant to SPR HYD-5, only herbicides labeled for use in aquatic environments would be used when working in areas where there is a possibility the herbicide could come into direct contact with water. Hand application of herbicides would occur only during low-flow periods or when seasonal streams are dry.

Conclusion

The potential for treatment activities to adversely affect state or federally protected wetlands was examined in the Program EIR. This impact on wetlands is within the scope of the Program EIR, because the treatment activities and intensity of disturbance from implementing treatment activities would be consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on wetlands is also the same, as described above. Biological resource SPRs that apply to Project impacts under Impact BIO-4 are SPRs AD-1, BIO-1, HYD-1, HYD-3, and HYD-4. Coastal VTS 7b, "Protect Wetlands," in addition to the CalVTP SPRs and mitigation measures, support California Coastal Act compliance and consistency with the Public Works Plan. The biological resource mitigation measure that applies to Project impacts under Impact BIO-4 is Mitigation Measure BIO-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-5

Initial and maintenance treatments could result in direct or indirect adverse effects on wildlife movement corridors and nurseries. Potential impacts resulting from maintenance activities would be similar to those resulting from initial treatments because with the exception of prescribed herbivory the same treatment activities are proposed. The

potential for treatment activities to result in adverse effects on wildlife movement corridors and nurseries was examined in the Program EIR.

Based on review and survey of Project-specific biological resources (SPR BIO-1), the southern portion of the Project area and the portion east of SR 1 are located within mapped regional connectivity linkages that connect natural habitats on the Point Reyes Peninsula (Bay Area Open Space Council 2019).

Temporary impacts to wildlife movement would occur during treatment activities due to wildlife avoiding active treatment areas due to human disturbance and noise. In addition, prescribed herbivory maintenance treatments would include the use of temporary fencing. The total fencing deployed at any one time for prescribed herbivory would not exceed 5,280 feet (1 mile), the perimeter of 40 acres. Pursuant to SPR BIO-11, this fencing would be installed to allow wildlife to pass over or under easily without injury, and subject to other requirements that reduce impacts to wildlife. The temporary impacts to wildlife movement would not be substantial because they would be limited in duration and scope, allowing other portions of the Project area to be used for wildlife movement while treatments are occurring.

Ecological restoration treatments would protect and improve forest regeneration and resiliency, create a dynamic mosaic of vegetation types and age classes in the park, and reduce fuels. These treatments would reduce shrub cover and down woody debris within the treatment area, would remove encroaching Douglas fir trees and snags within Bishop pine forests, and would remove encroaching conifers from hardwood forests. While canopy openings would be created, these are not anticipated to result in conversion of any vegetation type to another type or community or result in forest openings that would be large enough to substantially interfere with wildlife movement.

Treatment activities within riparian habitat would be subject to SPR BIO-4, which requires retention of at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation that would likely function as a wildlife movement corridor. Pursuant to SPRs BIO-3 and BIO-4, treatments in sensitive natural communities and riparian habitat would be designed to maintain habitat function of these communities. With implementation of SPRs, habitat function within the Project area would be maintained and there would not be a substantial change in the existing conditions that facilitate wildlife movement or provide nursery habitat in the Project area.

If during surveys conducted pursuant to SPR BIO-10, wildlife nursery sites (e.g., deer fawning areas, bat maternity roosts, shorebird rookeries) are detected, Mitigation Measure BIO-5 would apply to all treatment activities and a no-disturbance buffer would be established around these features, the size of which would be determined by a qualified biologist or RPF (for discussion of monarch overwintering sites see Impact BIO-2).

The potential for treatment activities to result in adverse effects on wildlife movement corridors and nurseries was examined in the Program EIR. This impact is within the scope of the Program EIR because the treatment activities and extent of expected disturbance as a result of implementing treatment activities are consistent with those analyzed in the Program EIR. The inclusion of land in the Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, because the existing environmental conditions outside the treatable landscape in the Project area are essentially the same as those within the treatable landscape, as described above, the potential impact on wildlife movement corridors is also the same. Biological resource SPRs that apply to Project impacts under Impact BIO-5 are SPRs AD-1, BIO-1, BIO-4, BIO-10, BIO-11, HYD-1, and HYD-4. The biological resource mitigation measure that applies to Project impacts under Impact BIO-5 is Mitigation Measure BIO-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-6

Initial and maintenance treatments could result in direct or indirect adverse effects resulting in a reduction in the abundance of common wildlife, including nesting birds, because habitat suitable for these species is present throughout the treatment areas. Treatment activities, including mechanical treatments, manual treatments, prescribed burning, herbicide application, and prescribed herbivory conducted during the nesting bird season (February 1 through August 31) could result in direct loss of active nests or disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chain saws, vehicles, personnel) potentially resulting in abandonment and loss of

eggs or chicks. The potential for treatment activities, including maintenance treatments, to result in adverse effects on these resources was examined in the Program EIR.

SPR BIO-12 would apply to the Project, and for treatments implemented during the nesting bird season, a survey for common nesting birds would be conducted within the treatment area by a qualified RPF or biologist prior to treatment activities. If no active bird nests are observed during focused surveys, then additional avoidance measures would not be required. If active nests of common birds or raptors are observed during focused surveys, disturbance to the nests would be avoided by establishing an appropriate buffer around the nests, modifying treatments to avoid disturbance to the nests, or deferring treatment until the nests are no longer active as determined by a qualified RPF, biologist, or biological technician. Standard nest buffers would be 50-300 feet for non-raptors and 500 feet for raptors. Buffers may be modified by a qualified biologist based on rationale such as species sensitivity, vegetative cover, nest height, and topography that would attenuate noise and visual disturbance.

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

IMPACT BIO-7

The proposed Project would occur within the Coastal Zone of Marin County; as such, the Project must comply with the provisions of the Coastal Act and relevant LCP. In collaboration with multiple agencies, CSP developed, and the Coastal Commission approved, a PWP as a companion to the CalVTP to provide design standards for projects in the Coastal Zone and compliance with the LCP. The Project would be implemented in compliance with the PWP and would therefore not result in a conflict with the LCP. The potential for the proposed treatments to conflict with local policies was examined in the Program EIR and is within the scope of the Program EIR because treatment locations, types, and activities are consistent with those analyzed in the Program EIR. In addition, CSP as a state agency is not subject to local policies, plans, and ordinances, and therefore, the Project would not conflict with any local policies, plans, and ordinances, because none apply. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the Project area boundary, the existing regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential for conflicts with local policies or ordinances is also the same, as described above. The biological resource SPRs that apply to Project impacts under Impact BIO-7 are SPRs AD-1 and AD-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT BIO-8

Implementation of the initial and maintenance treatments would not result in a conflict with adopted habitat conservation plans (HCP) or natural community conservation plans (NCCP), because the Project area is not within the plan area of any adopted HCP or NCCP.

NEW BIOLOGICAL RESOURCE IMPACTS

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

4.6 GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

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

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

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

Discussion

Tomales Bay SP is located in the central Coast Range Geomorphic Province that extends 600 miles along the California coast from the Klamath Mountains in the north, south to the Transverse Ranges, and east to the Central Valley. This province is characterized by northwest-trending ranges and valleys subparallel to the San Andreas Fault Zone (SAFZ). Bedrock on the east side of the SAFZ consists of the 80- to 140-million-year-old Franciscan Formation, a heterogeneous assemblage of clay-rich greywacke sandstone, shale, chert, and greenstone (metamorphosed volcanic rock). Isolated outcrops of the late Pleistocene Millerton Formation occur overlying the Franciscan Rocks. On the western side of the SAFZ, bedrock consists of Upper Cretaceous granitic and older metamorphic rocks of the Salinian Block that form the backbone of Inverness Ridge. On both sides of the SAFZ, younger alluvial sediments occur along stream channels and beaches (CSP 2004a). Starting approximately 28 million years ago, movement on the SAFZ of approximately 1.0 to 0.5 inch/year transported these rocks to their present location. The rocks continue to move northward at the same rate (CSP 2004a).

IMPACT GEO-1

Treatments would consist of ecological restoration through use of prescribed burning, mechanical treatment, manual treatment, targeted ground application of herbicides, and prescribed herbivory in limited areas for maintenance treatments. These activities could result in varying levels of soil disturbance and have the potential to increase the rates of erosion and loss of topsoil. The potential for these treatment activities to cause substantial erosion or loss of topsoil was examined in the Program EIR. Mechanical treatments using heavy machinery are the most likely to cause soil disturbance that could lead to substantial erosion or loss of topsoil, especially in areas that contain steep slopes, or in areas that previously experienced fire. This impact is within the scope of the Program EIR because the use and type of equipment, extent of vegetation removal, and intensity of prescribed burning are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the soil characteristics are essentially the same within and outside the CalVTP treatable landscape and therefore, the potential impact related to soil erosion is also the same, as described above.

CSP proposes to revise requirements under SPR AQ-3 for broadcast burning activities to allow for the use of non-CAL FIRE burn plan templates (i.e., CSP Burn Plan Template), which would be a change to the project analyzed in the Program EIR. Burn plans prepared by CSP would include elements that would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3. For this reason, proposed revisions to SPR AQ-3 would not result in greater soil erosion and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more severe significant effect related to soil erosion than what was covered in the Program EIR.

SPRs applicable to this impact are AD-3, AQ-3, AQ-4, GEO-1 through GEO-8, HYD-3, and HYD-4. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT GEO-2

Treatment activities would consist of prescribed burning, mechanical treatment, manual treatment, targeted use of herbicides, and prescribed herbivory in limited areas for maintenance treatments. Various areas with known landslide activity are identified within the Project area by USGS (USGS 2023). As such, landslides have potential to occur within the Project area. The potential for treatment activities to increase landslide risk was examined in the Program EIR. This impact is within the scope of the Program EIR because the extent of vegetation removal, intensity of prescribed burning, and characteristics of the geographical terrain are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the range of slopes and landslide conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape. Therefore, the potential impact related to landslide risk is also the same, as described above.

CSP proposes to revise requirements under SPR AQ-3 for broadcast burning activities to allow for the use of non-CAL FIRE burn plan templates (i.e., CSP Burn Plan Template), which would be a change to the project analyzed in the Program EIR. Burn plans prepared by CSP would include elements that would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3. For this reason, proposed revisions to SPR AQ-3 would not result in an increased risk of landslide by removing root systems that stabilize slopes, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more severe significant effect related to landslide risk than what was covered in the Program EIR.

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

NEW GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatment Project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.7.1, "Environmental Setting," and Section 3.7.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed Project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental and regulatory conditions pertinent to geology and soils that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment Project are also consistent with those covered in the Program EIR. Revisions to SPR AQ-3 would constitute a change to the project analyzed in the Program EIR. Revisions to SPR AQ-3 would allow for the use of non-CAL FIRE burn plan templates (i.e., CSP Burn Plan Template). The CSP Burn Plan Template would include elements that would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3 and analyzed in the Program EIR; therefore, revisions to SPR AQ-3 would not result in a new impact that was not covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPR AQ-3 would not give rise to any new significant impacts. Therefore, no new impact related to geology, soils, paleontology, or mineral resources would occur that is not covered in the Program EIR.

4.7 GREENHOUSE GAS EMISSIONS

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	**Identify Impact Significance in the Program EIR**	**Identify Location of Impact Analysis in the Program EIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project**	**List MMs Applicable to the Treatment Project**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?**	**Is This Impact within the Scope of the Program EIR?**
Would the project:								
Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs	LTS	Impact GHG-1, pp. 3.8-10 – 3.8-11	Yes	AD-3	NA	LTS	No	Yes
Impact GHG-2: Generate GHG Emissions through Treatment Activities	PSU	Impact GHG-2, pp. 3.8-11 – 3.8-17	Yes	AD-3 AQ-3	GHG-2	PSU	No	Yes

Notes: LTS = less than significant; PSU = potentially significant and unavoidable; None = there are SPRs and/or MMs identified in the Program EIR for this impact, but none are applicable to the treatment project.

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

Discussion

IMPACT GHG-1

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in greenhouse gas (GHG) emissions. Consistency of treatments under the CalVTP with applicable plans, policies, and regulations aimed at reducing GHG emissions was examined in the Program EIR. Consistent with the Program EIR, although GHG emissions would occur from equipment and vehicles used to implement treatments, the purpose of the proposed Project is to reduce wildfire risk, which could reduce GHG emissions and increase carbon sequestration over the long term. This impact is within the scope of the Program EIR because the proposed activities, as well as the associated equipment, duration of use, and resultant GHG emissions, are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the same plans, policies, and regulations adopted to reduce GHG emissions apply in the areas outside the treatable landscape, as well as areas within the treatable landscape; therefore, the GHG impact is also the same, as described above. SPR AD-3 is applicable to this impact. SPR GHG-1 is not applicable to the proposed Project because this Project is not a registered offset project under the Board's Assembly Bill 1504 Carbon Inventory Process. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT GHG-2

Use of vehicles and mechanical equipment and prescribed burning during initial and maintenance treatments would result in GHG emissions. The potential for treatments under the CalVTP to generate GHG emissions was examined in the Program EIR and was found to be potentially significant and unavoidable after the application of all feasible mitigation measures because of the infeasibility of implementing specific emission reduction techniques and the uncertainties associated with all the parameters and objectives of prescribed burning. Mitigation Measure GHG-2 requires implementing entities to implement feasible methods to reduce the GHG emissions from prescribed burning, including pile burning. Accordingly, the use of air curtain burners is proposed. The essential function of this technology is to reduce smoke, and resultant GHG emissions, compared to pile burning, by consuming biomass quickly and efficiently. According to a 2020 study of biomass, air curtain burners emit 54 percent less CO_2 emissions compared to pile burning (Puettmann et. al. 2020 as cited in Ascent 2022).

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

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the climate conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the GHG impact is also the same, as described above.

CSP proposes to revise requirements under SPR AQ-3 for broadcast burning activities to allow for the use of the CSP Burn Plan Template, which would be a change to the project analyzed in the Program EIR. Burn plans prepared by CSP would meet the same standards as required for CAL FIRE burn plans. For this reason, proposed revisions to SPR AQ-3 would not result in greater generation of GHG emissions, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more severe significant effect from GHG emissions than what was covered in the Program EIR.

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

NEW IMPACTS RELATED TO GHG EMISSIONS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP Program EIR (refer to Section 3.8.1, "Regulatory Setting," and Section 3.8.2, "Environmental Setting," in Volume II of the Final Program EIR). Including land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental conditions pertinent to the climate conditions that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment Project are also consistent with those covered in the Program EIR. Revisions to SPR AQ-3 would constitute a change to the project analyzed in the Program EIR. Revisions to SPR AQ-3 would allow for the use of non-CAL FIRE burn plan templates. The CSP Burn Plan Template requires the same standards for air quality as the CAL FIRE template, which was considered in the Program EIR; therefore, revisions to SPR AQ-3 would not result in a new impact that was not covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPR AQ-3 would not give rise to any new significant impacts. Therefore, no new impact related to GHG emissions would occur.

4.8 ENERGY RESOURCES

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

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

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

Discussion

IMPACT ENG-1

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

NEW ENERGY RESOURCE IMPACTS

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

4.9 HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

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

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

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

Discussion

IMPACT HAZ-1

Initial treatments would consist of manual treatments, mechanical treatments, prescribed burning, targeted ground application of herbicides, and prescribed herbivory in limited areas for maintenance treatments. These treatment activities would require the use of fuels and related accelerants, which are hazardous materials. The potential for treatment activities to cause a significant health hazard from the use of hazardous materials was examined in the Program EIR. This impact is within the scope of the Program EIR because the types of treatments and associated equipment and types of hazardous materials that would be used are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the exposure potential and regulatory conditions are essentially the same within and outside the treatable landscape; therefore, the hazardous material impact is also the same, as described above. SPR AD-3, HAZ-1 through HAZ-4, and HYD-4 are applicable to this

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

IMPACT HAZ-2

Initial and maintenance treatments would include targeted ground-based herbicide application methods including cut-stump, basal-bark, and foliar spray, using manual application equipment. No aerial spraying of herbicides would occur. The potential for treatment activities to cause a significant health hazard from use of herbicides was examined in the Program EIR. This impact is within the scope of the Program EIR because the herbicides (i.e., Clopyralid, Glyphosate, Imazapyr, and Triclopyr) and application methods that would be used are consistent with those analyzed in the Program EIR. In addition, herbicides would be applied by licensed applicators in compliance with all laws, regulations, and herbicide label instructions, consistent with herbicide use described in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the hazardous materials impact is also the same, as described above. SPRs AD-3 and HAZ-2 through HAZ-9 are applicable to this treatment. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HAZ-3

Initial and maintenance treatments would include soil disturbance and prescribed burning, which could expose workers, the public, or the environment to hazardous materials if a contaminated site is present within the Project area. The potential for workers participating in treatment activities to encounter contamination that could expose them, the public, or the environment to hazardous materials was examined in the Program EIR. This impact was identified as potentially significant in the Program EIR because hazardous materials sites could be present within treatment sites throughout the large geographic extent of the treatable landscape, and the feasibility of implementing mitigation for exposure of people or the environment to hazards resulting from soil disturbance or burning in a hazardous materials site was uncertain.

As directed by Mitigation Measure HAZ-3, database searches for hazardous materials sites within the Project area have been conducted. No hazardous materials sites were identified within 0.25 mile of any of the treatment areas (CalEPA 2023; DTSC 2023; SWRCB 2023). Therefore, after implementation of Mitigation Measure HAZ-3, which did not identify any sites, this impact would be less than significant. This impact is within the scope of the Program EIR because the types of treatments and associated equipment that could potentially expose workers or the environment to hazardous materials are consistent with those analyzed in the Program EIR. The inclusion of land in the Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the potential to encounter hazardous materials and the regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the hazardous materials impact is also the same, as described above. SPR AD-3 and HAZ-2 through HAZ-4 are applicable to this impact, and no additional mitigation is required. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.10.1, "Environmental Setting," and Section 3.10.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed treatment areas

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

4.10 HYDROLOGY AND WATER QUALITY

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

Environmental Impact Covered in the Program EIR	Identify Impact Significance in the Program EIR	Identify Location of Impact Analysis in the Program EIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project	List MMs Applicable to the Treatment Project	Identify Impact Significance for Treatment Project	Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?	Is This Impact within the Scope of the Program EIR?
the Ground Application of Herbicides								
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5, p. 3.11-31	Yes	AD-3 GEO-5 HYD-2 HYD-4 HYD-6	NA	LTS	No	Yes

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

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

Discussion

The proposed Project is located within the Tomales Bay watershed, which encompasses approximately 219 square miles of rugged terrain. From the peaks of Mount Tamalpais and Bolinas Ridge, the watershed extends east to the headwaters of Walker Creek, Nicasio Creek, Lagunitas Creek, and west to the Inverness Ridge. Tomales Bay opens to the Pacific Ocean at the northern end just south of Bodega Bay and extends 12 miles to the southeast along the SAFZ. The bay's linear shape and narrow mouth limits tidal exchange with the ocean, and so there tends to be a fluctuation between fresh water in the rainy winter months and hypersaline during the dry summer months (CSP 2004a).

The Heart's Desire Area has four perennial unnamed streams. The headwaters originate along the ridge near Pierce Point Road and drain into Tomales Bay at various points including Indian Beach, Heart's Desire Beach, Pebble Beach, Shallow Beach (privately owned), and Shell Beach. The Inverness Area has a number of unnamed ephemeral and permanent streams. These streams have their headwaters at the top of Inverness Ridge and drain into Tomales Bay, thus causing the steep terrain portions of these drainages to be susceptible to flash storm events. The Millerton Area has several small drainages and three larger streams. Tomales Bay SP includes a portion of Millerton Creek from above SR 1 to the Tomales Bay outflow where it forms a saltmarsh estuary. Historically, there have been water quality issues for this stream due to elevated E. coli bacterial levels. Presumably this is related to upstream land uses including cattle grazing, an open rock quarry, and the Borello Sewage Ponds (CSP 2004a).

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

IMPACT HYD-1

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

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also the same, as described above. SPRs applicable to this impact are AD-3, AQ-3, HYD-2, HYD-4, BIO-4, BIO-5, GEO-4, and GEO-6. As explained above, impacts on water quality resulting from the proposed Project would not constitute a new or substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-2

Initial treatments would include mechanical and manual treatment activities. Although most treatment areas would avoid streams and watercourses, WLPZs ranging from 50 to 150 feet will be implemented for any watercourses that are within treatment areas pursuant to SPR HYD-4. The potential for mechanical and manual treatment activities to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of heavy equipment and hand-held tools to remove vegetation and associated impacts to water quality are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from manual and mechanical treatments is also the same, as described above. SPRs applicable to this impact are AD-3, HYD-1, HYD-2, HYD-4, HYD-5, GEO-1 through GEO-5, GEO-7, GEO-8, BIO-1, HAZ-1, and HAZ-5. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-3

Maintenance treatments have the potential to include prescribed herbivory. The potential for prescribed herbivory to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of grazing animals (e.g., goats, sheep) and the grazing intensity to manage and remove vegetation are consistent with those analyzed in the Program EIR. Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas would be identified and excluded from prescribed herbivory using temporary fencing or active herding; a buffer of approximately 50 feet would be maintained between sensitive and actively grazed areas as required by SPR HYD-3. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed herbivory treatments is also the same, as described above. SPRs applicable to this treatment are AD-3, HYD-2, and HYD-3. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-4

Initial and maintenance treatments would include targeted application of herbicides to maintain native species composition and to prevent the growth and spread of invasive species within the treatment areas when other treatment methods are not effective, feasible, or would result in greater potential impacts. Herbicide treatment would occur on less than 6 acres across the total treatment area in targeted and discrete locations. Targeted herbicide application would be limited to ground-based methods, such as cut-stump, basal-bark, and foliar spray, using manual application equipment. All herbicide application would comply with EPA and California Department of Pesticide Regulation label standards. The potential for the use of herbicides to violate water quality regulations or degrade water quality was examined in the Program EIR. This impact is within the scope of the Program EIR because the use of herbicides to remove vegetation and associated impacts to water quality are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from use of herbicides is also the same, as described above. SPRs applicable to this impact are AD-3, HYD-2, HYD-5, BIO-4, HAZ-5, and HAZ-7. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT HYD-5

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. The potential for treatment activities to substantially alter the existing drainage pattern of a project site was examined in the Program EIR. This impact to site drainage is within the scope of the Program EIR because the types of treatments and treatment intensity are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the impact related to alteration of site drainage patterns is also the same, as described above. SPRs applicable to this impact are AD-3, GEO-5, HYD-2, HYD-4, and HYD-6. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW HYDROLOGY AND WATER QUALITY IMPACTS

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

4.11 LAND USE AND PLANNING, POPULATION AND HOUSING

Impact in the Program EIR			Project-Specific Checklist					
Environmental Impact Covered in the Program EIR	**Identify Impact Significance in the Program EIR**	**Identify Location of Impact Analysis in the Program EIR**	**Does the Impact Apply to the Treatment Project?**	**List SPRs Applicable to the Treatment Project**	**List MMs Applicable to the Treatment Project**	**Identify Impact Significance for Treatment Project**	**Would This Be a Substantially More Severe Significant Impact than Identified in the Program EIR?**	**Is This Impact within the Scope of the Program EIR?**
Would the project:								
Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation	LTS	Impact LU-1, pp. 3.12-13 – 3.12-14	Yes	AD-3 AD-9	NA	LTS	No	Yes
Impact LU-2: Induce Substantial Unplanned Population Growth	LTS	Impact LU-2, pp. 3.12-14 – 3.12-15	Yes	NA	NA	LTS	No	Yes

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

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

Discussion

IMPACT LU-1

The Project area is within Marin County and within the Coastal Zone, as defined by the California Coastal Act. The potential for treatment activities to cause a significant impact due to a conflict with a land use plan, policy, or regulation was examined in the Program EIR. As noted below in Section 4.12, "Noise," treatment activities would take place during daytime hours consistent with the Marin County's Noise Ordinance. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, all other treatment activities using equipment would typically be limited to 7:00 a.m. and 6:00 p.m., Monday through Friday, 9:00 a.m. and 5:00 p.m. on Saturdays. Limiting treatment activities to these hours would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. In addition, CSP would comply with the Coastal Act through the existing Tomales Bay State Park Forest Health and Wildfire Resilience PWP; the treatment design and this PSA/Addendum are consistent with the requirements of the PWP. The potential for treatment activities to cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation was examined in the Program EIR. This impact is within the scope of the Program EIR because the treatment types and activities are consistent with those analyzed in the Program EIR. No conflict would occur because CSP would adhere to SPR AD-3. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the Program EIR. However, land uses in the Project area are essentially the same within and outside the treatable landscape; therefore, the land use impact is also the same, as described above. SPRs applicable to this impact are AD-3 and AD-9. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

IMPACT LU-2

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

NEW LAND USE AND PLANNING, POPULATION AND HOUSING IMPACTS

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

4.12 NOISE

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

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

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

Discussion

IMPACT NOI-1

Mechanical treatments would require the use of heavy, noise-generating equipment, and prescribed burning that may require use of helicopters equipped with a helitorch. The use of this equipment during manual treatments, mechanical treatments, and prescribed burning occurring adjacent to sensitive land uses could temporarily expose those receptors to noise levels that exceed local standards. Prescribed herbivory could occur at any time but no noise-generating equipment use would occur during the nighttime. Herbicide application would not require the use of noise-intensive equipment; noise generated by herbicide application would be negligible. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the Program EIR. This impact is within the scope of the Program EIR because the number and types of equipment proposed, and equipment use being temporary and sporadic, are consistent with the assumptions analyzed in the Program EIR.

Marin County's Noise Ordinance (Code of Ordinances, Section 6.70.030[5]) contains provisions that limit noise sources associated with construction (which applies to ecological restoration treatment) to the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, 9:00 a.m. and 5:00 p.m. on Saturdays. (Marin County 2023).

As discussed in the Program EIR, noise levels generated by individual equipment range from 75 to 87.9 dB at 50 feet from the noise source (75 to 85 dB at 50 feet from the noise source for projects). Though multiple pieces of heavy equipment would be operated simultaneously to implement a treatment, they would typically be spread out (i.e., usually more than 100 feet apart) rather than operating next to each other. This is particularly true of larger, heavy-

duty off-road equipment such as masticators and chippers. As noted above, noise-generating equipment (including helicopters) would be used intermittently between approximately 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. on Saturdays, except for prescribed burning. All treatment activities (except for prescribed burning) using noise-generating equipment would be limited to 7:00 a.m. to 6:00 p.m., which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours. The equipment noise levels discussed above are at 50 feet from the noise source. Therefore, there would be additional attenuation for distance, vegetation, and building materials that would result in interior noise levels being lower than the 75 to 85 dB levels estimated for equipment. Treatments would also be dispersed throughout the 2,433-acre Project area, distributed across distinct treatment areas, so that short-term noise increases at any one sensitive receptor would be limited. In addition, helicopters would only be used to ignite or manage prescribed burns under limited circumstances; and thus, total helicopter usage would be very limited.

SPRs AD-3 and NOI-1 through NOI-5 are applicable to this treatment. With implementation of SPR AD-3, noise levels associated with treatment activities under the CalVTP would not exceed local land use/noise compatibility standards, and noise exposure attributed to treatment activities under the CalVTP would not generate a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of local standards. For any sensitive receptors (e.g., residential land uses, schools, places of worship) that are within 1,500 feet of a treatment area, SPR NOI-6 would also apply. There are residences scattered throughout the Project area that could be within 1,500 feet of proposed treatments. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the exposure potential to any sensitive receptors present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the noise impact is also the same, as described above. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT NOI-2

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

NEW NOISE IMPACTS

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.13.1, "Environmental Setting," and Section 3.13.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed Project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental and regulatory conditions pertinent to noise that are present in the areas

outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment Project are also consistent with those covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to noise would occur.

4.13 RECREATION

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

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

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

Discussion

The Project area is located within Tomales Bay SP, which contains a variety of recreational areas and trails. Tomales Bay SP offers visitors a diverse array of recreational opportunities, including hiking and picnicking, as well as access to many water-based activities including boating, clamming, kayaking, canoeing, stand-up paddleboarding, and swimming. The portion of Tomales Bay SP west of Tomales Bay contains four public beach areas: Indian Beach, Heart's Desire Beach, Pebble Beach, and Shell Beach. The portion of Tomales Bay SP east of Tomales Bay contains picnic facilities at Millerton Point. The western portion of Tomales Bay SP is adjacent to Point Reyes National Seashore, which is operated by the National Park Service.

IMPACT REC-1

Ecological restoration treatment activities have the potential to occur year-round and could disrupt recreational activities such as hiking and picnicking within the Project area through temporary trail closures during active treatments and by degrading the experience of recreationists such as boaters, clammers, kayakers, canoers, paddleboarders, and swimmers through the creation of noise, dust, degradation of scenic views, or increased traffic. The potential for treatment activities to disrupt recreation activities was examined in the Program EIR. Nuisance impacts related to noise, air quality, aesthetics, and transportation would be avoided or minimized as explained in the discussion for those respective resource areas throughout this PSA/Addendum. Recreational users would be notified of temporary closures of any area of the Tomales Bay SP in advance of treatment activities per SPR REC-1. Where feasible, notice of recreational area closure would be posted 2 weeks prior to commencement of treatment activities consistent with SPR REC-1, which would reduce the risk of disruption of recreational activities within the treatment area.

The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, the availability of recreational resources within the Project area is essentially the same within and outside the treatable landscape; therefore, the impact on recreation is also the same, as described above. The SPR applicable to this treatment is REC-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than covered in the Program EIR.

NEW RECREATION IMPACTS

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

4.14 TRANSPORTATION

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

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

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

Discussion

IMPACT TRAN-1

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

treatment are AD-3 and TRAN-1. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT TRAN-2

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

IMPACT TRAN-3

Treatments could temporarily increase vehicle miles traveled (VMT) above baseline conditions because the proposed Project would require vehicle trips to transport crew members and equipment to the treatment areas. This impact was identified as potentially significant and unavoidable in the Program EIR because implementation of the CalVTP would result in a net increase in VMT. Manual and mechanical treatments and prescribed burning under the proposed Project would typically require between 1 and 20 crew members depending on the treatment. The potential for an increase in VMT on affected roadways during implementation of the treatment project was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the size and number of crews is consistent with that analyzed in the Program EIR. The increase in vehicle trips would be temporary and dispersed over multiple roadways. Carpooling would be encouraged under Mitigation Measure AQ-1 and local crews would be used to the extent feasible to reduce VMT. The proposed Project would contribute to the cumulative increase in VMT attributable to implementation of the CalVTP. For these reasons, and as explained in the Program EIR, this impact would remain potentially significant and unavoidable. The inclusion of land in the proposed Project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the transportation-related conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON TRANSPORTATION

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

4.15 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

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

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

Discussion

IMPACT UTIL-1

Initial treatment would consist of ecological restoration through use of manual treatment, mechanical treatment, prescribed burning, targeted ground application of herbicides, and prescribed herbivory in limited areas for maintenance treatments. Prescribed burning and prescribed herbivory would require an on-site water supply. If needed, water would potentially be supplied from the CSP water system, municipal water system, fire engines, or via

water trucks. The potential increased demand for water was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the size of the area proposed for prescribed burning treatments, amount of water required for prescribed burning, and water source type are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the water supply impact is also the same, as described above. SPR AD-3 is applicable to this impact. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-2

Initial and maintenance treatments would generate biomass as a result of vegetation removal within the treatment areas. Biomass generated by mechanical and manual treatments would be disposed of by several means including chipped or lopped and scattered and left on-site, removed to a biomass facility, or burned in an air curtain burner, broadcast burn, or piles. This impact was identified as potentially significant and unavoidable in the Program EIR because biomass hauled off-site in some parts of the treatable landscape could exceed the capacity of existing infrastructure for handling biomass. For the proposed treatment Project, a minor amount of plant biomass would be hauled off-site to an appropriate waste collection facility. While the volume of biomass generated from treatments is not expected to exceed the capacity of existing disposal facilities in Marin County, because the Project would generate biomass needing off-site disposal, it would contribute to the environmental significance conclusion in the Program EIR; therefore, for the purposes of CEQA compliance, this PSA/Addendum notes the impact as potentially significant and unavoidable. This impact is within the scope of the activities and impacts addressed in the Program EIR because the types and amount of biomass that may need to be hauled off-site are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, conditions related to biomass in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above. SPRs AD-3 and UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

IMPACT UTIL-3

As discussed above, initial and maintenance treatments would generate biomass as a result of vegetation removal within the treatment areas. Biomass generated by mechanical and manual treatments would be disposed of by several means, including chipped or lopped and scattered and left on-site, removed to a biomass facility, or burned in an air curtain burner, broadcast burn, or piles. Invasive plant and noxious weed biomass would be treated on-site or would be disposed of off-site at an appropriate waste collection facility to prevent reestablishment or spread of invasive plants and noxious weeds. CSP would comply with all federal, state, and local management and reduction goals, statutes, and regulations related to solid waste. Compliance with reduction goals, statutes, and regulations related to solid waste was examined in the Program EIR. This impact is within the scope of the activities and impacts addressed in the Program EIR because the types and amount of biomass that may need to be hauled off-site are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the biomass conditions in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, impacts related to biomass are also the same, as described above. SPR AD-3 is applicable to this impact. SPR UTIL-1 would be applicable to the proposed treatments if biomass is hauled off-site. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

4.16 WILDFIRE

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

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

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

Discussion

IMPACT WIL-1

Proposed treatments would consist of ecological restoration through use of manual treatment, mechanical treatment, prescribed burning, and herbicide treatments, with prescribed herbivory in limited areas for maintenance treatments. Treatment involving motorized equipment could pose a risk of accidental ignition. Temporary increases in risk associated with uncontrolled fire from prescribed burns could also occur. As discussed in Section 3.17.1, "Environmental Setting," in Volume II of the Final Program EIR, under "Prescribed Burn Planning and Implementation," implementing a prescribed burn requires extensive planning, including the preparation of prescription burn plans, smoke management plans, site-specific weather forecasting, public notifications, safety considerations, and ultimately favorable weather conditions so a burn can occur on a given day. Prior to implementing a prescribed burn, fire containment lines or features would be created or identified to establish the burn unit perimeter consistent with the burn plan. Water containers and safety equipment would be staged on site as necessary. Broadcast burning intended to mimic stand replacing fire is not feasible in Bishop pine forest in the park due to the risk of high severity crown fires and the proximity of local communities. However, limited broadcast burning may be possible in small areas that have had significant pre-treatment using manual, mechanical and/or pile burning, to reduce fuels. Limited broadcast burning in Bishop pine forest would be evaluated in consultation with Marin County Fire, and only considered in select locations where there is road access, a significant setback distance from neighboring communities, where there are few surviving standing pine trees, and under specific weather and topographic conditions.

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

IMPACT WIL-2

Treatment would consist of ecological restoration through use of manual treatment, mechanical treatment, prescribed burning, and herbicide treatments, which could exacerbate fire risk related to postfire flooding or landslides as described in Impact WIL-1 above. The potential for post-fire landslides and flooding was evaluated in the Program EIR. The potential exposure of people or structures to post-fire landslides and flooding are within the scope of the activities and impacts covered in the Program EIR because the equipment types and duration, and methods of prescribed burn implementation are consistent with those analyzed in the Program EIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the wildfire risk of the Project area is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above.

CSP proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of a non-CAL FIRE burn plan template, which would constitute a change to the project analyzed in the Program EIR. Burn plans prepared by CSP would include fire behavior modeling and measures to contain prescribed burns that are at least equivalent to that required under CAL FIRE burn plans. For this reason, proposed revisions to SPR AQ-3 would not substantially exacerbate fire risk and expose people to uncontrolled spread of a wildfire, and revisions to SPR AQ-3, specifically for broadcast burning treatment activities, would not result in a substantially more severe significant effect related to risk of uncontrolled wildfire spread than what was covered in the Program EIR.

SPRs applicable to this impact are AD-3, AQ-3, GEO-3 through GEO-5, and GEO-8. Although most mechanical treatment would occur from existing roads or on flat to moderate slopes, SPR GEO-8 would apply if a treatment area contains slopes greater than 50 percent. Furthermore, because the treatments reduce wildfire risk, they would also decrease post wildfire landslide and flooding risk in areas that could otherwise burn in a high-severity wildfire without treatment. This impact of the proposed Project is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

NEW IMPACTS ON WILDFIRE

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP Program EIR. The project proponent has considered the site-specific characteristics of the proposed treatment Project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP Program EIR (refer to Section 3.17.1, "Environmental Setting," and Section 3.17.2, "Regulatory Setting," in Volume II of the Final Program EIR). Including land from outside the CalVTP treatable landscape in the proposed Project area constitutes a change to the geographic extent presented in the Program EIR. However, within the boundary of the Project area, the existing environmental and regulatory conditions pertinent to wildfire that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment Project are also consistent with those covered in the Program EIR. Revisions to SPR AQ-3 would constitute a change to the project analyzed in the Program EIR. Revisions to SPR AQ-3 would allow for the use of non-CAL FIRE burn plan templates. The CSP Burn Plan Template would include fire behavior modeling and measures to contain broadcast

burns that are at least equivalent to that required under CAL FIRE burn plans, and would also include elements that would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3 and analyzed in the Program EIR; therefore, revisions to SPR AQ-3, would not result in a new impact that was not covered in the Program EIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape and revisions to SPR AQ-3 would not give rise to new significant impacts not addressed in the Program EIR. Therefore, no new impact related to wildfire would occur that is not covered in the Program EIR.

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Attachment A

Mitigation Monitoring and Reporting Program for the Tomales Bay State Park Forest Health and Wildfire Resilience Project

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MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

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

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

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

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, California State Parks is responsible for taking all actions necessary to implement the mitigation measures under its jurisdiction according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. California State Parks will be responsible for implementation of mitigation measures pursuant to Section 15097 of the State CEQA Guidelines.

REPORTING

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

Pursuant to the CSP certified *Tomales Bay State Park Forest Health and Wildfire Resilience Public Works Plan*, CSP shall provide monitoring reports in accordance with the requirements of the SPRs and mitigation measures in the MMRP (below) following implementation of the project. CSP shall maintain a record of monitoring reports in their office, which shall be made available for public review. CSP shall submit a copy of each monitoring report for the review and written approval of the Executive Director of the Coastal Commission within ten days of its completion. The monitoring reports shall be substantially consistent with the requirements of SPR AD-7 (and any other reporting required under the CalVTP).

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

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

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

QUALIFICATION REQUIREMENTS FOR BIOLOGICAL RESOURCE, CULTURAL RESOURCE, AND TRIBAL CULTURAL RESOURCE MEASURES

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

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

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

- **Project-Specific Guidance to Implement:** CSP's cultural resource staff will review the resume and approve the qualifications of the archaeologists in consultation with FIGR.

Tribal Cultural Resources Specialist: The Federated Indians of Graton Rancheria are experts on their Tribe's cultural resources and tribal cultural resources and able to readily identify and determine the importance of sites, features, places, cultural landscapes, and sacred places and objects with cultural value to the Tribe. The Federated Indians of Graton Rancheria will determine the appropriate TCR Specialist for the project. The TCR Specialist is also referred to as "FIGR representative," "FIGR tribal cultural monitor," and "FIGR tribal monitor."

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

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

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

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

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
Administrative Standard Project Requirements			
SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE and/or Marin County Fire Department (MCFD), CAL FIRE and/or MCFD will meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE and/or MCFD will also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment	California State Parks	California State Parks
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. **Project-Specific Implementation** "Protected Resources" can also refer to tribal cultural resources (TCRs). TCRs may be delineated during project activities prior to the beginning of treatment to avoid disturbing the resource. Delineation of TCRs will be done by a professional archaeologist who meets the Secretary of the Interior's Professional Qualification Standards and in consultation and coordination with FIGR Tribal Heritage Preservation Officer.	Prior to treatment	California State Parks	California State Parks
SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent will design and implement the treatment in a manner that is consistent with applicable local plans (e.g., general plans, Community Wildfire Protection Plans, CAL FIRE Unit Fire Plans), policies, and ordinances to the extent the project is subject to them. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment	California State Parks	California State Parks
SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent will: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or smoke concerns; 2) provide ~~publish~~ a public interest notification to 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	At least 3 days prior to prescribed burn treatment activities	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.			
SPR AD-5 Maintain Site Cleanliness: If trash receptacles are used on-site, the project proponent will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. Remove all temporary non-biodegradable flagging, trash, debris, and barriers from the project site upon completion of project activities. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent will post signs in a conspicuous location near the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or concerns. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.	One to three days prior to treatment activities	California State Parks	California State Parks
SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP Program EIR for CEQA compliance, the project proponent will provide the information listed below to the Board of Forestry and Fire Protection (Board) or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. Information on proposed projects (PSA in progress): ▶ GIS data that include project location (as a point), or project latitude/longitude; ▶ project size (typically acres); ▶ treatment types and activities; and ▶ contact information for a representative of the project proponent. The project proponent will provide information on the proposed project to the Board or CAL FIRE as early as feasible in the planning phase. The project proponent will provide this information to the Board or CAL FIRE with sufficient lead time to allow those agencies to make the information available to the public at least two weeks prior to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website). Information on approved projects (PSA complete): ▶ A completed PSA Environmental Checklist;	Prior to, during, and following treatment **Information on the proposed project (PSA/Addendum in progress) was submitted to CAL FIRE on February 22, 2023.**	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist); ▶ GIS data that include a polygon(s) of the Project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction) Information on completed projects (following initial treatment): ▶ GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction) ▶ A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes ▪ Size of treated area (typically acres); ▪ Treatment types and activities; ▪ Dates of work; ▪ A list of the SPRs and mitigation measures that were implemented ▪ Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b). This SPR applies to all treatment activities and all treatment types, including treatment maintenance.			
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: i. 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 ii. 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.	Prior to planning treatments	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
This SPR applies to all treatment activities and all treatment types, including treatment maintenance.			
Aesthetic and Visual Resource Standard Project Requirements			
SPR AES-1 Vegetation Thinning and Edge Feathering: The project proponent will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR AES-2 Avoid Staging within Viewsheds: The project proponent will store all treatment-related materials, including vehicles, vegetation treatment debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project proponent will also locate materials staging and storage areas outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR AES-3 Provide Vegetation Screening: The project proponent will preserve sufficient vegetation within, at the edge of, or adjacent to treatment areas to screen views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
Air Quality Standard Project Requirements			
SPR AQ-1 Comply with Air Quality Regulations: The project proponent will comply with the applicable air quality requirements of air districts within whose jurisdiction the project is located. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
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.	Prior to prescribed burn treatment activities	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using ~~the CAL FIRE~~ a CSP burn plan template for all ~~prescribed~~ broadcast burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model, ~~and~~ BEHAVE or another 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 burn plan will also include communications, an ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. 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~~ CSP, State (CARX/CAL FIRE Rx Fire IC), or National Wildfire Coordinating Group burn boss. The burn plan will incorporate tribal cultural resource goals and protection measures developed in consultation with FIGR. This SPR applies only to broadcast burning treatment activities and all treatment types, including treatment maintenance.	Prior to broadcast burn treatment activities; does not apply to pile burning	California State Parks	California State Parks
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	During treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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-6: Prescribed Burn Safety Procedures. Prescribed burns planned and managed by non-CAL FIRE/MCFD crews will follow all safety procedures required of CAL FIRE/MCFD crews, including the implementation of an approved Incident Action Plan (IAP) and/or prescribed burn plan. The IAP and/or prescribed burn plan 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 and/or prescribed burn plan will also assign responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	During prescribed burn treatment activities	California State Parks	California State Parks
Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements			
SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, ~~the project proponent~~ CSP may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment **Records for the Project area were obtained from California State Parks; see PSA/Addendum for a summary of results.**	California State Parks	California State Parks
SPR CUL-2 Contact Geographically Affiliated Native American Tribes: ~~The project proponent~~ CSP will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, ~~the project proponent~~ CSP 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~~ CSP 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.	Prior to treatment **Tribes have been contacted and Sacred Lands File (SLF) query completed; see PSA/Addendum for a summary of consultation and SLF results.**	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR-CUL-3 Pre-field Research: ~~The project proponent~~ CSP, in consultation with FIGR, will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment	California State Parks	California State Parks
SPR CUL-4 Archaeological Surveys: ~~The project proponent~~ CSP Cultural Resource staff will coordinate with a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards ~~an archaeologically trained resource professional and/or qualified archaeologist~~ to conduct a site-specific survey of the treatment area. The qualified archaeologist will either be a CSP Cultural Resource Specialist, or a qualified archaeologist acting under the direction of CSP. FIGR will be invited to participate in the survey. 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 with FIGR identifies archaeological or historical resources near or within the treatment area. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to treatment	California State Parks	California State Parks
SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, ~~a qualified archaeologist will~~ a CSP Cultural Resource Specialist will notify ~~the~~ FIGR ~~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 FIGR ~~said tribe(s)~~, as a tribal cultural resource. ~~The project proponent~~ A CSP Cultural Resource Specialist, in consultation with ~~culturally affiliated tribe(s)~~ FIGR, 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. If treatment activities will occur near known resources, or where ground disturbance will	Prior to and during treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
occur in sensitive areas, CSP will use FIGR tribal monitors to ensure resource protection during activities and aid in the identification and protection of potentially unidentified resources.			
SPR CUL-6 Treatment of Tribal Cultural Resources: ~~The project proponent~~ CSP, in consultation with ~~the culturally affiliated tribe(s)~~ FIGR, 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 tribal cultural resource locations or changing treatment activities so that damaging effects to tribal cultural resources will not occur. ~~The project proponent~~ CSP will ~~provide the~~ consult with ~~tribe(s)~~ FIGR ~~the opportunity to submit comments and participate in consultation~~ to resolve issues of concern. ~~The project proponent~~ CSP will defer implementing the treatment until FIGR ~~the tribe~~ approves protection measures, or if agreement cannot be reached after a good-faith effort, ~~the proponent~~ CSP 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. CSP will use FIGR tribal monitors either near known tribal cultural resources to ensure their protection during activities, or where ground disturbance is occurring in sensitive areas.	Prior to and during treatment	California State Parks	California State Parks
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~~ CSP will avoid built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines ~~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~~ CSP Cultural Resource Specialist. ~~If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided.~~ This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and during treatment	California State Parks	California State Parks
SPR CUL-8 Cultural Resource Training: ~~The project proponent~~ CSP will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources and will invite FIGR to be present at all CSP trainings. 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)~~ and the appropriate contact procedures for inadvertent finds. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and during treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR TCR-1 Identification of Tribal Cultural Resources: CSP will consult with FIGR on development of effective protection measures for important Tribal Cultural Resources, identified by FIGR, within treatment areas and the design of treatment areas and treatment activities.	Prior to and during treatment	California State Parks	California State Parks
SPR TCR-2 Survey Tribal Cultural Resources: ▶ CSP will consult with and invite the FIGR to conduct site-specific surveys of the treatment area with a FIGR representative prior to any vegetation treatment. ▶ CSP will consult with and invite FIGR to attend post-treatment surveys in areas where pre-survey was limited by site conditions or vegetation treatment has revealed previously inaccessible areas.	Prior to and following treatment	California State Parks	California State Parks
SPR TCR-3 Tribal Cultural Resource Monitoring: CSP will consult with and invite FIGR tribal cultural monitor observation near known tribal cultural resources to ensure their protection during activities, or where project activities are occurring in known sensitive areas.	During treatment	California State Parks	California State Parks
SPR TCR-4 Protect Inadvertent Discoveries of Tribal Cultural Resources: If new TCRs are identified by the FIGR tribal cultural monitor during project activities, work within an area recommended by the FIGR tribal monitor will be halted and CSP will contact and consult with FIGR to assess the significance of the find. If the find is determined to be significant by CSP and FIGR (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), CSP will consult and work with FIGR to develop appropriate procedures and/or protection measures to protect the integrity of the tribal cultural resource.	During treatment	California State Parks	California State Parks
SPR TCR-5 Interpretive Materials: When interpretive materials are considered for project activities CSP will consult with FIGR on their development, content, and placement.	Prior to development of interpretive materials	California State Parks	California State Parks
SPR TCR-6 Ethnobotanical Studies: CSP will consult with FIGR on potential studies, to include, but not be limited to, ethnobotanical plant identification, seed bed extraction, or other studies that contribute to the understanding of past landscapes.	Prior to and during treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
Biological Resources Standard Project Requirements			
SPR BIO-1: Review and Survey Project-Specific Biological Resources. The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment, no more than one year prior to the submittal of the PSA, and no more than one year between completion of the PSA and implementation of the treatment project. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this Program EIR 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 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:	Prior to treatment **Initial data review and reconnaissance-level survey have been conducted; see PSA/Addendum for summary of results.**	California State Parks	California State Parks
1. **Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided**. If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment: a. by physically avoiding the suitable habitat, or b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites). Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around	Prior to and during treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist. **Project-Specific Implementation** <u>Special-status plants</u> ▶ To avoid impacts on non-ESA and -CESA annual and perennial geophyte species identified in Attachment B of the PSA/Addendum, non-ground-disturbing treatment activities (i.e., manual treatments, prescribed burning, and prescribed herbivory) will be implemented only during the dormant season for these species (i.e., when the plant has no aboveground parts), which would generally occur during the winter, if feasible. If the limited operating period for annual and perennial geophyte species (i.e., only non-ground-disturbing treatment activities conducted during the dormant season) is determined to be infeasible, then protocol-level surveys will be required per SPR BIO-7. Note that ground-disturbing treatment activities (i.e., mechanical treatments) may result in impacts on these plant species even when dormant, and will not be conducted without prior implementation of SPR BIO-7. <u>Special-status wildlife</u> ▶ To avoid impacts to northern spotted owls: ▪ To avoid disturbance, injury, or mortality of nesting and fledgling northern spotted owls, prior to starting treatment activities, CSP will conduct an additional data search (e.g., CNDDB, National Park Service data) for recent northern spotted owl nesting detections within 0.25 mile of the treatment area on adjacent lands where access is not available; and a qualified RPF or biologist will survey for suitable nesting habitat within the treatment area. • Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) will be avoided by a distance of 328 feet to 0.25 mile around habitat suitable for nesting within the Project area depending on the noise generated by the activity (following USFWS guidance [USFWS 2018; USFWS 2020]), during the sensitive nesting season (February 1–July 31). • Treatment activities that include the use of heavy equipment, multiple vehicles, or loud hand tools (e.g., chainsaws) will be avoided by a distance of 328 feet to 0.25 mile of CNDDB/National Park Service nesting detections on adjacent lands (unless there is evidence that the documented nest is no longer present), following USFWS guidance (USFWS 2018; USFWS 2020), during the sensitive nesting season (February 1–July 31). • Prescribed burning will be avoided by 0.25 mile of habitat suitable for nesting and of CNDDB/National Park Service nesting detections on adjacent lands (unless there is evidence that the documented nest is no longer present), during the sensitive nesting season (February 1–July 31).			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
• To avoid impacts to northern spotted owl nesting habitat, avoid manual or mechanical treatment within nesting habitat suitable for the species. • If it is not feasible to avoid all treatments as described above, SPR BIO-10 will be implemented. ▶ To avoid impacts on overwintering burrowing owls, all treatments will be conducted outside of the burrowing owl overwintering season (September 1–January 31) in habitats suitable for the species (e.g., grasslands on the eastern side of Tomales Bay). If it is not feasible to avoid certain treatments during the burrowing owl overwintering season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on other special-status birds, treatments will be conducted outside of the nesting season (February 1-August 31). If it is not feasible to avoid treatments during the nesting bird season, then focused or protocol-level surveys pursuant to SPR BIO-10 will be implemented. ▶ To avoid impacts on overwintering monarch butterfly, mechanical treatments, manual treatments, and prescribed burning within tree stands suitable for overwintering monarchs will be conducted outside of the overwintering season (September-March). If it is not feasible to avoid certain treatments during the monarch overwintering season, SPR BIO-10 will be implemented. ▶ To avoid impacts on breeding monarch butterfly, mechanical, manual, herbicide, and prescribed burning treatments will be conducted in grassland, shrub, and oak woodland habitat outside of the season when monarch eggs, larvae, and pupae are likely to be present on milkweed host plants (i.e., treatment will be conducted outside of March 15-October 31). This period may be adjusted by a qualified biologist or RPF to reflect local timing of monarch breeding. If it is not feasible to avoid treatments during this sensitive season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on ringtail, mechanical treatments, manual removal of snags or large trees (i.e., greater than 12 inches diameter at breast height [DBH]), or prescribed burning activities within habitat suitable for the species would not be implemented during the ringtail maternity season (April 15-June 30). If it is not feasible to avoid mechanical treatments, manual snag or large tree (i.e., greater than 12 inches DBH) removal, or prescribed burning activities during the maternity season, SPR BIO-10 will be implemented. ▶ To avoid impacts on Point Reyes jumping mouse, treatments will be conducted outside of the breeding season (May 1-September 30) within bunch grass marsh, wet meadows, and open shrub habitats (e.g., low growing scrub) on the Point Reyes Peninsula. If it is not feasible to avoid treatments during the breeding season, then SPR BIO-10 will be implemented. ▶ To avoid impacts on American badger, manual treatments, mechanical treatments, prescribed burning, and prescribed herbivory treatments within habitat suitable for denning will be conducted outside of the maternity season (February 15-July 1). If it is not feasible to avoid treatments during maternity season, SPR BIO-10 will be implemented. ▶ To avoid impacts to special-status bat maternity roosts, mechanical treatments, manual treatments, and prescribed burning will be conducted outside the bat maternity season (April 1-August 31) in			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
habitat suitable for roosting. If it is not feasible to avoid the bat maternity season, SPR BIO-10 will be implemented. 2. **Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided**. Further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey requirements are presented for special-status plants in SPR BIO-7). This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Implementation** Special-Status Wildlife Because there is no reliable season during which all impacts on California red-legged frog, western pond turtle, California giant salamander, foothill yellow-legged frog, Myrtle's silverspot butterfly, or Point Reyes mountain beaver could be avoided and avoidance of habitat is not feasible for these species, implementation of SPR BIO-10 would be required for these species.			
SPR BIO-2: Require Biological Resource Training for Workers. The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment project. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. The training will instruct workers when it is appropriate to stop work and allow wildlife encountered during treatment activities to leave the area unharmed and when it is necessary to report encounters to a qualified RPF, biologist, or biological technician. The qualified RPF, biologist, or biological technician will immediately contact CDFW or USFWS, as appropriate, if any wildlife protected by the California Endangered Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (without being handled). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and during treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Prior to treatment	California State Parks	California State Parks
SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats: ▶ Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities. ▶ Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species. ▶ Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the	Prior to treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-6: Prevent Spread of Plant Pathogens. When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement the following best management practices to prevent the spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle): ▶ clean and sanitize vehicles, equipment, tools, footwear, and clothes before arriving at a treatment site and when leaving a contaminated site, or a site in a county where contamination is a risk; ▶ include training on *Phytopthora* diseases and other plant pathogens in the worker awareness training; ▶ minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment; ▶ minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination; ▶ clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area; and ▶ follow the procedures listed in "Guidance for plant pathogen prevention when working at contaminated restoration sites or with rare plants and sensitive habitat" (Working Group for *Phytoptheras* in Native Habitats 2016). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Prior to and during treatment	California State Parks	California State Parks
SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status. If potentially occurring special-status plants are listed under CESA or ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS. For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.1 of this Program EIR, surveys will not be required under the following circumstances:	Prior to treatment during blooming period of target plant species	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys. ▶ If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment. This SPR applies to all treatment activities and treatment types, including treatment maintenance.			
Environmentally Sensitive Habitat Areas			
SPR BIO-8: Identify and Avoid or 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 Program EIR, 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.	Prior to and during treatment	California State Parks	California State Parks

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

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (Cal-IPC 2012, or current version). This SPR applies to all treatment activities and treatment types, including treatment maintenance.			
Wildlife			
SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries, monarch overwintering sites) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed. This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Implementation** ▶ For manual treatments, mechanical treatments, prescribed burning, and herbicide application that occur in habitat suitable for California red-legged frog, protocol surveys will be conducted by a qualified biologist or RPF following the guidelines provided by USFWS (USFWS 2005), or presence of the species will be assumed. If presence is assumed or the species is detected during protocol surveys, Mitigation Measure BIO-2a will be implemented. ▶ For mechanical treatment and prescribed burning, pursuant to SPR BIO-1, to avoid impacts on western pond turtle, focused surveys for individuals and nests will be conducted prior to treatment activities that occur in habitat suitable for western pond turtle. If western pond turtles are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ To avoid impacts on California giant salamander, focused surveys for California giant salamander will be conducted by a qualified biologist or RPF within habitat suitable for the species prior to implementation of mechanical, manual, prescribed burning, and prescribed herbivory treatments. If California giant salamanders are identified during focused surveys, or if presence is assumed, Mitigation Measure BIO-2b will be implemented.	No more than 14 days prior to treatment, unless otherwise specified in a protocol	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ To avoid impacts on foothill yellow-legged frog, focused visual encounter surveys for foothill yellow-legged frog will be conducted by a qualified biologist or RPF prior to mechanical, manual, prescribed burning, and herbicide application within 200 feet of perennial (i.e., Class I and Class II) streams. If foothill yellow-legged frog is identified during focused surveys, or if presence is assumed, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid impacts on northern spotted owl pursuant to SPR BIO-1, then surveys following the *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls* (USFWS 2012) will occur. ▪ If nesting northern spotted owls are detected during protocol surveys, or if nests on adjacent lands are identified within 0.25 mile of treatment areas or activity centers (which may include nests or other detections) are identified within 0.7 mile of treatment areas using the CNDDB Spotted Owl Database or best available information, Mitigation Measure BIO-2a will be implemented. ▶ If it is not feasible to avoid all treatments during the burrowing owl overwintering season (September 1–January 31) in habitats suitable for the species (e.g., grasslands on the eastern side of Tomales Bay) pursuant to SPR BIO-1, then focused surveys for active burrows will be implemented. If active overwintering burrowing owl burrows are detected during protocol surveys, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid all treatments during the nesting bird season (February 1-August 31), pursuant to SPR BIO-1, focused surveys (i.e., nest searches) for nests of special-status species (i.e., burrowing owl, long-eared owl, Northern harrier, short-eared owl, white-tailed kite, California clapper rail, California black rail, saltmarsh common yellowthroat, tricolored blackbird, yellow warbler, and yellow rail) will be conducted in habitat suitable for the species no more than 7 days prior to implementing treatment activities during the nesting bird season. If nesting special-status birds are detected during focused surveys, Mitigation Measure BIO-2a or BIO-2b will be implemented depending on the species detected. ▶ If it is not feasible to avoid manual treatments, mechanical treatments, or prescribed burning treatments during the monarch overwintering season (September-March) pursuant to SPR BIO-1, to avoid impacts to special-status overwintering monarch butterflies, the following will be implemented: ▪ A qualified RPF or biologist will assess the Project area for stands suitable for overwintering monarch butterflies and overwintering activity. ▪ If overwintering stands suitable for monarch are present within the Project area, these stands will be recorded and surveyed for overwintering monarchs prior to treatment activities occurring in those stands. ▪ If overwintering monarchs are detected during focused surveys, Mitigation Measure BIO-2b will be implemented.			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ If it is not feasible to avoid mechanical, manual, herbicide, or prescribed burning treatments in grasslands, shrub, and oak woodland habitat during the period when monarch may be breeding (March 15-October 31) pursuant to SPR BIO-1, focused surveys for milkweed host plants (*Asclepias* spp.) will be conducted prior to implementing treatment activities. If milkweed is detected during focused surveys, further survey for monarch butterfly eggs, larvae, and pupae may be conducted or presence of monarch may be assumed. If milkweed host plants are detected during focused surveys and monarch butterfly is detected or assumed present, Mitigation Measure BIO-2e will be implemented. ▶ To avoid impacts to Myrtle's silverspot butterfly, focused surveys for the species will be conducted before implementation of all treatment activities in habitat suitable for the species. If focused surveys for Myrtle's silverspot butterflies are not conducted, presence of the butterfly may be assumed. Because the Project area is within the range of the federally listed Mytle's silverspot and near the only extant population, Mitigation Measure BIO-2e (Myrtle's silverspot butterfly) would be implemented, regardless of the results of SPR BIO-10 surveys, although the implementation of Mitigation Measure BIO-2e would be informed by the results of the focused surveys if they occur. ▶ If it is not feasible to avoid mechanical treatments, manual snag or large tree (i.e., greater than 12 inches DBH) removal, or prescribed burning activities within habitat suitable for ringtail during the ringtail maternity season (pursuant to SPR BIO-1), focused surveys for ringtail will be conducted using trail cameras, track plates, and other non-invasive survey methods to determine whether ringtails are present within the treatment area, or presence may be assumed. Surveys will be conducted by a qualified RPF or biologist with a valid CDFW Scientific Collecting Permit. If ringtails are detected during focused surveys, or presence is assumed, Mitigation Measure BIO-2a will be implemented. ▶ If it is not feasible to avoid treatments within bunch grass marsh, wet meadows, and open shrub habitats (e.g., low growing scrub)on the Point Reyes Peninsula potentially suitable for Point Reyes jumping mouse during the breeding season (May 1-September 30), pursuant to SPR BIO-1, a qualified RPF or biologist will conduct a habitat assessment to determine if the habitat to be treated is suitable for breeding by Point Reyes jumping mouse. If the habitat to be treated is determined to be suitable, focused surveys for Point Reyes jumping mice or their nests will be conducted by a qualified RPF or biologist. If Point Reyes jumping mice or their nests are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ For treatments located within seeps within shrub habitat and shrub habitat on moist north facing slopes on the Point Reyes Peninsula potentially suitable for Point Reyes mountain beaver, a qualified RPF or biologist will conduct a habitat assessment to determine if the habitat to be treated is suitable for Point Reyes mountain beaver. If the habitat to be treated is determined to be suitable, focused surveys for Point Reyes mountain beaver burrows and sign will be conducted by a qualified RPF or biologist. If Point Reyes burrows or sign are detected during focused surveys, Mitigation Measure BIO-2b will be implemented.			

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ To avoid impacts on American badger, focused den surveys will be conducted within suitable denning habitat prior to implementing manual treatments, mechanical treatments, prescribed burning, and prescribed herbivory treatment activities during the maternity season (February 15-July 1). If American badger dens are detected during focused surveys, Mitigation Measure BIO-2b will be implemented. ▶ If it is not feasible to avoid manual treatments, mechanical treatments, and prescribed burning within habitat suitable for bat roosting during the bat maternity season (April 1-August 31) pursuant to SPR BIO-1, focused surveys for maternity roosts will be conducted by a qualified RPF or biologist prior to implementing treatment activities during the bat maternity season. If bat maternity roosts are detected during focused surveys, Mitigation Measure BIO-2b will be implemented.			
SPR BIO-11. Install Wildlife-Friendly Fencing (Prescribed Herbivory). If temporary fencing is required for prescribed herbivory treatment, a wildlife-friendly fencing design will be used. The project proponent will require a qualified RPF or biologist to review and approve the design before installation to minimize the risk of wildlife entanglement. The fencing design will meet the following standards: ▶ Minimize the chance of wildlife entanglement by avoiding barbed wire, loose or broken wires, or any material that could impale or snag a leaping animal; and, if feasible, keeping electric netting-type fencing electrified at all times or laid down while not in use. ▶ Charge temporary electric fencing with intermittent pulse energizers; continuous output fence chargers will not be permitted. ▶ Allow wildlife to jump over easily without injury by installing fencing that can flex as animals pass over it and installing the top wire low enough (no more than approximately 40 inches high on flat ground) to allow adult ungulates to jump over it. The determination of appropriate fence height will consider slope, as steep slopes are more difficult for wildlife to pass. ▶ Be highly visible to birds and mammals by using high-visibility tape or wire, flagging, or other markers. This SPR applies only to prescribed herbivory and all treatment types, including treatment maintenance. **Project-Specific Implementation** ▶ The design of any fencing would be reviewed prior to installation to ensure adequate ground clearance to allow smaller species to avoid entrapment.	Prior to and during treatment	California State Parks	California State Parks
SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP Program EIR. The active nesting season will be defined by the qualified RPF or biologist.	Conduct a survey for common nesting birds (if needed) at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typically involving walking throughout the survey area, visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). If an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent will implement a feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following: ▶ **Establish Buffer.** The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities will be implemented outside of the buffer. The buffer location will be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species 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.	avoidance strategies (no more than 7 days before treatment); if an active nest is observed, implement avoidance strategies prior to and during treatment		

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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. **Project-Specific Implementation** ▶ Standard nest buffers would be 50-300 feet for non-raptors and 500 feet for raptors. Buffers may be modified by a qualified biologist based on rationale such as species sensitivity, vegetative cover, nest height, and topography that would attenuate noise and visual disturbance.			
Geology, Soils, Paleontology, and Mineral Resource Standard Project Requirements			
SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of	During mechanical, prescribed herbivory, and herbicide treatment activities	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			
SPR GEO-2 Limit High Ground Pressure Vehicles: The project proponent will limit heavy equipment that could cause soil disturbance or compaction to be driven through treatment areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. If use of heavy equipment is required in saturated areas, other measures such as operating on organic debris, using low ground pressure vehicles, or operating on frozen soils/snow covered soils will be implemented to minimize soil compaction. Existing compacted road surfaces are exempted as they are already compacted from use. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	During mechanical treatment activities	California State Parks	California State Parks
SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments, and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If mechanical, prescribed herbivory, or prescribed burn treatment activities could result in substantial sediment discharge from soil disturbed by machinery, animal hooves, or being bare, organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR only applies to mechanical, prescribed herbivory, and prescribed burns that result in exposure of bare soil over 50 percent of the project area treatment activities and all treatment types, including treatment maintenance.	During mechanical and prescribed burn treatment activities that result in exposure of bare soil over 50 percent or more of the treatment area	California State Parks	California State Parks
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.	Prior to and during mechanical and prescribed burning treatment activities	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	During mechanical, manual, and prescribed burning treatment activities	California State Parks	California State Parks
SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. In addition, burn piles will not occupy more than 15 percent of the total treatment area (Busse et al. 2014). The project proponent will not locate burn piles in a Watercourse and Lake Protection Zone as defined in SPR HYD-4. This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	During mechanical, manual, and prescribed burning treatment activities	California State Parks	California State Parks
SPR GEO-7 Minimize Erosion: To minimize erosion, the project proponent will: (1) Prohibit use of heavy equipment where any of the following conditions are present: (i) Slopes steeper than 65 percent. (ii) Slopes steeper than 50 percent where the erosion hazard rating is high or extreme. (iii) Slopes steeper than 50 percent that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake. (2) On slopes between 50 percent and 65 percent where the erosion hazard rating is moderate, and all slope percentages are for average slope steepness based on sample areas that are 20 acres, or less, heavy equipment will be limited to: (i) Existing tractor roads that do not require reconstruction, or (ii) New tractor roads flagged by the project proponent prior to the treatment activity. (3) Prescribed herbivory treatments will not be used in areas with over 50 percent slope. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR GEO-8 Steep Slopes: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas with slopes greater than 50 percent for unstable areas (areas with potential for landslide) and unstable soils (soil with moderate to high erosion hazard). If unstable areas or soils are identified within the treatment area, are unavoidable, and will be potentially directly or indirectly affected by the treatment, a licensed geologist (P.G. or C.E.G.) will determine the potential for landslide, erosion, of other issue related to unstable soils and identity measures (e.g., those in SPR GEO-7) that will be implemented by the project proponent such that substantial erosion or loss of topsoil would not occur. This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types, including treatment maintenance.	Prior to and during mechanical treatment on slopes greater than 50 percent	California State Parks	California State Parks
Hazardous Material and Public Health and Safety Standard Project Requirements			
SPR HAZ-1 Maintain All Equipment: The project proponent will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. Prior to the start of treatment activities, the project proponent will inspect all equipment for leaks and inspect everyday thereafter until equipment is removed from the site. Any equipment found leaking will be promptly removed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Inspect all equipment for leaks prior to treatment; inspect everyday thereafter until equipment is removed from the site; promptly remove any leaking equipment; maintain all diesel- and gasoline-powered equipment per manufacturer's specifications and in compliance with all state and federal emissions requirements during treatment	California State Parks	California State Parks
SPR HAZ-2 Require Spark Arrestors: The project proponent will require mechanized hand tools to have federal- or state-approved spark arrestors. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	During manual treatment activities	California State Parks	California State Parks
SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	During manual treatment activities	California State Parks	California State Parks
SPR HAZ-4 Prohibit Smoking in Vegetated Areas: The project proponent will require that smoking is only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HAZ-5 Spill Prevention and Response Plan: The project proponent or licensed Pest Control Advisor (PCA) will prepare a Spill Prevention and Response Plan (SPRP) prior to beginning any herbicide treatment activities to provide protection to onsite workers, the public, and the environment from accidental leaks or spills of herbicides, adjuvants, or other potential contaminants. The SPRP will include (but not be limited to): ▶ a map that delineates staging areas, and storage, loading, and mixing areas for herbicides; ▶ a list of items required in an onsite spill kit that will be maintained throughout the life of the activity; ▶ procedures for the proper storage, use, and disposal of any herbicides, adjuvants, or other chemicals used in vegetation treatment. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	Prepare SPRP prior to beginning any herbicide treatment activities; implement measures during herbicide treatment activities	California State Parks	California State Parks
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.	Prior to and during herbicide treatments	California State Parks	California State Parks
SPR HAZ-7 Triple Rinse Herbicide Containers: The project proponent will triple rinse all herbicide and adjuvant containers with clean water at an approved site, and dispose of rinsate by placing it in the batch tank for application per 3 CCR Section 6684. The project proponent will puncture used containers on the top and bottom to render them unusable, unless said containers are part of a manufacturer's container recycling program, in which case the manufacturer's instructions will be followed. Disposal of non-recyclable containers will be at legal dumpsites. Equipment will not be cleaned, and personnel will not be washed in a manner that would allow contaminated water to directly enter any body of water within the treatment area or adjacent watersheds. Disposal of all herbicides will follow label requirements and waste disposal regulations. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	During and following herbicide treatments	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR HAZ-8 Minimize Herbicide Drift to Public Areas: The project proponent will employ the following herbicide application parameters during herbicide application to minimize drift into public areas: ▶ application will cease when weather parameters exceed label specifications or when sustained winds at the site of application exceeds 7 miles per hour (whichever is more conservative); ▶ spray nozzles will be configured to produce the largest appropriate droplet size to minimize drift; ▶ low nozzle pressures (30-70 pounds per square inch) will be utilized to minimize drift; and ▶ spray nozzles will be kept within 24 inches of vegetation during spraying. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	During herbicide treatment	California State Parks	California State Parks
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.	Prior to, during, and 72 hours after herbicide treatment activities occurring within or adjacent to public recreation areas, residential areas, schools, or any other public areas within 500 feet	California State Parks	California State Parks
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	During treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance. **Project-Specific Implementation** Vegetation treatment activities may result in discharges to waters of the state; therefore, compliance with Water Code sections 13260(a)(1) and 13264 are required. CSP will use the State Water Board's Vegetation Treatment General Order, which provides a mechanism for Water Code compliance for projects that prepare a CalVTP PSA or PSA/Addendum. The project will be automatically enrolled (through implementation of SPR AD-7) in the State Water Board's Vegetation Treatment General Order. The project's automatic enrollment satisfies the requirements of SPR HYD-1.			
SPR HYD-2 Avoid Construction of New Roads: The project proponent will not construct or reconstruct (i.e., cutting or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR HYD-3 Water Quality Protections for Prescribed Herbivory: The project proponent will include the following water quality protections for all prescribed herbivory treatments: ▶ Environmentally sensitive areas such as waterbodies, wetlands, or riparian areas will be identified in the treatment prescription and excluded from prescribed herbivory project areas using temporary fencing or active herding. A buffer of approximately 50 feet will be maintained between sensitive and actively grazed areas. ▶ Water will be provided for grazing animals in the form of an on-site stock pond or a portable water source located outside of environmentally sensitive areas. ▶ Treatment prescriptions will be designed to protect soil stability. Grazing animals will be herded out of an area if accelerated soil erosion is observed. This SPR applies to prescribed herbivory treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is based on 14 CCR Section 916.5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.	Establish WLPZs during design of treatment project; implement WLPZ protections during treatment	California State Parks	California State Parks

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

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

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

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
The following WLPZ protections will be applied for all treatments: ▶ Treatment activities with WLPZs will retain at least 75 percent surface cover and undisturbed area to act as a filter strip for raindrop energy dissipation and for wildlife habitat. If this percentage is reduced a qualified RPF will provide the project proponent with a site- and/or treatment activity-specific explanation for the percent surface cover reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced percent as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). This requirement is based on 14 CCR Section 916.4 [936.4, 956.4] Subsection (b)(6) (February 2019 version) and 14 CCR Section 916.5 (February 2019 version). ▶ Equipment, including tractors and vehicles, must not be driven in wet areas or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry. ▶ Equipment used in vegetation removal operations will not be serviced in WLPZs, within wet meadows or other wet areas, or in locations that would allow grease, oil, or fuel to pass into lakes, watercourses, or wet areas. ▶ WLPZs will be kept free of slash, debris, and other material that harm the beneficial uses of water. Accidental deposits will be removed immediately. ▶ Burn piles will be located outside of WLPZs. ▶ No fire ignition (nor use of associated accelerants) will occur within WLPZs however low intensity backing fires may be allowed to enter or spread into WLPZs. ▶ Within Class I and Class II WLPZs, locations where project operations expose a continuous area of mineral soil 800 square feet or larger shall be treated for reduction of soil loss. Treatment shall occur prior to October 15th and disturbances that are created after October 15th shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies and may include but are not limited to mulching, rip-rap, grass seeding, or chemical soil stabilizers. ▶ Where mineral soil has been exposed by project operations on approaches to watercourse crossings of Class I, II, or III within a WLPZ, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse. ▶ Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes. ▶ Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water. This SPR applies to all treatment activities and treatment types, including treatment maintenance.		California State Parks	California State Parks

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

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	During treatment	California State Parks	California State Parks
SPR NOI-2 Equipment Maintenance: The project proponent will require that all powered treatment equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. This SPR applies to all activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	During mechanical treatment activities	California State Parks	California State Parks
SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses: The project proponent will locate treatment activities, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to the extent feasible, to minimize noise exposure. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks

Standard Project Requirements	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	During treatment	California State Parks	California State Parks
SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	Prior to mechanical treatment activities within 1,500 feet of noise-sensitive receptors	California State Parks	California State Parks
Recreation Standard Project Requirements			
SPR REC-1 Notify Recreational Users of Temporary Closures: ~~If a treatment activity would require temporary closure of a public recreation area or facility, the project proponent will coordinate with the owner/manager of that recreation area or facility.~~ If temporary closure of a recreation area or facility is required, the project proponent will ~~work with the owner/manager to~~ post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities, where feasible. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	If a temporary closure of a public recreation area or facility is required, post notifications at least 14 days prior to treatment, if feasible	California State Parks	California State Parks
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	Prepare TMP prior to treatment and implement during treatment, if needed	California State Parks	California State Parks

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

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Air Quality			
Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment. It is acknowledged that due to cost, availability, and the limits of current technology, there may be circumstances where implementation of certain emission reduction techniques will not feasible. The project proponent will document the emission reduction techniques that will be applied and will explain the reasons other techniques that could reduce emissions are infeasible. Techniques for reducing emissions may include, but are not limited to, the following: ▶ Diesel-powered off-road equipment used in construction will meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Prior to implementation of treatment activities, the project proponent will demonstrate the ability to supply the compliant equipment. A copy of each unit's certified tier specification or model year specification and operating permit (if applicable) will be available upon request at the time of mobilization of each unit of equipment. ▶ Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria: ▪ meet California's Low Carbon Fuel Standards and be certified by CARB Executive Officer; ▪ be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables; ▪ contain no fatty acids or functionalized fatty acid esters; and ▪ have a chemical structure that is identical to petroleum-based diesel and complies with American Society for Testing and Materials D975 requirements for diesel fuels to ensure compatibility with all existing diesel engines. ▶ Electric- and gasoline-powered equipment will be substituted for diesel-powered equipment. ▶ Workers will be encouraged to carpool to work sites, and/or use public transportation for their commutes. Off-road equipment, diesel trucks, and generators will be equipped with Best Available Control Technology for emission reductions of NO_X and PM.	During treatment	California State Parks	California State Parks

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Archaeological, Historical, and Tribal Cultural Resources			
Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a CSP Cultural Resource Specialist, or designated qualified archaeologist will consult with FIGR to assess the significance of the find. The CSP Cultural Resource Specialist will work with FIGR and ~~T~~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~~ CSP Cultural Resource Specialist, in consultation with FIGR, 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 CSP Cultural Resource Specialist and/or 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~~ CSP, in consultation with FIGR, will 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 on standard DPR Primary Record forms (Form DPR 523) that will be submitted to the appropriate regional information center.	During ground-disturbing activities	California State Parks	California State Parks
Biological Resources			
Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, 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	Prior to and during all treatment activities	California State Parks	California State Parks

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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. **Project Specific Implementation** <u>Marin Manzanita</u> To reduce impacts on Marin manzanita, a 50-foot buffer would be implemented. Treatments may be implemented within the 50-foot buffer as follows: 1. map and avoid Marin manzanita plants within proposed treatment areas; 2. except as allowed under number 4, below, limit treatments within 25 feet of these plants to manual treatment and targeted herbicide application, to promote Marin manzanita seedling establishment and remove competing vegetation; 3. prohibit pile burning within 50 feet of Marin manzanita plants, as measured from the dripline of individual shrubs; and, 4. limit the use of prescribed (broadcast) burns to secondary treatment, following the initial reduction of fuel loads and competing vegetation to safe levels by other treatment methods; broadcast burning shall occur no closer than 5 feet of Marin manzanita plants.			

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

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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.			
Mitigation Measure BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities) If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following. <u>Avoid Mortality, Injury, or Disturbance of Individuals</u> The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals: 1. Treatment will not be implemented within the occupied habitat. Any treatment activities outside occupied habitat will be a sufficient distance from the occupied habitat such that mortality, injury, or disturbance of the species will not occur, as determined by a qualified RPF or biologist using the most current and commonly-accepted science and considering published agency guidance; OR 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.	Prior to and during treatment activities	California State Parks	California State Parks

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Maintain Habitat Function ▶ The project proponent will design treatment activities to maintain the habitat function, by implementing the following: ▶ While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▶ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained. A qualified RPF or biologist of the lead agency will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If the lead agency determines after consultation that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c. **Project-Specific Implementation** ▶ To avoid mortality, injury, or disturbance to California red-legged frog, if presence is assumed within the Project area or protocol surveys detect California red-legged frog (pursuant to SPR BIO-10), the following will be implemented for prescribed burning, mechanical treatments, manual treatments, and herbicide application treatment activities: ▪ Pre-treatment surveys and biological monitoring. • Pre-treatment visual surveys will be performed daily by a qualified RPF, biologist, or biological technician, prior to implementation of treatment activities (i.e., prescribed burning, mechanical treatments, manual treatments, herbicide application) year-round within 300			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
feet of Class I or Class II streams and other sensitive habitat areas (e.g., wet intermittent streams, wet seeps). • During the dispersal season (October 1-April 1) or within 24 hours following a rain event greater than 0.25 inch, surveys will be conducted beyond 300 feet from a Class I or Class II waters. The survey will be conducted by a qualified biologist, RPF, or biological technician. The qualified biologist, RPF, or biological technician will mark areas where frogs are found or likely to occur. • Prior to and within 24 hours of ignition of burn piles, each pile will be inspected by a qualified biologist, RPF, or biological technician to determine that California red-legged frogs are not present prior to ignition. ▪ If a California red-legged frog is found during pre-treatment surveys or enters the Project area during treatment activities, a no-disturbance buffer of 100 feet will be implemented around the individual unless it is determined by the qualified biologist or RPF that a different sized buffer is appropriate to avoid injury or mortality. Treatment activities will cease within the buffer until the animal leaves on its own. ▪ All mechanized equipment (e.g., track chippers, tracked grinder, slope mower) will shut down for 24 hours following any precipitation event of 0.2 inch to less than 1 inch, 48 hours following any precipitation event 1 inch to less than 2 inches, and 72 hours following any precipitation event greater or equal to 2 inches. Handwork may continue. ▪ If California red-legged frog is found during pre-treatment surveys or enters the Project area during treatment activities, the specific habitat features used by the frog when detected will be evaluated by a qualified RPF or biologist for habitat retention and prioritized for use in meeting the retention standards for the project. ▶ To avoid mortality, injury, or disturbance to northern spotted owl the following measures will be implemented: ▪ If nests of the species have been detected during the data search (e.g., CNDDB, National Park Service) of adjacent lands (pursuant to SPR BIO-1 and SPR BIO-10) or during protocol surveys (pursuant to SPR BIO-10), a no-disturbance buffer will be implemented for manual treatments and mechanical treatments from February 1–July 31 of 328 feet to 0.25 mile around the nest depending on the noise generated by the activity (following USFWS 2018; USFWS 2020). ▪ A limited operating period for herbicide application of February 1 through July 31 within 328 feet nests would also be implemented to avoid visual disturbance. This buffer may reduced by a qualified RPF or qualified biologist based on the existing human disturbance within the treatment area, topography, screening vegetation and other factors. ▪ A limited operating period will be implemented 0.25 mile around the nest for prescribed burning from February 1–July 31.			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
▪ If pursuant to SPR BIO-10, individual northern spotted owls have been detected during protocol surveys, or activity centers are identified using the CNDDB Spotted Owl Database or best available information within 0.7 mile of treatment areas, then to maintain habitat function for northern spotted owl, the following measures will be required: • Maintain 66 percent of the pretreatment basal area of trees between 18 inches and 30 inches DBH • Maintain 66 percent of the pretreatment basal area of trees greater or equal to 30 inches DBH • Maintain canopy closure of greater than 60 percent of trees greater than 18 inches DBH • Retain a post treatment basal area of greater than or equal to 150 square feet per acre • Create no openings larger than 1/4 acre per 10 acre • Within 750 feet of the activity center (40 acres) midstory and overstory trees will be retained to maintain a multilayer canopy structure: however, removal of understory trees, shrubs and other understory vegetation, and broadcast burning may occur. ▶ If active white-tailed kite nests are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 0.25 mile will be established around the nest, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW. ▶ If active California (Ridgway's) clapper rail nests, California black rail nests, or tricolored blackbird colonies are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of at least 700 feet around California clapper rail nests (USFWS 2021), 600 feet around California black rail nests, and 300 feet around active tricolored blackbird colonies will be established, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. ▶ If the limited operating period for ringtail (pursuant to SPR BIO-1) is determined to be infeasible and presence of ringtail is detected during focused surveys or assumed (pursuant to SPR BIO-10), then the following avoidance and minimization measures would be required: ▪ Den Surveys. Within 7 days prior to the start of mechanical treatments, manual snag and large tree (i.e., greater than 12 inches DBH) removal, and prescribed burning treatments during the ringtail maternity season, a qualified RPF or biologist will conduct a den search in the treatment area to be treated the next week. The qualified RPF or biologist will search for areas of dense shrubs showing signs of ringtail, and large snags and trees (i.e., greater than 12 inches DBH) with appropriate cavities (i.e., holes larger than 3 inches in diameter, cavities extending approximately 12 inches down from the cavity hole). If found, the qualified RPF or biologist will inspect the cavity using a cell phone with a flash or other tools (e.g., borescopes) to determine			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
whether ringtails are present. Areas (e.g., large trees) with appropriate den habitat, occupied or not, will be marked (i.e., with flagging, spray paint), for inspection during future sweeps (as described below). The qualified RPF or biologist will also search for dens in dense brush habitat and will note any sightings of fleeing adult ringtails. ▪ Active Dens. If active ringtail dens are discovered during a den survey or daily sweep, a no-disturbance buffer of at least 0.25 mile will be implemented around the den; and mechanical treatments, manual treatments using power equipment, and prescribed burning will not proceed within the buffer until at least the end of the ringtail maternity season (June 30). The qualified RPF or biologist will confirm that the den is unoccupied before treatment activities resume. The 0.25-mile buffer would incorporate the den and an area greater than the typical ringtail home range in northern California (Wyatt, pers. comm., 2021). If an active den is discovered, the Bay Delta Region of CDFW (R3Timber@wildlife.ca.gov) will be notified of the den and buffer location. CDFW will be provided an opportunity to visit the site and provide technical information on the size and shape of the den buffer. ▪ Daily Sweeps, Training, and Monitoring. If active ringtail dens are not discovered, the following measures will be implemented to avoid inadvertent destruction of active dens that eluded detection during the den search as well as take of adult ringtails and kits. • **Daily Sweeps**. On the first morning of work for mechanical treatments or manual snag or large tree (i.e., greater than 12 inches DBH) removal, a qualified RPF or biologist will conduct a sweep of the area to be treated that day and will search all habitat suitable for ringtail where manual snag or large tree (i.e., greater than 12 inches DBH) removal, prescribed burning, or mechanical treatment (e.g., mastication) will occur that day (i.e., larger trees, heavy brush, rock piles) for active dens or adults, including the trees with cavities previously marked by the qualified RPF or biologist, unless work has occurred continuously since the initial den survey. On following days, a trained contractor will search all areas previously marked by the qualified RPF or biologist for active dens (see training requirements below under "Training and Monitoring"). If an active den is discovered during a daily sweep, the qualified RPF or biologist will be notified, all work will stop, a no-disturbance buffer of at least 0.25 mile will be implemented around the den, and the requirements described above under "Active Dens" will be followed. • **Training and Monitoring**. On the first morning of work for mechanical treatments, manual snag and tree removal, and prescribed burning, the qualified RPF or biologist will provide biological resource training (as required under SPR BIO-2) for all contractors. In addition to standard biological resource training, the qualified RPF or biologist will provide additional training specific to ringtail that will include the following elements: o Description of ringtail appearance (i.e., physical features, typical size), typical ringtail behavior, and denning habitat suitable for ringtail, particularly in that week's treatment			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
area. The approximate location of large trees with cavities that were previously marked will be noted; o Measures required during operation, including daily sweeps of habitat suitable for ringtail where manual treatment using power equipment, prescribed burning, or mechanical treatment (e.g., mastication) will occur that day (i.e., dense shrub habitat, previously marked tree cavities), year-round take avoidance measures, and required increased vigilance when operating in dense shrubs; o Measures required if a ringtail is spotted (i.e., all work halts until a qualified RPF or biologist can conduct a den search and sweep; if the qualified RPF or biologist observes a ringtail or confirms the contractor's observation, the occurrence will be reported to the Bay Delta Region of CDFW at R3Timber@wildlife.ca.gov); o Measures required if a ringtail den is found (i.e., 0.25-mile no-disturbance buffer and requirements described above under "Active Dens" will be followed); o Definition of and legal consequences for take of ringtail (i.e., fine for each take and/or jail sentence); and o Requirements for contacting the Bay Delta Region of CDFW, (R3Timber@wildlife.ca.gov), which include the following circumstances: ringtail observed during treatment activities (notify within 3 business days); active ringtail den discovered (notify within 24 hours); and take of ringtail occurs (notify within 24 hours).			
Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities) If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted 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	Prior to and during treatment activities	California State Parks	California State Parks

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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. <u>Maintain Habitat Function</u> ▶ 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			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▪ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that special-status wildlife with specific requirements for high canopy cover (e.g., northern goshawk, Sierra Nevada snowshoe hare) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted) such that the habitat function is maintained. ▶ A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding habitat function. A qualified RPF or biologist with knowledge of the special-status wildlife species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status wildlife species' habitat or because the loss of special-status wildlife would substantially reduce the number or restrict the range of a special-status wildlife species. If the project proponent determines the impact on special-status wildlife would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status wildlife or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the non-listed special-status wildlife would benefit from treatment in the occupied habitat area even though some of the non-listed special-status wildlife may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to non-listed special-status wildlife, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status wildlife, no compensatory mitigation will be required. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding the determination that a non-listed special-status species would benefit from the treatment.			

Project-Specific Implementation If other (i.e., non-listed) special-status wildlife species are observed during focused or protocol-level surveys (conducted pursuant to SPR BIO-10), CSP will avoid or minimize adverse effects to the species by implementing the following. ▶ If a western pond turtle nest is detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 50 feet including a path from the nest to the nearest aquatic habitat would be established around the nest and prescribed burning and mechanical treatments will not occur within the buffer. If western pond turtle is observed within the treatment area during treatments, treatment activities will cease until the individual has left the area or has been moved out of harm's way by a by the qualified RPF, qualified biologist, or biological technician to other nearby habitat suitable for the species. ▶ If California giant salamander or foothill yellow-legged frog are detected during focused visual encounter surveys or if presence is assumed (pursuant to SPR BIO-10), biological monitoring by a qualified RPF, qualified biologist, or biological technician during mechanical treatments, manual treatments, prescribed burning, or herbicide application treatment activities within or adjacent to sensitive habitat areas (e.g., streams, seeps, springs, talus slopes) will be implemented to avoid injury to or mortality of individual salamanders or frogs. If the qualified RPF, qualified biologist, or biological technician detects a special-status salamander or frog during treatments, treatment activities will cease until the individual has left the area or has been moved out of harm's way and to other nearby habitat suitable for the species. ▶ If an active overwintering burrowing owl burrow is detected during protocol surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 164–330 feet, depending on the intensity of the disturbance (CDFW 2012), will be established around the burrow, and no treatment activities will occur within this buffer until the burrow is no longer active as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW. ▶ If active burrowing owl, long-eared owl, Northern harrier, or short-eared owl nests are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 0.25 mile will be established around the nest, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. This buffer may be reduced by the qualified biologist or RPF to a minimum of 500 feet based on the type of activity, the existing human disturbance within the treatment area, topography, screening vegetation and other factors. ▶ If active saltmarsh common yellowthroat, yellow rail, or yellow warbler nests are detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 300 feet will be established around the nest, and no treatment activities will occur within this buffer until chicks have fledged as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW. ▶ If overwintering monarch butterfly is detected within treatment areas during focused surveys, mechanical treatments, manual treatments, and prescribed burning activities will not occur within			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
the stand until the stand is no longer occupied as determined by a qualified RPF or biologist. Furthermore, for stands with documented use by overwintering monarch butterfly, a treatment plan that maintains the suitability of these stands for overwintering monarchs will be implemented as described in *Protecting California's Butterfly Groves: Management Guidelines for Monarch Butterfly Overwintering Habitat* (Xerces 2017). ▶ If it is not feasible to avoid treatments within bunch grass marsh, wet meadows, and open shrub habitats (e.g., low growing scrub) potentially suitable for Point Reyes jumping mouse during the breeding season (May 1-September 30) (pursuant to SPR BIO-1), and if Point Reyes jumping mice or their nests are detected during focused surveys, pursuant to SPR BIO-10 a limited operating period for occupied Point Reyes jumping mouse habitat will be implemented within occupied habitat and no project activities would take place between May 1-September 30. ▶ If Point Reyes mountain beaver burrows or sign are detected during focused surveys, pursuant to SPR BIO-10, a no-disturbance buffer of at least 50 feet, would be established around the occupied habitat, the size of which may be modified by the qualified RPF or biologist to extend beyond 50 feet if needed to avoid impacts to the species. No treatment activities would occur within this buffer unless it is determined by a qualified RPF or biologist that the habitat is no longer occupied. ▶ If the American badger maternity season cannot be avoided by manual treatments, mechanical treatments, prescribed burning, and prescribed herbivory treatments within suitable American badger denning habitat (pursuant to SPR BIO-1), and an American badger den is detected within treatment areas during focused surveys (pursuant to SPR BIO-10), a no-disturbance buffer of 100 feet will be established around the den during the maternity season (February 15-July 1). Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW. ▶ If the bat maternity roosting season cannot be avoided (pursuant to SPR BIO-1) and a special-status bat roost is detected during focused surveys (pursuant to BIO-10), a no-disturbance buffer of 250 feet will be established around the roost, and no manual treatments, mechanical treatments, or prescribed burning will occur within this buffer until the roost is no longer being used, as determined by a qualified RPF or biologist. Buffer size may be reduced or adjusted if recommended by a qualified biologist in consultation with CDFW.			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Prior to and during treatment activities	California State Parks	California State Parks

Special-status Butterflies and Associated Host Plants

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

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA, because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status butterflies or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources). If it is determined that treatment activities would be beneficial to special-status butterflies, no compensatory mitigation will be required. **Project-Specific Implementation** The measures described above have been tailored to the proposed treatments for monarch butterfly and are as follows: ▶ If host plants for monarch butterfly are detected, and monarch eggs, larvae, and pupae are detected during focus surveys pursuant to SPR BIO-10 or assumed to be present, host plants will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities (other than prescribed herbivory) will occur within 10 feet of these plants if feasible (unless, pursuant to SPR BIO-1, activities occur outside of the period March 15-October 31, when impacts to eggs, larvae, and pupae can be avoided). ▶ If monarch butterfly is detected during focused surveys pursuant to SPR BIO-10, or presence is assumed, treatments will be conducted in a patchy pattern to the extent feasible in grasslands, shrublands, and oak woodlands, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat and floral resources are retained.			

Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands The project proponent will implement the following measures when working in treatment areas that contain sensitive natural communities identified during surveys conducted pursuant to SPR BIO-3: ▶ Reference the *Manual of California Vegetation*, Appendix 2, Table A2, *Fire Characteristics* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/) or other best available information to determine the natural fire regime of the specific sensitive natural community type (i.e., alliance) present. The condition class and fire return interval departure of the vegetation alliances present will also be determined. ▶ Design treatments in sensitive natural communities and oak woodlands to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain or improve habitat function of the affected sensitive natural community. Treatments will be designed to replicate the fire regime attributes for the affected sensitive natural community or oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fireline intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/). Treatments will not be implemented in sensitive natural communities that are within their natural fire return interval (i.e., time since last burn is less than the average time required for that vegetation type to recover from fire) or within Condition Class 1. ▶ To the extent feasible, no fuel breaks will be created in sensitive natural communities with rarity ranks of S1 (critically imperiled) and S2 (imperiled). ▶ To the extent feasible, fuel breaks will not remove more than 20 percent of the native vegetation relative cover from a stand of sensitive natural community vegetation in sensitive natural communities with a rarity rank of S3 (vulnerable) or in oak woodlands. In forest and woodland sensitive natural communities with a rarity rank of S3, and in oak woodlands, only shaded fuel breaks will be installed, and they will not be installed in more than 20 percent of the stand of sensitive natural community or oak woodland vegetation (i.e., if the sensitive natural community covers 100 acres, no more than 20 acres will be converted to create the fuel break). ▶ Use prescribed burning as the primary treatment activity in sensitive natural communities that are fire dependent (e.g., closed-cone forest and woodland alliances, chaparral alliances characterized by fire-stimulated, obligate seeders), to the extent feasible and appropriate based on the fire regime attributes as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/).	Prior to and during treatment activities	California State Parks	California State Parks

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Time prescribed herbivory to occur when non-target vegetation is not susceptible to damage (e.g. non-target vegetation is dormant or has completed its reproductive cycle for the year). For example, use herbivores to control invasive plants growing in sensitive habitats or sensitive natural communities when sensitive vegetation is dormant but invasive plants are growing. Timing of herbivory to avoid non-target vegetation will be determined by a qualified botanist, RPF, or biologist based on the specific vegetation alliance being treated, the life forms and life conditions of its characteristic plant species, and the sensitivity of the non-target vegetation to the effects of herbivory. The feasibility of implementing the avoidance measures will be determined by the project proponent based on whether implementation of this mitigation measure will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. If the avoidance measures are determined by the project proponent to be infeasible, the project proponent will document the reasons implementation of the avoidance strategies are infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). A qualified RPF or botanist with knowledge of the affected sensitive natural community will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat functions of the sensitive natural community or oak woodland. If the project proponent determines the impact on sensitive natural communities or oak woodlands would be less than significant, no further mitigation will be required. If the project proponent determines that the loss or degradation of sensitive natural communities or oak woodlands would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-3b will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. For a treatment to be considered beneficial to a sensitive natural community or oak woodland, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the community (or similar community) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.			

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands Impacts to wetlands will be avoided using the following measures: ▶ The qualified RPF or biologist will delineate the boundaries of federally protected wetlands according to methods established in the USACE wetlands delineation manual (Environmental Laboratory 1987) and the appropriate regional supplement for the ecoregion in which the treatment is being implemented. ▶ The qualified RPF or biologist will delineate the boundaries of wetlands that may not meet the definition of waters of the United States, but would qualify as waters of the state, according to the state wetland procedures (California Water Boards 2019 or current procedures). ▶ A qualified RPF or biologist will establish a buffer around wetlands and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). The buffer will be a minimum width of 25 feet but may be larger if deemed necessary. The appropriate size and shape of the buffer zone will be determined in coordination with the qualified RPF or biologist and will depend on the type of wetland present (e.g., seasonal wetland, wet meadow, freshwater marsh, vernal pool), the timing of treatment (e.g., wet or dry time of year), whether any special-status species may occupy the wetland and the species' vulnerability to the treatment activities, environmental conditions and terrain, and the treatment activity being implemented. ▶ A qualified RPF or biological technician will periodically inspect the materials demarcating the buffer to confirm that they are intact and visible, and wetland impacts are being avoided. ▶ Within this buffer, herbicide application is prohibited. ▶ Within this buffer, soil disturbance is prohibited. Accordingly, the following activities are not allowed within the buffer zone: mechanical treatments, prescribed herbivory, equipment and vehicle access or staging. ▶ Only prescribed (broadcast) burning may be implemented in wetland habitats if it is determined by a qualified RPF or biologist that: ▪ No special-status species are present in the wetland habitat ▪ The wetland habitat function would be maintained. ▪ The prescribed burn is within the normal fire return interval for the wetland vegetation types present ▪ Fire containment lines and pile burning are prohibited within the buffer No fire ignition (and associated use of accelerants) will occur within the wetland buffer.	Prior to and during treatment activities	California State Parks	California State Parks

Mitigation Measures	Timing	Implementing Entity	Verifying/Monitoring Entity
Project-Specific Implementation In addition to those wetlands defined as waters of the state or federally protected waters, wetlands will include Coastal Act wetlands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes. Impacts to all wetlands (i.e., state protected wetlands, federally protected wetlands, wetlands meeting the definition of Coastal Act wetlands) will be avoided using the following measures: ▶ Wetlands and a 100-foot buffer around wetlands will be delineated; ▶ Within wetland boundaries: ▪ Treatment activities will be limited within wetland boundaries to those that would restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs. ▪ Treatment activities would be limited to the implementation of prescribed (broadcast) burning, and this would only be allowed where determined by a qualified RPF or qualified professional that: • no special-status species are present; • habitat function would be maintained or enhanced/restored; • the burn occurs within the expected fire return interval for the vegetation communities present; • no soil disturbance, mechanical treatments, or equipment or vehicle access shall occur; • no pile burning shall occur; and, • no fire ignition (including the associated use of accelerants) shall occur within wetlands. ▶ Treatment activities will be limited within wetland buffers to those that would restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs. No fire ignition (including the associated use of accelerants) shall occur within wetland buffers. No herbicide application shall occur within 25 feet of state or federally protected wetlands; and, ▶ Hand containment lines intended to facilitate prescribed (broadcast) burns are the only type of containment lines that shall be allowed within the wetland buffer. Prohibit any hand containment lines within a minimum of 50 feet from any wetland unless avoidance of 50 feet would make broadcast burning for ecological restoration infeasible due to widespread distribution of Juncus patch wetlands, in which case, buffer encroachment shall be limited to the maximum extent feasible while allowing for necessary burn implementation, but not closer than 25 feet to state or federally protected wetlands.			

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

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

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Attachment B

Coastal Vegetation
Treatment Standards
Tomales Bay State Park

Coastal Vegetation Treatment Standards
Tomales Bay State Park
Forest Health and Wildfire Resilience Project

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

   Response: The Tomales Bay State Park (SP) Forest Health and Wildfire Resilience Project (Project) would comply with the applicable requirements of the California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (EIR). The Project-Specific Analysis (PSA) and Addendum to the Program EIR prepared for the Project provides the details regarding the CalVTP treatment types and activities that would be implemented under the Project, and the applicable SPRs and mitigation measures that would be implemented. As evidenced therein, the Project complies with and will carry out the applicable requirements of the CalVTP Program EIR.

2. A Project-Specific Analysis (PSA) or equivalent data shall be submitted to the California Coastal Commission (Coastal Commission or Commission) for review and approval pursuant to the California State Park's Bay Area District (CSP) *Forest Health and Wildfire Resilience Public Works Plan* (PWP) prior to conducting a project. Coordination between CSP and the Coastal Commission shall occur as early as feasible in the design process to avoid delays.

   Response: The draft PSA/Addendum for the Project was submitted to the Coastal Commission for review on February 16, 2024. Prior to submitting the PSA/Addendum, CSP conducted a site visit to the Project treatment area with Coastal Commission staff on April 17, 2023, to observe existing ecological conditions. Additionally, multiple conference calls with Coastal Commission staff were held during development of the PSA/Addendum in 2023. During these meetings, the treatment approach for the Project was discussed, including the identified treatment objectives and the proposed treatment activities, and CSP received ongoing feedback from Coastal Commission staff on the proposed approach to the analysis and Coastal Vegetation Treatment Standards throughout preparation of the PSA/Addendum.

3. A PSA or equivalent data shall include clear problem and goal statements (i.e., overall project goals, ecological restoration goals) associated with each project proposed pursuant to this public works plan. These statements are intended to assist CSP and the Coastal Commission in developing mutual understanding of the potential impacts and benefits – both short- and long-term – for the project. It is expected that this information will be incorporated into the PSA.

   Response:

   Problem Statement: The native habitats of Tomales Bay SP are adapted to fire and "the combination of colonization, settlement, urbanization, fire suppression, past and present land use, and policies that prevent or avoid forest management have disrupted Coast Miwok relationships with some areas in the county and created a departure from healthy conditions in many of Marin's forests" (Golden Gate National Parks Conservancy 2023). Vegetation communities in Tomales Bay SP face significant ecological stressors including potential high severity wildfires, droughts, invasive species, and pathogens, all of which are amplified by the increasing impacts of climate change. The impacts from these stressors have caused changes in vegetation composition, structure, and density resulting in increased fuel loads that reduce the health and resilience of these habitats and increase the potential risk of impacts from catastrophic wildfires.

   The Marin Fine Scale Vegetation Map (Golden Gate National Parks Conservancy et al. 2021) and Marin Regional Forest Health Strategy (Golden Gate National Parks Conservancy 2023) comprehensive mapping and data analysis document the departure from healthy conditions in vegetation communities in Tomales Bay SP. Those unhealthy conditions include forested areas where greater than 15 percent of the tree canopy are standing dead

trees, where a significant proportion of the forest canopy density was lost between 2010 and 2019, and where there is a very high concentration of ladder fuels.

To gain further understanding of the site-specific forest conditions, CSP funded a forest inventory and assessment in 2019. The inventory, data analysis, and report were completed by Avocet Research Associates and Registered Professional Forester Tom Gaman (Avocet Research Associates and Gaman 2019). That inventory included 50 sample plots within Tomales Bay SP and the data analysis demonstrated that there are high levels of tree disease and mortality in declining Bishop pine and hardwood forests; there is insufficient natural regeneration to sustain both Bishop pine and hardwood forest without management; and confirmed that much of the park is covered with standing dead and fallen trees, a dense, often impenetrable understory of native shrubs, and deep layers of litter and duff, which inhibit forest regeneration and contribute to heavy surface and ladder fuel loads.

The cumulative and ongoing deterioration of the SP's vegetation from ecological stressors requires active stewardship and management. In the absence of ecological restoration, these habitats will continue to degrade resulting in the potential deterioration or loss of native habitats including Bishop pine forest, hardwood forest, and grasslands, and increasing risk of impacts from catastrophic wildfire.

Goal Statement: It is the mission of CSP "[T]o provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation." The proposed Project is focused on protecting natural resources and preserving biological diversity. The Tomales Bay SP General Plan (CSP 2004) provides more detailed and specific parameters for the long-term management of the park. It outlines clear directives for natural resource management and is a key driver of the Project goals. The General Plan directs CSP to manage for the integrity of native plant communities, restore the role of fire in the natural ecological processes of the park, and reduce the risk of high severity wildfire. It also provides specific guidance for Bishop pine management with direction to reestablish and maintain forest structure and improve regeneration of Bishop pines.

The primary goals of the Project were developed based on and consistent with the CSP mission and General Plan. The goals are to improve resilience of the vegetation in the park for ecological benefit and to reduce wildfire risk, preserve and steward the park's Bishop pine forests, mixed hardwood forests, and grasslands and consult with and integrate the Federated Indians of Graton Rancheria (FIGR) Traditional Knowledge (TK) and FIGR perspectives into vegetation management in the park. To accomplish those goals, CSP, in consultation with FIGR, would implement ecologically driven management to restore native habitat composition, structure, and density; create a dynamic mosaic of vegetation types and age classes in the park; and renew the beneficial role of fire through prescribed and cultural burning.

4. In the Tomales Bay State Park coastal zone, vegetation treatment projects shall be limited to Forest Health projects. The purpose of Forest Health projects is to restore and enhance ecosystems, including to prevent 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.

   Response: The Project is a Forest Health project that consists of ecosystem restoration treatments in Bishop pine forest, hardwood forest, grassland, and shrubland habitats.

5. The California Coastal Act and certified LCP define "Environmentally Sensitive [Habitat] Area" (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 that could be easily disturbed or degraded by human activities and developments* (see Coastal Act Section 30107.5; Land Use Plan Section C-BIO-1). Rarity determinations for habitats and species are made by California Department of Fish and Wildlife (CDFW), US Fish and Wildlife Service (USFWS), and California

Native Plant Society (CNPS), and are used to support a Coastal Commission ESHA determination[1]. 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 and certified LCP require that ESHAs be protected against any significant disruption of habitat values and only allow uses dependent on the ESHA's resources within those areas (see Coastal Act Section 30240; Land Use Plan Section C-BIO-2). It is anticipated that most of the Forest Health and Wildfire Resilience activities pursued within Tomales Bay State Park will take place within natural communities that qualify as ESHAs (e.g., Bishop pine forest, coast live oak woodland and forest, tanoak forest, California bay woodland and forest).

Response: The Project would occur within natural communities that qualify as ESHAs either due to rarity of the community or its function as especially valuable habitat (e.g., Bishop pine forest, coast live oak woodland and forest, tanoak forest, California bay woodland and forest, native grasslands, and riparian habitat). As described in the response to Coastal VTS 3, the primary goals of the Project are to improve resilience of the vegetation in the park for ecological benefit and to reduce wildfire risk, preserve and steward the park's Bishop pine forests, mixed hardwood forests, and grasslands and consult with and integrate FIGR TK and FIGR perspectives into vegetation management in the park. To accomplish those goals, CSP, in consultation with FIGR, would implement ecologically driven management to restore native habitat composition, structure, and density; create a dynamic mosaic of vegetation types and age classes in the park; and renew the beneficial role of fire through prescribed and cultural burning. These goals, together with the implementation of CalVTP SPRs and mitigation measures described in the PSA/Addendum, are intended to directly benefit the resources and ecosystems that qualify as ESHA and protect ESHAs against any significant disruption of habitat values. Specifically, SPR BIO-8 would be implemented and contains the following requirements to protect ESHA by protecting the habitat functions that define ESHA within the treatment area.

- Treatments must be designed in compliance with the Local Coastal Program (LCP) to protect the habitat function of the affected ESHA, protect habitat values, and prevent loss or type conversion of habitat and vegetation communities that define the ESHA, or loss of special-status species that inhabit the ESHA.
- Treatment actions are 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 registered professional forester (RPF) familiar with the ecology of the treatment area would monitor all treatment activities in ESHA.

Refer to the response to Coastal VTS 6 and 7 below and Tables 4.5-1 and 4.5-2 in Impact BIO-3 in the PSA/Addendum for more details on ESHA and especially valuable habitats identified within the treatment area. In addition to SPR BIO-8 described above, fine-scale vegetation mapping was completed in the park by the Golden Gate National Parks Conservancy in 2021, which further refined identification of sensitive resources including especially valuable habitats in the treatment area to the alliance level. Fine-scale mapping would be verified prior to treatment implementation, and surveys pursuant to SPR BIO-3 would be implemented within areas mapped as California annual and perennial grassland, classifying vegetation to the alliance level, to determine the presence of especially valuable habitat types (e.g., native grasslands) prior to treatment.

Additional measures that would be implemented to benefit and protect resources and ecosystems are also described in Impact BIO-3 of the PSA/Addendum.

[1] CDFW defines natural communities, animals, and plants with a global or state ranking of 1, 2, or 3 as rare and the Coastal Commission typically finds these to be ESHAs. The Coastal Commission 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 by various authorities (e.g., California Species of Special Concern per CDFW, plant taxa having a California Rare Plant Rank (CRPR) of '1B' and '2B' per CNPS) as constituting ESHAs.

6. In the coastal zone, wetlands are defined as where lands *may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens* (see Coastal Act Section 30121; Local Implementation Plan Section 22.130.030). Administrative Regulations (Section 13577(b)) and the Local Implementation Plan (Section 22.130.030) further elaborate on this definition as *where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes*, and goes on to establish what is effectively a single-parameter rule, meaning that only one of the three parameters used by the US Army Corps of Engineers and various other agencies – hydric soils, hydrophytic vegetation, or hydrology – need be present to delineate a coastal wetland feature. Under the Coastal Act, poorly functioning or degraded areas that meet the definition of wetlands are nonetheless subject to wetland protection policies. Though it is not necessarily anticipated that Forest Health projects will occur around coastal wetlands, it is important to recognize that coastal wetlands can and do occur as part of the landscape mosaic. Wetlands as referenced in the CalVTP are more narrowly defined than would be recognized under the Coastal Act and LCP. The Coastal Act and LCP generally protect wetlands and allow for impacts in only specific situations (see Coastal Act Section 30233; Land Use Plan Section C-BIO-15).

   Response: The Project incorporates the Coastal Act definition of wetlands into the PSA/Addendum and interprets wetlands provisions of the CalVTP as inclusive of coastal wetlands. The protection standards in Coastal VTS 7b have been incorporated as project-specific implementation to Mitigation Measure BIO-4 in the PSA/Addendum to protect coastal wetlands.

7. In addition to the requirements of the CalVTP Program EIR, the following standards shall also be met in the Tomales Bay State Park coastal zone, not only in ESHA but in all habitats:

   a. Protect Ecosystems. Forest Health projects shall:

      i) proactively restore and enhance ecosystems, protect watersheds, and promote long-term storage of carbon, including through the minimization of carbon loss from large and intense wildfires;

      ii) 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;

      iii) maintain vegetation cover and composition to comply with the standards (membership rules) set forth in the online edition of the Manual of California Vegetation (MCV) to avoid unintended habitat conversion[2]; and,

      iv) provide for an appropriate mosaic of native plants by age, size, and class that support overall habitat function.

   Response: Ecological restoration would be implemented to protect and improve forest regeneration and resiliency, create a dynamic mosaic of vegetation types and age classes in the park, and reduce fuels thereby reducing the risk of catastrophic wildfire that threatens to impose extreme conditions on ecosystems and severely limit or even eliminate their capacity to recover thereafter. Treatments would focus on restoring ecosystem processes, conditions, and resiliency to reflect vegetative composition, structure, habitat values, and fuel conditions expected prior to modern fire exclusion.

   Furthermore, unintended habitat conversion would be avoided by the project. The project is divided into habitat units that stratify the vegetation within the project area to recognize distinct ecological characteristics that may benefit from different treatments. Within each high cover and open Bishop pine, mid-seral Bishop pine, and mixed hardwood/Bishop pine habitat unit, treatment would occur on small treatment areas of between 5-10 acres.

   Within high cover Bishop pine habitat, characterized by high canopy cover and strongly dominated by Bishop pine, treatments would retain high vigor Bishop pine, tanoak, madrone (*Arbutus menziesii*), and oaks, generally

[2] 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.

greater than 10 inches DBH except as necessary to create the canopy gaps for horizontal and vertical fuel separation where prescribed burns may be completed, or to provide potential seed sources or canopy openings for mature Bishop pinecones, which are usually located in the upper canopy on the mature trees. Also, treatments would thin or remove Douglas fir (*Pseudotsuga menziesii*) trees less than 30 inches DBH to limit spread/encroachment while retaining larger scattered Douglas fir. In addition, treatments would maintain approximately 20 percent cover of live understory shrubs and trees within each treatment area in a mosaic pattern and retain a minimum of approximately 10 percent cover of understory shrubs and trees within Bishop pine regeneration areas where prescribed burning will be used. Nonnative trees of any size would be removed unless retention is required to protect wildlife or cultural resources.

Within mixed hardwood habitat, treatments would retain high vigor Bishop pine, tanoak, madrone, and oaks, generally greater than 10 inches DBH. Within treatment areas not identified for Bishop pine regeneration treatments would maintain approximately 25 percent relative cover of live understory shrubs and larger hardwoods within each treatment area in a mosaic pattern. In treatment areas where prescribed burning would be used to promote Bishop pine regeneration a minimum of approximately 10 percent cover of understory shrubs and trees within each treatment area would be maintained. Also, treatments would selectively remove Douglas fir (trees less than 30 inches DBH to limit spread/encroachment and retain larger scattered Douglas fir. In addition, treatments would remove nonnative invasive plants and remove nonnative trees of any size unless retention is required.

Within mature hardwood habitat, high vigor Bishop pine, tanoak, madrone, and oaks, generally greater than 10 inches DBH would be retained although larger trees may be selectively removed as necessary to create the canopy gaps for horizontal and vertical fuel separation, where prescribed fire may be completed, or to provide potential seed sources or canopy openings for mature Bishop pinecones, which are usually located in the upper canopy on the mature trees. In addition, approximately 30 percent relative cover of live understory shrubs and larger hardwoods within each treatment unit would be maintained in a mosaic pattern for wildlife and plant habitat and aesthetics. Furthermore, treatments would target nonnative invasive plants and remove or thin nonnative trees of any size unless retention is required to protect wildlife or cultural resources.

In grassland habitats, encroaching shrubs (e.g., coyote brush) and conifers (e.g., Douglas fir) would be removed to promote habitat diversity within the park and protect existing grasslands. In areas formerly characterized by grassland vegetation types that have been converted to coyote brush scrub in the absence of fire and grazing, treatments would remove up to 100 percent of coyote brush shrubs to maintain grassland habitat and restore the native grassland vegetation alliances.

Refer to the response to Coastal VTS 7c and 7d below and Impact BIO-3 in the PSA/Addendum for more details on ESHA and other habitat types within the treatment area, as well as additional measures that would be implemented to protect ecosystems.

b. Protect Wetlands. Forest Health projects shall interpret wetlands in the CalVTP as inclusive of coastal wetlands, and further, shall:

   i) delineate all wetland boundaries and a 100-foot buffer surrounding each;

   ii) limit treatment activities within wetland boundaries to those that would restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs, and limit activities to the implementation of prescribed (broadcast) burning, and allow for this only where determined by a qualified RPF or qualified professional that:

      (1) no special-status species are present;

      (2) habitat function would be maintained or enhanced/restored;

      (3) the burn shall occur within the expected fire return interval for the vegetation communities present;

      (4) no soil disturbance, mechanical treatments, or equipment or vehicle access shall occur;

(5) no pile burning shall occur; and,

(6) no fire ignition (including the associated use of accelerants) shall occur within wetlands.

iii) limit treatment activities within wetland buffers to those that would restore ecological benefits to the wetlands or would maintain wetland habitat quality while improving surrounding ecosystems, including ESHAs. No fire ignition (including the associated use of accelerants) shall occur within wetland buffers; and,

iv) hand containment lines intended to facilitate prescribed (broadcast) burns are the only type of containment lines that shall be allowed within the wetland buffer. Prohibit any hand containment lines within a minimum of 50 feet from any wetland unless avoidance of 50 feet would make broadcast burning for ecological restoration infeasible due to widespread distribution of Juncus patch wetlands, in which case, buffer encroachment shall be limited to the maximum extent feasible while allowing for necessary burn implementation.

Response: As described in the response to Coastal VTS 6 above, the Project incorporates the Coastal Act definition of wetlands into the PSA/Addendum and interprets wetlands provisions of the CalVTP as inclusive of coastal wetlands. Furthermore, the protections listed under "Protect Wetlands," above, have been incorporated as project-specific implementation to Mitigation Measure BIO-4 in the PSA/Addendum to protect coastal wetlands.

c. Protect Bishop Pine Forest. Forest Health projects shall:

i) create and maintain a mosaic of seral stage stands of Bishop pine forest across the park so that all seral stages are represented at the landscape scale;

ii) limit pile burning to areas outside the dripline of mature Bishop pine trees; and,

iii) limit the use of prescribed (broadcast) burns to secondary treatment, following the initial reduction of fuel loads to safe levels by other treatment methods.

Response: Bishop pine treatment would focus on creating a mosaic of seral stage stands across the park, such that all seral stages are represented at the landscape scale, through the enhancement of stand regeneration and enhanced resilience of existing stands. Bishop pine resilience to disturbance would be enhanced by increasing stand diversity so each seral stage is represented in the park. Project treatments would focus on Bishop pine regeneration and establishing early-seral-stage stands in the park using prescribed burning, with a focus on the use of pile burning to create even aged early-seral stage stands. Broadcast burning intended to mimic stand replacing fire is not feasible in Bishop pine forest in the park due to the risk of high severity crown fires and the proximity of our local communities. However, limited broadcast burning may be possible in small areas that have had significant pre-treatment using manual, mechanical and/or pile burning, to reduce fuels, for the purpose of promoting regeneration of Bishop pines in select areas to more closely mimic the regeneration and seedling density conditions that could occur from natural fire. Limited broadcast burning in Bishop pine forest would be evaluated in consultation with Marin County Fire, and only considered in select locations where there is road access, a significant setback distance from neighboring communities, where there are few surviving pine trees, and under specific weather and topographic conditions. The goal of prescribed burning treatments is to have seed producing seral stands even if they may be smaller than the stands produced during a larger fire.

Pile burning within Bishop pine forest would occur outside of the dripline of mature Bishop pine trees in areas with canopy gaps of sufficient size or in areas of little to no live overstory. Piles for burning would not exceed 8 feet in height. As discussed in the response to Coastal VTS 7f below, pretreatment of vegetation using mechanical/manual activities or herbicide application would occur, when necessary, in areas proposed for broadcast burning.

d. Protect Marin Manzanita. Forest Health projects shall:

i) map and avoid Marin manzanita plants within proposed treatment units;

ii) except as allowed under subsection iv, below, limit treatments within 25 feet of these plants to manual treatment and targeted herbicide application, to promote Marin manzanita seedling establishment and remove competing vegetation;

iii) prohibit pile burning within 50 feet of Marin manzanita plants, as measured from the dripline of individual shrubs; and,

iv) limit the use of prescribed (broadcast) burns to secondary treatment, following the initial reduction of fuel loads and competing vegetation to safe levels by other treatment methods; broadcast burning shall occur no closer than 5 feet of Marin manzanita plants.

Response: The locations of Marin manzanita plants within proposed treatment units would be mapped, the plants flagged prior to treatment implementation, and these plants would be avoided. Only manual treatments, targeted herbicide application, or broadcast burning would be allowed within 50 feet of these plants to remove competing vegetation and expose bare mineral soil that would allow Marin manzanita seedlings to establish. Pile burning would be allowed no closer than 50 feet from Marin manzanita plants as measured from the dripline of individual shrubs and would be used to generate the chemical compounds in smoke that stimulate seeds dormant in the seedbank to sprout. Following initial treatments, if the use low-intensity surface burning is feasible, broadcast burning within 5 feet of Marin manzanita plants would provide beneficial effects for these plants by eliminating competitors and stimulating germination. The final buffer size would be determined by a qualified biologist or RPF based on site-specific conditions (e.g., fuel loading around the Marin manzanita); the buffer would protect individual manzanita plants from burning or scorching during broadcast burning while also allowing stimulation of the seed bank. As discussed in the response to Coastal VTS 7f below, pretreatment of vegetation using mechanical/manual activities or herbicide application would occur in areas proposed for broadcast burning.

e. Use 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 qualified RPF 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:

   i) thinning and removal of dead, dying, and diseased trees and shrubs (except that some snags will be retained to provide wildlife shelter, dens, etc.);

   ii) removal of invasive species; and,

   iii) 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 vegetation type will be maintained in accordance with the standards (membership rules) set forth by the online edition of the Manual of California Vegetation (MCV), with the intention of maintaining cover and composition consistent with meeting project ecological goals. If vegetation cover threshold goals, as articulated in the MCV, cannot be met, then removal of endangered, threatened, rare, or otherwise especially valuable species and habitats that would be otherwise prohibited may be considered only if: such removal is critical to maintain the area's ecological resilience to catastrophic fire; removal provides net benefits to the habitat; and, no other alternative exists that meets the project restoration and resilience goals.

Response: The Project would follow the vegetation removal hierarchy described in the Coastal Vegetation Treatment Standards. Initial treatments would remove live and dead shrubs, dead trees, and select live understory trees generally 10 inches DBH and smaller, where thinning would accomplish restoration goals. Nonnative trees of any size would be removed and invasive species such as jubata grass (*Cortaderia jubata*), cape ivy (*Delairea odorata*), blue gum (*Eucalyptus globulus*), French broom (*Genista monspessulana*), and acacia (*Acacia* spp.) would be treated. Larger Douglas fir trees less than 30 inches DBH would be removed to limit

encroachment into other habitats, due to past fire suppression. Treatments within tree dominated habitat types would retain understory shrubs and trees within each treatment, maintaining the vegetation types within the MCV. The exception would be in areas formerly characterized by grassland vegetation types that have been converted to coyote brush scrub in the absence of fire and grazing. In these areas the Project proposes to remove up to 100 percent of coyote brush shrubs to maintain grassland habitat and restore any native grassland vegetation alliances within California annual and perennial grasslands, which would be identified and mapped by surveys pursuant to SPR BIO-3. Grasslands with 10 percent or more relative cover of native grasses and forbs, regardless of community alliance, will be treated as ESHA. This would be a net benefit to these especially valuable habitats.

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

Response: The Project proposes use of prescribed burning to meet ecosystem restoration goals. Prescribed burning treatments would be implemented consistent with the Tomales Bay SP General Plan, which states that CSP shall take action to "rehabilitate the role of fire in the natural ecological processes of Tomales Bay State Park." Specifically, it directs that prescribed burning in the park shall occur "in order to achieve ecosystem, cultural landscape management, and air quality goals" (Goal VEG-10, Tomales Bay SP General Plan & EIR - Vol. 1 pg. 140). Treatment would be conducted under specific conditions related to fuels, weather, and other variables. Generally, prescribed burning treatments would include pile burning, air curtain burning, and broadcast and cultural burning.

Pile burning would occur in areas with canopy gaps of sufficient size or in areas of little to no live overstory. Piles for burning would not exceed 8 feet in height. Pile burning would not occur within Watercourse and Lake Protection Zones pursuant to SPR HYD-4 or within wetland boundaries pursuant to Mitigation Measure BIO-4 as discussed in the response to Coastal VTS 7b above.

Pretreatment of vegetation using mechanical/manual activities or herbicide application may occur, where necessary, in areas proposed for broadcast and cultural burning. Broadcast and cultural burns would be implemented in accordance with a specific prescription that defines the desired maximum flame lengths and fire spread rates based on the fuel types, weather, slopes, aspect, staffing levels and containment lines and strategies set out in a burn plan. Ignitions for broadcast burning would not occur within Watercourse and Lake Protection Zones pursuant to SPR HYD-4 or within wetland boundaries pursuant to Mitigation Measure BIO-4 as discussed in Coastal VTS 7b above.

Air curtain burning would occur on level areas previously disturbed or previously burned by prescribed burning that are devoid of vegetation, and in areas where minor ground leveling would not cause impacts to resources.

All burning will occur in accordance with regulations regarding the use of prescribed burning. This would include the preparation and implementation of a burn plan and a smoke management plan, when applicable and obtaining any required permits to conduct the burn from fire authorities.

g. Determine Suitable Use of Prescribed Herbivory. 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.

Response: The Project proposes use of prescribed herbivory as a maintenance treatment to meet ecosystem restoration goals. Prescribed herbivory maintenance treatments would include the use of goats or sheep to graze or browse target vegetation and would be limited to a total of up to 40 acres within coyote brush scrub and grassland habitats. The implementation of prescribed herbivory would follow CSP's Department Operations Manual 0317.2.4.1 Livestock Grazing Policy, which requires livestock grazing be necessary for a specific natural resources restoration purpose. A grazing management plan would be submitted to the Coastal Commission for

approval prior to the start of prescribed herbivory maintenance treatments which would include a description of current conditions, the potential impacts of grazing on resources of concern, grazing management goals, objectives and performance standards, monitoring, reporting, and a summary of requirements. The potential impacts of prescribed herbivory are addressed in the Project PSA/Addendum.

h. 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, coastal wetlands, or otherwise qualifying as ESHA.

Response: The Project includes removal of nonnative trees, and treatment of invasive species such as jubata grass, cape ivy, blue gum, French broom, and acacia. Additional invasive species would be treated as necessary to prevent their spread and protect native habitat, including those habitats that are not determined to be sensitive natural communities, coastal wetlands, or otherwise qualifying as ESHA. As described under treatment maintenance, treatment areas would be monitored to ensure early detection and rapid removal of invasive plant species. Invasive plant and noxious weed biomass would be treated onsite or would be disposed of offsite at an appropriate waste collection facility to prevent reestablishment or spread of invasive plants and noxious weeds. Diseased material would be burned, masticated, lopped and scattered, or chipped and spread onsite in the same affected treatment area. If diseased material is hauled offsite, it would be disposed of at an appropriate disposal location within the county. In addition, the Project would implement CalVTP SPR BIO-9 in all habitats, which includes inspection and cleaning of equipment, and other measures to prevent the spread of invasive species.

i. Limit Equipment Types. All projects shall be carried out using the least invasive type of equipment feasible. Projects shall avoid the use of large masticators, track vehicles, and other heavy equipment, where feasible. When such heavy equipment is used, it shall remain on existing roads to the extent feasible. In riparian habitat, the use of heavy equipment shall be prohibited, except when authorized through a valid Lake and Streambed Alteration Agreement and/or, if applicable, Clean Water Act Section 401 Water Quality Certification, and when reviewed and approved by the Coastal Commission.

Response: The volume of vegetation within the treatment area that would need to be removed to meet ecological restoration goals makes completely avoiding the use of heavy equipment and limiting its use to existing roads during the Project infeasible. Mechanical treatments would primarily include mastication but may also include "mowing" of shrubs and small trees, and in some cases skidding of felled larger dead trees. Equipment types used would typically include a tracked excavator, skidder, chipper, or masticator. Mechanical treatment would be limited to areas with road or trail access points, generally within 500 feet of roads, slopes generally less than 35 percent, and where biological, cultural, tribal, and aesthetic concerns can be avoided. Mechanical treatments may be used during burn unit prep to reduce fuels around the perimeter and/or in certain areas within the burn unit to help achieve burn plan objectives. Treatments may be used to create a burn perimeter before implementing prescribed burns. Mechanical equipment such as a tracked chipper may traverse areas greater than 35 percent slope to access manual treatment sites. The Project would implement SPR HYD-4 and SPR GEO-2 to reduce impacts from heavy equipment use. SPR HYD-4 prohibits mechanical treatment within Watercourse and Lake Protection Zones, and SPR GEO-2 limits use of high ground pressure vehicles on wet and saturated soils. Most treatments would not occur within 50 feet of the outer (i.e., landward) edge of riparian vegetation.

j. 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 invasive species).

Response: Herbicide application would be used as part of an integrated pest management approach to maintain native species composition and to prevent the growth and spread of invasive species within the treatment areas when other treatment methods are not effective, feasible, or would result in greater potential impacts. Herbicide treatment would occur on less than 6 acres across the total treatment area in targeted and discrete locations. Herbicide treatments would be conducted using targeted ground-based application methods including cut stem, basal bark, and foliar spray using manual application equipment such as backpack applicators or hypo-hatchet

tree injection. Herbicides would be selectively used during initial and maintenance treatments and the minimum amount of herbicide necessary for effective treatment would be used to treat target vegetation. Consistent with CSP standards, all herbicide applications will be conducted in compliance with herbicide application laws and regulations. The following herbicides, which are consistent with those considered for use in the CalVTP, may be used: Clopyralid (monoethanolamine salt); Glyphosate (isopropylamine salt, potassium salt, dimethylamine salt and diammonium salt); Imazapyr (isopropylamine salt); and Triclopyr (butoxyethyl ester and triethylamine salt). All herbicide use would be subject to the California red-legged frog injunction, and would follow the requirements of SPRs HAZ-5, 6, 7, 8, 9, as well as SPR HYD-5. Together, these SPRs and Mitigation Measure BIO-1a and BIO-1b would avoid and minimize adverse effects to sensitive ecological resources by requiring 50 foot buffers around special-status plants (limited modifications to this buffer are documented in the PSA/Addendum and detailed under Mitigation Measure BIO-1a and BIO-1b), and within the Watercourse and Lake Protection Zones of Class I and Class II watercourses, prohibiting application when weather parameters exceed label specifications or when sustained wind at the site of application exceeds 7 miles per hour, prohibiting application during or immediately prior to precipitation events, complying with all herbicide application regulations, and preparing and implementing a Spill Prevention and Response Plan.

k. 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.

Response: The Project proposes use of prescribed herbivory as a maintenance treatment to meet ecosystem restoration goals. The Project would be required to implement SPR BIO-11 and CSP would review the design of any fencing prior to installation to ensure adequate ground clearance to allow smaller species to avoid entrapment.

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

Response: The Project proposes use of prescribed burning to meet ecosystem restoration goals. The use of accelerants would follow the limitations on use pursuant to SPR HYD-4, which prohibits use of accelerants within Watercourse and Lake Protection Zones. Mitigation Measures BIO-1a and BIO-1b prohibit use of accelerants within special-status plant buffers, which are a minimum of 50 feet for plants listed under ESA or CESA (limited modifications to this buffer are documented in the PSA/Addendum and detailed under Mitigation Measure BIO-1a), and generally 50 feet for special-status plants not listed under ESA or CESA. Furthermore, Mitigation Measure BIO-4 prohibits use of accelerants within wetlands and wetland buffers around Coastal Act defined wetlands. Implementation of these SPRs and mitigation measures would avoid impacts from the Project that would disrupt or degrade ESHA or wetlands.

m. Limit the Need for Soil Stabilization. The use of riprap and/or chemical soil stabilizers that could significantly disrupt or degrade ESHA or wetlands is prohibited.

Response: No riprap or chemical soil stabilizers are proposed for use as part of the Project.

n. Protect Equitable Coastal Public Access and Recreation. Equitable coastal public access and recreational opportunities shall be preserved during project operations to the maximum extent feasible, including by, 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. Additionally, CSP shall maintain access to the maximum extent feasible for any scheduled programs. Following the completion of Forest Health projects, all affected coastal public access and recreational amenities shall be restored to existing conditions, in a manner that maximizes equitable coastal public access and recreation.

Response: Treatment activities have the potential to occur year-round and could disrupt recreational activities such as hiking and picnicking within the Project area through temporary trail closures during active treatments. However, treatment activities require trail closures for safety. Recreational users would be notified of temporary closures of any area in Tomales Bay SP in advance of treatment activities per SPR REC-1. Where feasible, notice of recreational area closure would be posted 2 weeks prior to commencement of treatment activities consistent with SPR REC-1, which would reduce the risk of disruption of recreational activities within the treatment area. During prescribed broadcast burn operations, environmental prescriptions for operations may not allow a 2-week notice of trail closure; however, CSP would provide as much advanced notice as is feasible. All coastal public access and recreational amenities that are temporarily closed due to treatment activities would be restored to pre-treatment conditions following treatment activities.

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Attachment C

Biological Resources

Table C-1 Special-Status Plant Species Known to Occur in the Vicinity of the Project Area and Their Potential for Occurrence in the Project Area

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Pink sand-verbena *Abronia umbellata var. breviflora*	—	—	1B.1	Coastal dunes. Blooms June-October. 0-35 feet in elevation. Annual.	*Not expected to occur.* The Project area does not contain coastal dune habitat suitable for this species.
Blasdale's bent grass *Agrostis blasdalei*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Blooms May-July. 0-490 feet in elevation. Geophyte.	*May occur.* Coastal prairie habitat potentially suitable for this species is present in the Millerton Point treatment area. There is no coastal dune or coastal bluff scrub habitat in the treatment areas.
Franciscan onion *Allium peninsulare* var. *franciscanum*	—	—	1B.2	Dry hillsides, cismontane woodland, valley and foothill grassland. Clay, serpentinite (sometimes), or volcanic soils. Blooms as early as April under some conditions; however, predominately blooms May-June. 170-1,000 feet in elevation. Geophyte.	*May occur.* Habitat suitable for this species may be present on dry hillsides in the Project area.
Sonoma alopecurus *Alopecurus aequalis* var. *sonomensis*	FE	—	1B.1	Marshes and swamps, riparian scrub. Blooms May-July. 15-1,200 feet in elevation. Perennial.	*May occur.* Riparian and wetland habitats potentially suitable for this species are present in the Project area.
Napa false indigo *Amorpha californica* var. *napensis*	—	—	1B.2	Broadleafed upland forest, chaparral, cismontane woodland. Blooms April-July. 165-6,560 feet in elevation. Perennial.	*May occur.* Hardwood forest, woodland, and chaparral habitat potentially suitable for this species is present in the Project area.
Bent-flowered fiddleneck *Amsinckia lunaris*	—	—	1B.2	Cismontane woodland, coastal bluff scrub, valley and foothill grassland. Blooms March-June. 10-1,640 feet in elevation. Annual.	*May occur.* Habitat suitable for this species may be present on dry hillsides in the Project area. There is no coastal bluff scrub habitat present in treatment areas.
Vine Hill manzanita *Arctostaphylos densiflora*	—	—	1B.1	Chaparral. Blooms February-April. 165-395 feet in elevation. Perennial.	*May occur.* Chaparral habitat potentially suitable for this species is present in the Project area.
Mt. Tamalpais manzanita *Arctostaphylos montana* ssp. *montana*	—	—	1B.3	Chaparral, valley, and foothill grassland. Usually on serpentinite soils. Blooms February-April. 525-2,495 feet in elevation. Perennial.	*May occur.* Habitat suitable for this species may be present on dry hillsides or chaparral in the Project area.
Marin manzanita *Arctostaphylos virgata*	—	—	1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, North Coast coniferous forest. Sometimes on granitic or sandstone soils. Blooms January-March. 195-2,295 feet in elevation. Perennial.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a, CNPS 2012).
Coastal marsh milk-vetch *Astragalus pycnostachyus* var. *pycnostachyus*	—	—	1B.2	Coastal marshes and swamps. Blooms as early as April under some conditions; however, predominantly blooms June-October. 0-180 feet in elevation. Perennial.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Alkali milk-vetch *Astragalus tener* var. *tener*	—	—	1B.2	Usually playas, wet meadows, and vernal pools. Occasionally in valley and foothill grasslands. Alkaline soils. Blooms March-June. 5-195 feet in elevation. Annual.	*Not expected to occur.* Alkaline soils are not present in treatment areas.
Point Reyes blennosperma *Blennosperma nanum* var. *robustum*	—	SR	1B.2	Coastal prairie, coastal scrub. Blooms February-April. 35-475 feet in elevation. Annual.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal scrub habitat in treatment areas.
Thurber's reed grass *Calamagrostis crassiglumis*	—	—	2B.1	Coastal scrub, marshes, and swamps. Blooms May-August. 35-195 feet in elevation. Geophyte.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area. .
Coastal bluff morning-glory *Calystegia purpurata* ssp. *saxicola*	—	—	1B.2	Coastal bluff scrub, coastal dunes, North Coast coniferous forest. Blooms as early as March under some conditions; however, predominantly blooms April-September. 0-345 feet in elevation. Perennial.	*May occur.* Bishop pine forests potentially suitable for this species is present in the Project area. There is no coastal dune or coastal bluff scrub habitat present in treatment areas.
Swamp harebell *Campanula californica*	—	—	1B.2	Bogs and fens, closed-cone coniferous forest, North Coast coniferous forest, coastal prairie, marshes, swamps, meadows, and seeps, and other mesic areas. Blooms June-October. 5-1,330 feet in elevation. Geophyte.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a, CNPS 2012). Coastal prairie in the Millerton Point treatment area and Bishop pine forests may provide suitable habitat for this species.
Seaside bittercress *Cardamine angulata*	—	—	2B.2	Lower montane coniferous forest, North Coast coniferous forest, streambanks. Blooms as early as January under some conditions; however, predominately blooms March-July. 50-3,000 feet in elevation. Perennial.	*May occur.* Bishop pine forest habitat potentially suitable for this species is present in the Project area.
Bristle-stalked sedge *Carex leptalea*	—	—	2B.2	Bogs, fens, marshes, swamps, meadows, and seeps. Blooms March - July. 0-2295 feet in elevation. Geophyte.	*May occur*. Wetland habitats potentially suitable for this species are present in the Project area.
Lyngbye's sedge *Carex lyngbyei*	—	—	2B.2	Marshes and swamps. Blooms April-August. 0-35 feet in elevation. Geophyte.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area.
Tiburon paintbrush *Castilleja affinis* var. *neglecta*	FE	ST	1B.2	Valley and foothill grassland. Blooms April-June. 195-1,310 feet in elevation. Perennial.	*May occur.* Habitat suitable for this species may be present on dry hillsides in the Project area.
Humboldt Bay owl's-clover *Castilleja ambigua* var. *humboldtiensis*	—	—	1B.2	Marshes and swamps. Blooms April-August. 0-10 feet in elevation. Annual.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a).
Point Reyes paintbrush *Castilleja leschkeana*	—	—	1A	Marshes and swamps. Blooms June. 0-35 feet in elevation. Perennial.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Nicasio ceanothus *Ceanothus decornutus*	—	—	1B.2	Chaparral. Clay (sometimes), rocky, or serpentinite soils. Blooms March-May. 770-950 feet in elevation. Perennial.	*May occur.* Chaparral habitat potentially suitable for this species is present in the Project area.
Mt. Vision ceanothus *Ceanothus gloriosus* var. *porrectus*	—	—	1B.3	Closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland. Blooms February-May. 80-1,000 feet in elevation. Perennial.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a, CNPS 2012). Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. Bishop pine forests in the Project area may provide suitable habitat for this species.
Mason's ceanothus *Ceanothus masonii*	—	SR	1B.2	Chaparral. Often on ultramafic soils. Blooms March-April. 755-1,640 feet in elevation. Perennial.	*May occur.* Chaparral habitat potentially suitable for this species is present in the Project area.
Point Reyes salty bird's-beak *Chloropyron maritimum* ssp. *palustre*	—	—	1B.2	Marshes and swamps. Blooms June-October. 0-35 feet in elevation. Annual.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a).
San Francisco Bay spineflower *Chorizanthe cuspidata* var. *cuspidata*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy soils. Blooms April–July; however, may bloom as late as August under some conditions. 10-705 feet in elevation. Annual.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton Point treatment area.
Woolly-headed spineflower *Chorizanthe cuspidata* var. *villosa*	—	—	1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy soils. Blooms May-July; however, may bloom as late as August under some conditions. 10-195 feet in elevation. Annual.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal dune or coastal bluff scrub habitat present in treatment areas.
Robust sprineflower *Chorizanthe robusta* var. *robusta*	FE	—	—	Maritime chaparral, openings in cismontane woodlands, coastal dunes, coastal scrub. Sometimes on gravelly or sandy soils. Blooms April-September. 10-985 feet in elevation. Annual.	*May occur.* Openings in woodlands and chaparral habitat potentially suitable for this species are present in the Project area. There is no coastal dune or coastal scrub habitat in treatment areas.
Sonoma spineflower *Chorizanthe valida*	FE	SE	1B.1	Coastal prairie. Blooms June-August. 35-1,000 feet in elevation. Annual.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a). Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area.
Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	—	—	2B.1	Marshes and swamps. Blooms July-September. 0-655 feet in elevation. Perennial.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a, CNPS 2012).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Franciscan thistle *Cirsium andrewsii*	—	—	1B.2	Broadleafed upland forest, coastal bluff scrub, coastal prairie. Mesic sites. Sometimes on serpentinite soils. Blooms March-July. 0-490 feet in elevation. Perennial.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a). Coastal prairie habitat in the Millerton point treatment area and hardwood forest habitat potentially suitable for this species present in the Project area. There is no coastal bluff scrub habitat present in treatment areas.
Mt. Tamalpais thistle *Cirsium hydrophilum* var. *vaseyi*	—	—	1B.2	Broadleafed upland forest, chaparral, usually in meadows and seeps. Endemic to serpentinite soils. Blooms May-August. 785-2,035 feet in elevation. Perennial.	*Not expected to occur.* Suitable serpentine habitat for this species is not present within proposed treatment areas.
Raiche's red ribbons *Clarkia concinna* ssp. *raichei*	—	—	1B.1	Coastal bluff scrub. Blooms April-May. 0-330 feet in elevation. Annual.	*Not expected to occur.* There is no coastal bluff scrub habitat present in treatment areas.
Round-headed Chinese-houses *Collinsia corymbosa*	—	—	1B.2	Coastal dunes. Blooms April-June. 0-65 feet in elevation. Annual.	*Not expected to occur.* There is no coastal dune or habitat suitable for this species present in treatment areas.
Baker's larkspur *Delphinium bakeri*	FE	SE	1B.1	Broadleafed upland forest, coastal scrub, valley and foothill grassland. Often on mesic sites. Shale soils. Blooms March-May. 260-1,000 feet in elevation. Perennial.	*May occur.* Hardwood forest and grassland habitats potentially suitable for this species are present in the Project area. There is no coastal scrub habitat present in treatment areas.
Golden larkspur *Delphinium luteum*	FE	SR	1B.1	Chaparral, coastal prairie, coastal scrub. Rocky soils. Blooms March-May. 0-330 feet in elevation. Perennial.	*May occur.* Coastal prairie habitat in the Millerton point treatment area and chaparral habitat potentially suitable for this species are present in the Project area. There is no coastal scrub habitat present in treatment areas.
Western leatherwood *Dirca occidentalis*	—	—	1B.2	Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, North Coast coniferous forest, riparian forest, riparian woodland. Other mesic sites. Blooms January–March, and sometimes as late as April under some conditions. 80-1,395 feet in elevation. Perennial.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a). Bishop pine forests, hardwood forests, and woodland habitat potentially suitable for this species is present in the Project area.
Koch's cord moss *Entosthodon kochii*	—	—	1B.3	Cismontane woodland. 590-3,280 feet in elevation. Moss.	*May occur.* Open areas in hardwood and Bishop pine forest habitat potentially suitable for this species is present in the Project area.
Supple daisy *Erigeron supplex*	—	—	1B.2	Coastal bluff scrub, coastal prairie. Blooms May-July. 35-165 feet in elevation. Perennial.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal bluff scrub present in treatment areas.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Tiburon buckwheat *Eriogonum luteolum* var. *caninum*	—	—	1B.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Gravel and sand. Endemic to serpentinite soils. Blooms May–September. 0-2,295 feet in elevation. Annual.	*Not expected to occur.* There are no grassland or shrubland habitats with serpentine substrates potentially suitable for this species present in the Project area.
Bluff wallflower *Erysimum concinnum*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. February-July 0-605 feet in elevation. Annual/Perennial.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal dune or coastal bluff scrub habitat present in treatment areas.
Marin checker lily *Fritillaria lanceolata* var. *tristulis*	—	—	1B.1	Coastal bluff scrub, coastal prairie. Blooms February-May. 50-490 feet in elevation. Geophyte.	***Known to occur.*** Observations of this species have been recorded in the Project area (Calflora 2022). Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal bluff scrub present in treatment areas.
Fragrant fritillary *Fritillaria liliacea*	—	—	1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Sometimes on serpentinite soils. Blooms February-April. 10-1,345 feet in elevation. Geophyte.	***Known to occur.*** Grassland and woodland habitat potentially suitable for this species is present in the Project area. Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area, and the species is documented to occur in the North Marshall treatment area (CNDDB 2022a). There is no coastal scrub habitat in treatment areas.
Blue coast gilia *Gilia capitata* ssp. *chamissonis*	—	—	1B.1	Coastal dunes, coastal scrub. Blooms April-July. 5-655 feet in elevation. Annual.	*Not expected to occur.* There is no coastal dune or coastal scrub habitat present in treatment areas.
Woolly-headed gilia *Gilia capitata* ssp. *tomentosa*	—	—	1B.1	Coastal bluff scrub, valley and foothill grassland. Rocky or serpentinite soils. Blooms May-July. 35-720 feet in elevation. Annual.	*May occur.* Grassland habitat potentially suitable for this species is present in the Project area. There is no coastal bluff scrub habitat present in treatment areas.
Dark-eyed gilia *Gilia millefoliata*	—	—	1B.2	Coastal dunes. Blooms April-July. 5-100 feet in elevation. Annual.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNPS 2012). There is no coastal dune habitat present in treatment areas.
Congested-headed hayfield tarplant *Hemizonia congesta* ssp. *congesta*	—	—	1B.2	Valley and foothill grassland, sometimes on roadsides. Blooms April-November. 65-1,835 feet in elevation. Annual.	*May occur.* Habitat suitable for this species may be present in the Project area.
Short-leaved evax *Hesperevax sparsiflora* var. *brevifolia*	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Blooms March-June. 0-705 feet in elevation. Annual.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal dune or coastal bluff scrub habitat present in treatment areas.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Marin western flax *Hesperolinon congestum*	FT	ST	1B.1	Chaparral, valley and foothill grassland. Endemic to serpentinite soils. Blooms April-July. 15-1,215 feet in elevation. Annual.	*Not expected to occur.* Grassland and shrubland habitat with serpentine substrates potentially suitable for this species are not present in the Project area.
Water star-grass *Heteranthera dubia*	—	—	2B.2	Marshes and swamps. Alkaline soils. Blooms July-October. 100-4,905 feet in elevation. Perennial.	*Not expected to occur.* Suitable alkaline habitat for this species is not present within proposed treatment areas.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	—	—	1B.1	Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub. Sometimes gravelly or sandy soils, in openings. Blooms April-Septmeber. 35-655 feet in elevation. Perennial.	*May occur.* Bishop pine forests and chaparral habitat potentially suitable for this species is present in the Project area. There is no coastal dune or coastal scrub habitat in treatment areas.
Point Reyes horkelia *Horkelia marinensis*	—	—	1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy soils. Blooms May-September. 15-2,475 feet in elevation. Perennial.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal dune or coastal scrub habitat present in treatment areas.
Thin-lobed horkelia *Horkelia tenuiloba*	—	—	1B.2	Broadleafed upland forest, chaparral, valley and foothill grassland. Mesic sites, in openings. Often on sandy soils. Blooms May–July and can bloom as late as August under some conditions. 165-1,640 feet in elevation. Perennial.	*May occur.* Openings in hardwood forests, chaparral, and grassland habitat potentially suitable for this species are present in the Project area.
Island tube lichen *Hypogymnia schizidiata*	—	—	1B.3	Chaparral, closed-cone coniferous forest. 1,180-1,330 feet in elevation. Lichen.	*May occur.* Bishop pine forest and chaparral habitat potentially suitable for this species is present in the Project area.
Baker's goldfields *Lasthenia californica* ssp. *bakeri*	—	—	1B.2	Closed-cone coniferous forest, coastal scrub, marshes, swamps, meadows, and seeps. Blooms April-October. 195-1,705 feet in elevation. Perennial.	*May occur.* Bishop pine forest habitat potentially suitable for this species is present in the Project area. There is no coastal scrub habitat in treatment areas.
Perennial goldfields *Lasthenia californica* ssp. *macrantha*	—	—	1B.2	Coastal bluff scrub, coastal dunes. Blooms January-November. 15-1,705 feet in elevation. Perennial.	*Not expected to occur.* There is no coastal dune or coastal bluff scrub habitat present in treatment areas.
Beach layia *Layia carnosa*	FT	SE	1B.1	Coastal dunes, coastal scrub. Blooms March– July. 0-195 feet in elevation. Annual.	*Not expected to occur.* There is no coastal dune or coastal bluff scrub habitat present in treatment areas.
Rose leptosiphon *Leptosiphon rosaceus*	—	—	1B.1	Coastal bluff scrub. Blooms April-July. 0-330 feet in elevation. Annual.	*Not expected to occur.* There is no coastal bluff scrub habitat present in treatment areas.
Tamalpais lessingia *Lessingia micradenia* var. *micradenia*	—	—	1B.2	Chaparral, valley and foothill grassland, roadsides. Usually on serpentinite soils. Blooms as early as June under some conditions; however, usually blooms July–October. 330-1,640 feet in elevation. Annual.	*Not expected to occur.* Grassland and shrubland habitat with serpentine substrates potentially suitable for this species are not present in the Project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Mason's lilaeopsis *Lilaeopsis masonii*	—	SR	1B.1	Muddy or silty alluvium in freshwater or brackish marshes and riparian scrub, riparian scrub. Blooms April-November. 0-35 feet in elevation. Geophyte.	*May occur.* Marsh habitat suitable for this species is present in the Project area.
Coast lily *Lilium maritimum*	—	—	1B.1	Broadleafed upland forest, closed-cone coniferous forest, coastal prairie, coastal scrub, marshes and swamps, North Coast coniferous forest, and sometimes roadsides. Blooms May-August. 15-1,560 feet in elevation. Geophyte.	*May occur.* Hardwood and Bishop pine forests, and coastal prairie habitats potentially suitable for this species are present in the Project area.
Pitkin marsh lily *Lilium pardalinum* ssp. *pitkinense*	FE	SE	1B.1	Cismontane woodland, marshes, swamps, meadows, seeps, and other mesic sites. Sandy soils. Blooms June-July. 115-215 feet in elevation. Geophyte.	*Not expected to occur.* The Project area is outside of this species limited range of distribution.
Point Reyes meadowfoam *Limnanthes douglasii* ssp. *sulphurea*	—	SE	1B.2	Marshes, swamps, meadows, seeps, and vernal pools in coastal prairie. Blooms March-May. 0-460 feet in elevation. Annual.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area.
Tidestrom's lupine *Lupinus tidestromii*	FE	SE	1B.1	Coastal dunes. Blooms April – June. 0-330 feet in elevation. Geophyte.	*Not expected to occur.* There is no coastal dune habitat present in treatment areas.
Marsh microseris *Microseris paludosa*	—	—	1B.2	Cismontane woodland, closed-cone coniferous forest, coastal scrub, valley and foothill grassland. Blooms April–June and sometimes as late as July under some conditions. 15-1,165 feet in elevation. Perennial.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNPS 2012). Bishop pine, hardwood forests, and grassland habitat potentially suitable for this species is present in the Project area.
Northern curly leaved monardella *Monardella sinuata* ssp. *nigrescens*	—	—	1B.2	Chaparral, coastal dunes, coastal scrub, lower montane coniferous forest. Sandy soils. Blooms as early as April under some conditions, also may bloom May–July, or August–September. 0-985 feet in elevation. Annual.	*May occur.* Bishop pine forest and chaparral habitat potentially suitable for this species is present in the Project area. There is no coastal dune or coastal scrub present in treatment areas.
Marin County navarretia *Navarretia rosulata*	—	—	1B.2	Chaparral, closed-cone coniferous forest. Endemic to serpentinite soils. Blooms May-July. 655-2,085 feet in elevation. Annual.	*Not expected to occur.* Grassland and shrubland habitat with serpentine substrates potentially suitable for this species are not present in the Project area.
North Coast phacelia *Phacelia insularis* var. *continentis*	—	—	1B.2	Coastal bluff scrub, coastal dunes. Sandy and sometimes rocky soils. Blooms March-May. 35-560 feet in elevation. Annual.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNDDB 2022a).
Point Reyes rein orchid *Piperia elegans* ssp. *decurtata*	—	—	1B.1	Coastal bluff scrub, coastal prairie. Blooms July-October. 50-605 feet in elevation. Perennial.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal bluff scrub habitat present in treatment areas.
Petaluma popcornflower *Plagiobothrys mollis* var. *vestitus*	—	—	1A	Marshes and swamps, occasionally in valley and foothill grassland. Blooms June-July. 35-165 feet in elevation. Perennial.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
North Coast semaphore grass *Pleuropogon hooverianus*	—	ST	1B.1	Usually in wetlands, meadows, vernal pools, and seeps. Occasionally in broadleaved upland forest and North Coast coniferous forest, in openings. Blooms April-June. 35-2,200 feet in elevation. Geophyte.	*May occur.* Wetland habitats potentially suitable for this species are present in the Project area.
Tamalpais oak *Quercus parvula* var. *tamalpaisensis*	—	—	1B.3	Lower montane coniferous forest. Blooms March–April. 330-2,460 feet in elevation. Perennial.	*Not expected to occur.* The Project area is outside the known distribution of this species.
California beaked-rush *Rhynchospora californica*	—	—	1B.1	Bogs and fens, marshes and swamps, meadows, and seeps. Blooms May-July. 150-3,315 feet in elevation. Geophyte.	*May occur***.** Wetland habitats potentially suitable for this species are present in the Project area.
Sanford's arrowhead *Sagittaria sanfordii*	—	—	1B.2	Marshes and swamps. Blooms May–October and sometimes as late as November under some conditions. 0-2,135 feet in elevation. Geophyte.	*May occur*. Wetland habitats potentially suitable for this species are present in the Project area.
Point Reyes checkerbloom *Sidalcea calycosa* ssp. *rhizomata*	—	—	1B.2	Marshes and swamps. Blooms April-September. 10-245 feet in elevation. Geophyte.	*May occur*. Wetland habitats potentially suitable for this species are present in the Project area.
Marin checkerbloom *Sidalcea hickmanii* ssp. *viridis*	—	—	1B.1	Chaparral. Endemic to serpentine soils. Blooms May-June. 165-1,410 feet in elevation. Perennial.	*Not expected to occur.* Shrubland habitat with serpentine substrates potentially suitable for this species is not present in the Project area.
Purple-stemmed checkerbloom *Sidalcea malviflora* ssp. *purpurea*	—	—	1B.2	Meadows, broadleafed upland forest, coastal prairie. Usually in wetlands. Blooms May-June. 50-280 feet in elevation. Geophyte.	***Known to occur.*** Observations of this species have been recorded in the Project area (CNPS 2012). Hardwood forest and coastal prairie habitat potentially suitable for this species is present in the Project area.
Scouler's catchfly *Silene scouleri* ssp. *scouleri*	—	—	2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. Blooms as early as March- May, June-August or as late as September in some conditions. 0-1,970 feet in elevation. Perennial.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal bluff scrub habitat present in treatment areas.
Santa Cruz microseris *Stebbinsoseris decipiens*	—	—	1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland. In openings, sometimes on serpentinite soils. Blooms April-May. 35-1,640 feet in elevation. Annual.	*May occur.* Bishop pine and hardwood forests, chaparral, grassland, and coastal prairie habitat potentially suitable for this species is present in the Project area.
Mount Burdell jewelflower *Streptanthus anomalus*	—	—	1B.1	Cismontane woodland. In openings and on serpentinite soils. Blooms May-June. 165-490 feet in elevation. Annual.	*Not expected to occur.* The Project area is outside the known distribution of this species.
Tamalpais jewelflower *Streptanthus batrachopus*	—	—	1B.3	Chaparral, closed-cone coniferous forest. Endemic to serpentinite soils. Blooms April-July. 1,000-2,135 feet in elevation. Annual.	*Not expected to occur.* The Project area is outside the known distribution of this species.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence[2]
Mt. Tamalpais Bristly jewelflower *Streptanthus glandulosus* ssp. *pulchellus*	—	—	1B.2	Chaparral, valley and foothill grassland. Usually serpentinite soils. Blooms May–July and as late as August under some conditions. 490-2,625 feet in elevation. Annual.	*Not expected to occur.* Chaparral and grassland habitats with serpentine substrates potentially suitable for this species are not present in the Project area.
Whiteworm lichen *Thamnolia vermicularis*	—	—	2B.1	Chaparral, valley and foothill grassland. On rocks derived from sandstone. Approximately 300 feet in elevation. Lichen.	*May occur.* Chaparral and grassland habitat potentially suitable for this species is present in the Project area.
Two-fork clover *Trifolium amoenum*	FE	—	1B.1	Coastal bluff scrub, valley and foothill grassland. Blooms April-June. 15-1,360 feet in elevation. Annual.	*May occur.* Grassland habitat potentially suitable for this species is present in the Project area. There is no coastal bluff scrub habitat present in treatment areas.
Pacific grove clover *Trifolium polyodon*	—	SR	1B.1	Closed-cone coniferous forest, coastal prairie, meadows and seeps, valley and foothill grassland. Granitic soils (sometimes), mesic sites. Blooms April–June and as late as July under some conditions. 15-1,395 feet in elevation. Annual.	*May occur.* Bishop pine forest, chaparral, and coastal prairie habitat potentially suitable for this species is present in the Project area.
San Francisco owl's-clover *Triphysaria floribunda*	—	—	1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. Sometimes on serpentinite soils. Blooms April-June. 35-525 feet in elevation. Annual.	*May occur.* Coastal prairie habitat potentially suitable for this species present in the Millerton point treatment area. There is no coastal scrub habitat in treatment areas.
Coastal triquetrella *Triquetrella californica*	—	—	1B.2	Coastal bluff scrub. 35-330 feet in elevation. Moss.	*Not expected to occur.* There is no coastal bluff scrub habitat present in treatment areas.

Notes: CRPR = California Rare Plant Rank; CEQA = California Environmental Quality Act; ESA = Endangered Species Act; NPPA = Native Plant Protection Act

1 Legal Status Definitions

Federal:
- FE Federally Listed as Endangered (legally protected by ESA)

State:
- SE State Listed as Endangered (legally protected by CESA)
- ST State Listed as Threatened (legally protected by CESA)
- SR State Listed as Rare (legally protected by NPPA)

California Rare Plant Ranks (CRPR):
- 1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).
- 2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

CRPR Threat Ranks:
- 0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- 0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
- 0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

2 Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the treatment area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
May occur: Suitable habitat is available in the treatment area; however, there are little to no other indicators that the species might be present.
Known to occur: The species, or evidence of its presence, has been reported by others.

Sources: Calflora 2022; CNDDB 2022a; CNPS 2012, CNPS 2022.

Table C-2 Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Area and Their Potential for Occurrence in the Project Area

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Amphibians and Reptiles				
California giant salamander *Dicamptodon ensatus*	—	SSC	Meadow and seep, north coast coniferous forest, and riparian forest. Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	*Known to occur*. The Project area contains forest, riparian, and aquatic habitat that is potentially suitable for this species., and the species has been documented to occur in the Tomales Bay area (CNDDB 2022a) and within the Project area (Hardcastle and Shafer, pers. comm., 2024).
California red-legged frog *Rana draytonii*	FT	SSC	Artificial flowing waters, artificial standing waters, freshwater marsh, marsh and swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	*Known to occur.* The majority of the streams within the Project area are likely too small and ephemeral to provide breeding habitat for this species; however, these waters may provide non-breeding aquatic habitat, and the upland potions of the Project area provides upland habitat for the species. Millerton Creek is a perennial creek in the eastern portion of the Project area that may provide suitable breeding habitat, and the species has been documented to occur within this creek (CNDDB 2022a). Additionally, the species has been reported to occur within the portion of the Project area on the Point Reyes Peninsula (CSP 2004), and the species has been documented to occur within potential breeding habitat directly adjacent to this portion of the Project area (CNDDB 2022a).
California tiger salamander - Sonoma County Distinct Population Segment *Ambystoma californiense* pop. 3	FE	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	*Not expected to occur*. The species is not known to occur within Marin County. The nearest documented occurrence is near Petaluma in Sonoma County (CNDDB 2022a). The Project area is outside of the known range of the species.
Foothill yellow-legged frog *Rana boylii*	—	SSC	Chaparral, cismontane woodland, coastal scrub, Klamath/north coast flowing waters, lower montane coniferous forest, meadow and seep, riparian forest, riparian woodland, and Sacramento/San Joaquin flowing waters. Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	*Known to occur.* The majority of the streams within the Project area are likely too small and ephemeral to provide aquatic habitat suitable for this species; however, Millerton Creek is a perennial creek within the eastern portion of the Project area where the species has been documented to occur historically. While there are no recent detections of the species within Millerton Creek or other portions of the Project area, the species has been recently (2020) documented to occur within the Lagunitas Creek watershed (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Red-bellied newt *Taricha rivularis*	—	SSC	Broadleaved upland forest, north coast coniferous forest, redwood, riparian forest, and riparian woodland. Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 0.6 mile to breed, typically in streams with moderate flow and clean, rocky substrate.	*Not expected to occur.* While there are coniferous habitats within the Project area that are potentially suitable for this species, the species is not documented to occur within Marin County (CNDDB 2022a).
Western pond turtle *Emys marmorata*	—	SSC	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.	***Known to occur.*** The marshes within the Project area are tidal and saline and therefore, not likely to be suitable for the species. Also, the majority of the streams on the Project area are not likely to hold sufficient water long enough in the year to be suitable for the species; however, Millerton Creek within the Project area on the east side of Tomales Bay may provide aquatic habitat suitable for the species. In addition, portions of the Project area within the Millerton Creek drainage are within 0.3 mile of the creek and a pond, such that these areas provide upland habitat potentially suitable for nesting by the species. There is one known recorded occurrence of the species within the Project area (CSP 2004).
Birds				
Ashy storm-petrel *Hydrobates homochroa*	—	SSC	Protected deepwater coastal communities. Colonial nester on off-shore islands. Usually nests on driest part of islands. Forages over open ocean. Nest sites on islands are in crevices beneath loosely piled rocks or driftwood, or in caves.	*Not expected to occur.* The Project area does not contain the off-shore island habitat for nesting, or the open ocean habitat required for foraging by this species. The species has been documented to occur within the Project vicinity outside the Project area in the area of Tomales Point where suitable nesting habitat is present (CNDDB 2022a).
Black swift *Cypseloides niger*	—	SSC	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	*Not expected to occur.* The Project area does not contain cliff or waterfall habitat required for nesting by this species. The species has been documented to occur within the Project region outside of the Project area (CNDDB 2022a).
Burrowing owl *Athene cunicularia*	—	SSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, California ground squirrel.	***Known to occur.*** Grassland and coyote brush scrub habitats within the Project area are potentially suitable for nesting by this species. Burrowing owl has been historically documented nesting on Point Reyes Peninsula (CNDDB 2022a) and is known to occur in the eastern portions of the Project area (CSP 2004).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
California (Ridgway's) clapper rail *Rallus obsoletus obsoletus*	FE	SE FP	Brackish marsh, marsh and swamp, salt marsh, wetlands. Salt-water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	*May occur.* Marsh habitats within the Project area are potentially suitable for nesting by this species. The species has been documented to occur in the Keyes Creek area of Tomales Bay near the Project area (CNDDB 2022a).
California black rail *Laterallus jamaicensis coturniculus*	—	ST FP	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	***Known to Occur.*** Marsh habitats within the Project area are potentially suitable for nesting by this species. California black rail have been documented to occur historically within the Project area, and more recently within wetlands outside the Project area, along Tomales Bay and Lagunitas Creek (CNDDB 2022a).
Long-eared owl *Asio otus*	—	SSC	Cismontane woodland, Great Basin scrub, riparian forest, riparian woodland, and upper montane coniferous forest. Riparian bottomlands to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	*May occur.* Riparian and oak woodland habitats within the Project area are potentially suitable for nesting by this species, while grasslands are suitable foraging habitat. The species has been documented to occur on the eastern shore of Tomales Bay (CSP 2004).
Marbled murrelet *Brachyramphus marmoratus*	FT	SE	Lower montane coniferous forest, old growth, redwood. Feeds near-shore; nests inland along coast from Sonoma County to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas fir.	*Not expected to occur.* The species is not known to use Bishop pine forest for nesting, and within California most frequently nests in mature redwood and Douglas fir (Ralph et al. 1995). The species is not documented to occur within Marin County (Paton and Ralph 1990; CNDDB 2022a; USFS and NPS 2023). Critical habitat for the species is designated within the project area (USFWS 2016); however, this does not determine the suitability of the habitat. While marbled murrelet may forage on the waters of Tomales Bay during the non-breeding season, there is a lack of evidence of either nesting further inland by this pelagic species or a foraging corridor involving the Project area that would be used by murrelets to fly to foraging grounds at sea during the breeding season.
Northern harrier *Circus hudsonius*	—	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	*May occur.* Marsh, grassland, and scrub habitats within the Project area are potentially suitable for nesting and foraging by this species. The species has been documented to occur historically on the Point Reyes Peninsula outside the Project area (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Northern Spotted Owl *Strix occidentalis caurina*	FT	ST	North coast coniferous forest, old growth, redwood. Old growth forests or mixed stands of old growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	***Known to occur.*** Nests have been documented to occur within and adjacent to the Project area (CNDDB 2022b; CSP 2004). The forested habitats in the Project area are suitable nesting and foraging habitat for this species.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	—	SSC	Marsh and swamp. Resident of the San Francisco Bay region, in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	*May occur.* The marsh habitat present in the Project area may provide nesting habitat for this species. In addition, the species is known to occur in multiple locations in the Tomales Bay region outside the Project area (CNDDB 2022a).
San Pablo song sparrow *Melospiza melodia samuelis*	—	SSC	Salt marsh. Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the pickleweed (*Salicornia* spp.) marshes; nests in *Grindelia* bordering slough channels.	*Not expected to occur.* Salt marsh habitat is present within the Project area; however, the Project area is outside of the known range of the species, which is restricted to the north side of San Francisco and San Pablo bays. There are no documented occurrences of this species within or near the Project area (CNDDB 2022a).
Short eared owl *Asio flammeus*	—	SSC	Great Basin grassland, marsh and swamp, meadow and seep, valley and foothill grassland, and wetlands. Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	***Known to occur.*** The marsh habitat present in the Project area may provide nesting habitat for this species. In addition, the species is known to occur within the portion of the Project area on the eastern side of Tomales Bay (CSP 2004).
Swainson's hawk *Buteo swainsoni*	—	ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	*Not expected to occur.* The Project area is outside of the published range of the species (CNDDB 2023a), and the nearest documented occurrence is a historic occurrence outside of Petaluma (CNDDB 2023a).
Tricolored blackbird *Agelaius tricolor*	—	ST SSC	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	***Known to occur.*** The marsh habitat and blackberry thickets present in the Project area may provide nesting habitat for this species. In addition, the species is known to occur in multiple locations in the Tomales Bay and Point Reyes Peninsula region outside of the Project area (CNDDB 2022a), and historically within the North Marshall portion of the Project area.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Tufted puffin *Fratercula cirrhata*	—	SSC	Protected deepwater coastal communities. Open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs. Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.	*Not expected to occur.* The Project area does not contain island or cliff habitat for nesting, or open ocean habitat required for foraging by this species. The species has been documented to occur within the Project region at the western end of the Point Reyes Peninsula where suitable nesting habitat is present (CNDDB 2022a).
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.	*May occur.* While the beaches directly adjacent to the Project area are not proposed to be included in treatment activities, these beaches may provide suitable foraging habitat for this species. The species has been documented to occur along the beaches of Tomales Bay outside of the Project area (CNDDB 2022a).
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT	SE	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	*Not expected to occur.* While riparian vegetation is present within the Project area, this vegetation is not the multiple canopy large riparian corridor habitat that is suitable for this species. This species has not been documented to occur within the Tomales Bay region.
White-tailed kite *Elanus leucurus*	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	*May occur.* The Project area is within the range of the species and the grassland and oak woodland habitats within the Project area provide nesting and foraging habitat for this species.
Yellow rail *Coturnicops noveboracensis*	—	SSC	Freshwater marsh, meadow, and seep. Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	*May occur.* The marsh and seep habitat present in the Project area may provide habitat suitable for this species. In addition, the species is known to occur within Tomales Bay outside of the Project area (CNDDB 2022a).
Yellow warbler *Setophaga petechia*	—	SSC	Riparian forest, riparian scrub, riparian woodland. Riparian plant associations in proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	*May occur.* The riparian habitat present in the Project area may provide nesting habitat for this species. In addition, the species is known to occur within the Tomales Bay region outside of the Project area (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Fish				
Coho salmon - central California coast Evolutionary Significant Unit *Oncorhynchus kisutch* pop. 4	FE	SE	Federal listing is for populations between Punta Gorda and San Lorenzo River. State listing includes both the federal listing range and populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water, and sufficient dissolved oxygen.	*May occur.* Millerton Creek within and adjacent to the Project area may provide habitat suitable for the species. The species has used this creek for spawning in the past. In addition, coho are known to migrate through Tomales Bay to spawning areas within Lagunitas Creek and Olema Creek (CSP 2004). The species has been documented to occur within the drainages of Tomales Bay outside the Project area (CNDDB 2022a).
Eulachon *Thaleichthys pacificus*	FT	—	Klamath/North coast flowing waters. Found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris	*May occur.* The larger streams within and directly adjacent to the Project area including Millerton Creek and Tomales Bay may provide habitat suitable for the species. The species has been documented to occur within Bodgea Bay north of the Project area (CNDDB 2022a).
Longfin smelt *Spirinchus thaleichthys*	FC	ST SSC	Estuary. Euryhaline, nektonic, and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt but can be found in completely freshwater to almost pure seawater.	*May occur.* Tomales Bay and the lower portions of marshes within the Project area provide habitat suitable for this species, which has been documented to occur within Tomales Bay (CNDDB 2022a).
Sacramento splittail *Pogonichthys macrolepidotus*	—	SSC	Estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	*Not expected to occur.* The Project area is outside of the current range of the species, and there are no documented occurrences within the Tomales Bay region (CNDDB 2022a).
Southern coastal roach *Hesperoleucus venustus subditus*	—	SSC	Found in the drainages of Tomales Bay and northern San Francisco Bay in the north, and drainages of Monterey Bay in the south.	*May occur.* The larger streams within and directly adjacent to the Project area including Millerton Creek may provide habitat suitable for the species. The species has been documented to occur within the drainages of Tomales Bay outside the Project area (CNDDB 2022a).
Steelhead – central California coast Distinct Population Segment *Oncorhynchus mykiss irideus* pop. 8	FT	—	Sacramento/San Joaquin flowing waters. From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	*May occur.* Millerton Creek and other larger streams within and adjacent to the Project area may provide habitat suitable for the species. In addition, steelhead migrate through Tomales Bay to spawning areas within Lagunitas Creek. The species has been documented to occur within the drainages of Tomales Bay outside the Project area (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Tidewater goby *Eucyclogobius newberryi*	FE	SSC	Klamath/north coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters. 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.	***Known to occur.*** The salt marshes and lower stream reaches within the Project area provide habitat suitable for this species. The species has been documented to occur within the Project area (CSP 2004).
Invertebrates				
California freshwater shrimp *Syncaris pacifica*	FE	SE	Sacramento/San Joaquin flowing waters. Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	*May occur*. California freshwater shrimp are known to occur in Lagunitas Creek and Olema Creek, which drain into Tomales Bay south of the Project area (CNDDB 2022a). However, the species is not known to occur within the Project area, have not been found in salt or brackish water, and are not known to inhabit intertidal or estuarine areas (USFWS 2011). The larger streams that maintain perennial flow or water in pools within the Project area may provide habitat suitable for the species (e.g., Millerton Creek).
Monarch *Danaus plexippus*	FC	—	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	*May occur*. Monarch butterfly has been documented to occur near the Project area (Western Monarch and Milkweed Mapper 2023), although the area is not known to support overwintering monarchs. However, the Bishop pine, eucalyptus, and other tree stands within the Project area may provide suitable overwintering habitat for the species.
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE	—	Coastal dunes. Restricted to the foggy, coastal dunes/hills of the Point Reyes Peninsula north to the Russian River; extirpated from coastal San Mateo County. Larval foodplant thought to be *Viola adunca*.	*May occur*. The Project area is within the historic range of the species, although the only known extant population within the vicinity of the Project area is limited to the coastal dunes of Point Reyes National Seashore (USFWS 2021). However, the host plant for the species is known to occur in several locations within the Project area (Calflora 2023). Therefore, the species may occur in the more open portions of the Project area where there is suitable habitat for *Viola adunca*.
Western bumble bee *Bombus occidentalis*	—	SC	Once common throughout much of its range, in California, this species is currently largely restricted to high elevation sites in the Sierra Nevada and the northern California coast. Habitat includes open grassy areas, chaparral, scrub, and meadows. Requires suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	*Not expected to occur*. While Western bumble bee was documented to occur within the Project area in 1966, the species has not been documented to occur in Marin County since that time. The Project is outside of the current range of the species (Xerces Society 2018).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Mammals				
American badger *Taxidea taxus*	—	SSC	Alkali marsh, alkali playa, alpine, alpine dwarf scrub, bog and fen, brackish marsh, broadleaved upland forest, chaparral, chenopod scrub, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	*May occur*. This species has been documented to occur historically in the Tomales Bay vicinity (CNDDB 2022a). While there have been no recent documented occurrences, the Project is within the range of the species and habitat suitable for the species is found within the Project area.
Pallid bat *Antrozous pallidus*	—	SSC	Chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grassland. Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	*Known to occur*. The Project area contains suitable forested and riparian habitat for this species, and the species has been documented to occur historically within the Project area and more recently within other portions of the Tomales Bay area outside the Project area (CNDDB 2022a).
Point Reyes jumping mouse *Zapus trinotatus orarius*	—	SSC	Coastal scrub, marsh and swamp, meadow and seep, valley and foothill grassland. Primarily in bunch grass marshes on the uplands of Point Reyes. Also present in coastal scrub, grassland, and meadows. Primarily eat grass seeds with some insects and fruit taken. Builds grassy nests on ground under vegetation, burrows in winter.	*May occur*. The Project area contains scrub, marsh, and grassland habitat potentially suitable for the species, and the species is documented to occur on the Point Reyes Peninsula in the vicinity of the Project area (CNDDB 2022a).
Point Reyes mountain beaver *Aplodontia rufa phaea*	—	SSC	Coastal scrub, meadow, and seep. Coastal area of Point Reyes in areas of springs or seepages. North-facing slopes of hills and gullies in areas overgrown with sword ferns and thimbleberries.	*May occur*. The Project area contains scrub habitat and seeps potentially suitable for the species. The species has been documented to occur on the Point Reyes Peninsula in the vicinity of the Project area (CNDDB 2022a).
Ringtail *Bassariscus astutus*	—	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Often found near, but not limited to, a permanent water source.	*May occur*. The Project area contains suitable forested and riparian habitat for this species. There are no documented occurrences in the Project region, although the species in not tracked in the CNDDB.
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE	SE FP	Marsh and swamp, wetland. Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	*Not expected to occur*. The Project area contains marsh habitat that is potentially suitable for this species (CSP 2004), but the Project is outside of the range of the species (CNDDB 2023b), and there are no documented occurrences within the Tomales Bay region (CNDDB 2022a).

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Sonoma tree vole *Arborimus pomo*	—	SSC	North coast coniferous forest, old growth, redwood. North coast fog belt from Oregon border to Sonoma County. In Douglas fir, redwood, and montane hardwood-conifer forests. Feeds almost exclusively on Douglas fir needles. Will occasionally take needles of grand fir, hemlock, or spruce.	*Not expected to occur*. The Project area contains conifer forest and is within the fog belt; however, the Project area is outside of the known range of the species (CNDDB 2023c), and there are no documented occurrences of the species south of Bodega Bay in Sonoma County (CNDDB 2022a).
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 the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	***Known to occur.*** The Project area contains suitable forested and riparian habitat for this species, and the species is documented to occur within the Project area (CNDDB 2022a).
Western red bat *Lasiurus blossevillii*	—	SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	*May occur*. The Project area contains suitable forested and riparian habitat for this species, and the species is documented to occur within the Tomales Bay vicinity (CNDDB 2022a).

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

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected)
FT Federally Listed as Threatened (legally protected)
FC Candidate for Listing under the federal Endangered Species Act

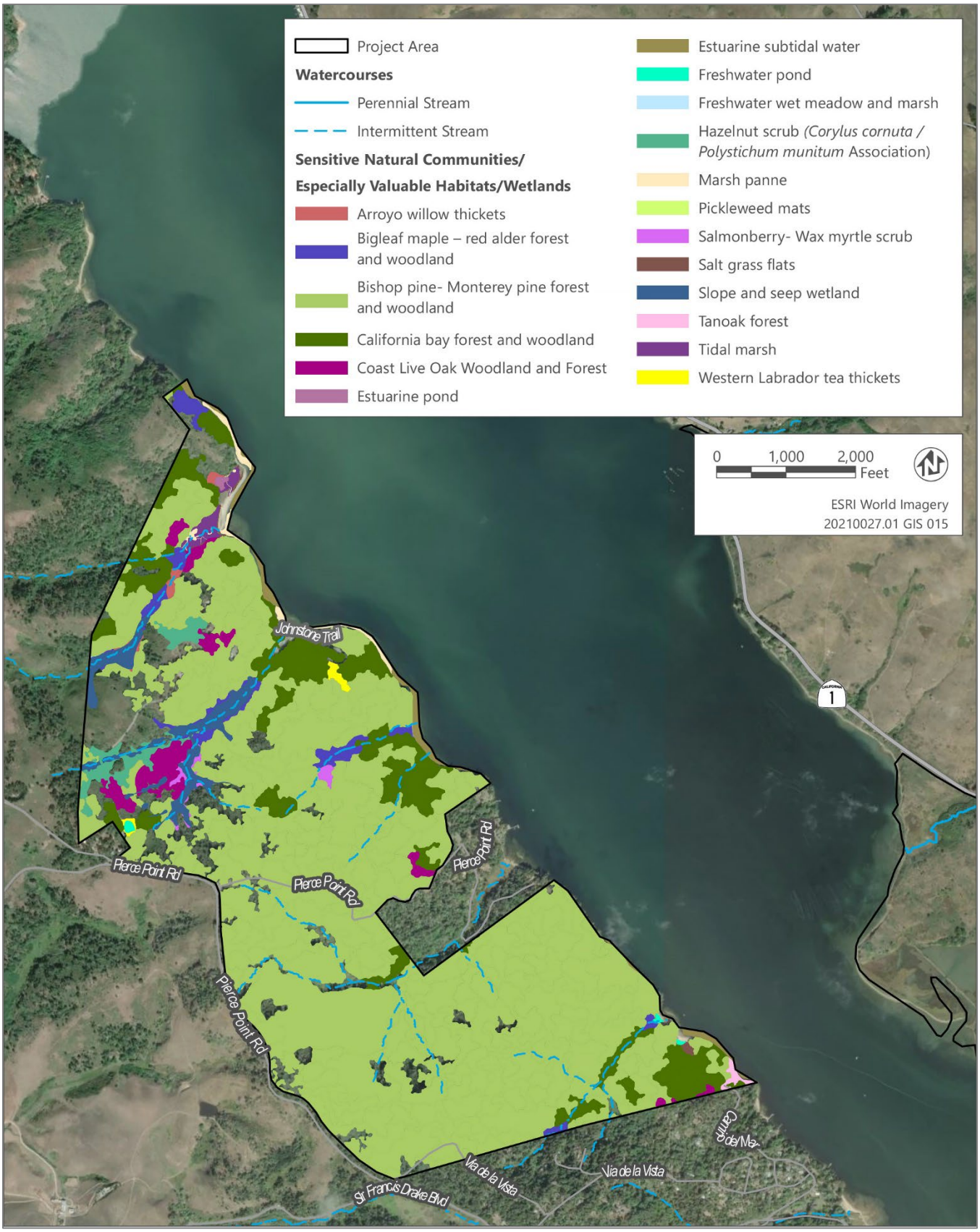
State:

FP Fully Protected (legally protected)
SSC Species of Special Concern (no formal protection other than CEQA consideration)
SE State Listed as Endangered (legally protected)
ST State Listed as Threatened (legally protected)
SC State Candidate for listing (legally protected)

2 Potential for Occurrence Definitions

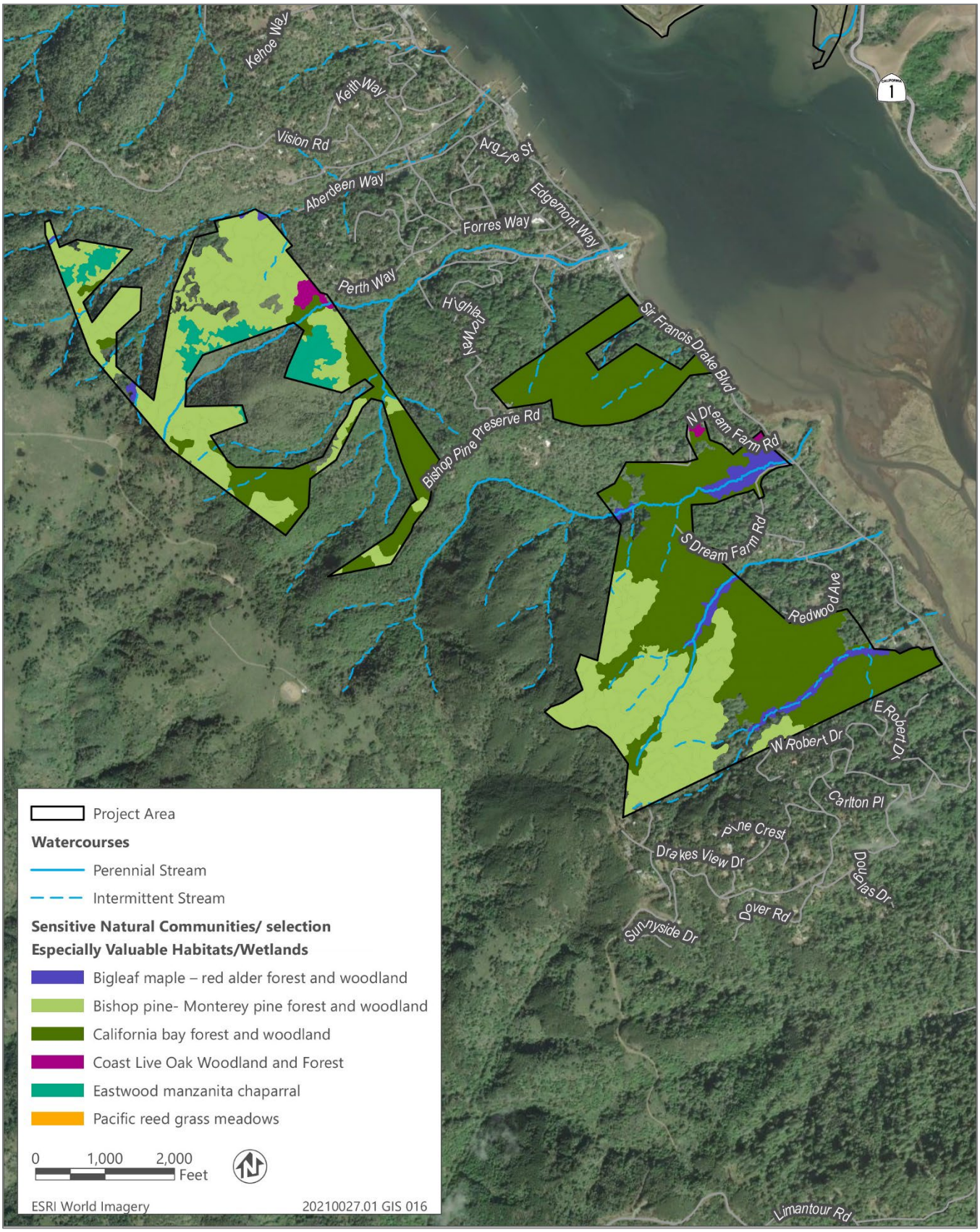
Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.
Known to occur: Species has been documented within the treatment site.

Sources: Calflora 2023; CNDDB 2022a; CNDDB 2022b; CNDDB 2023a; CNDDB 2023b; CNDDB 2023c; CSP 2004; Monarch and Milkweed Mapper 2023; USFWS 2011; USFWS 2021; Xerces Society 2018.



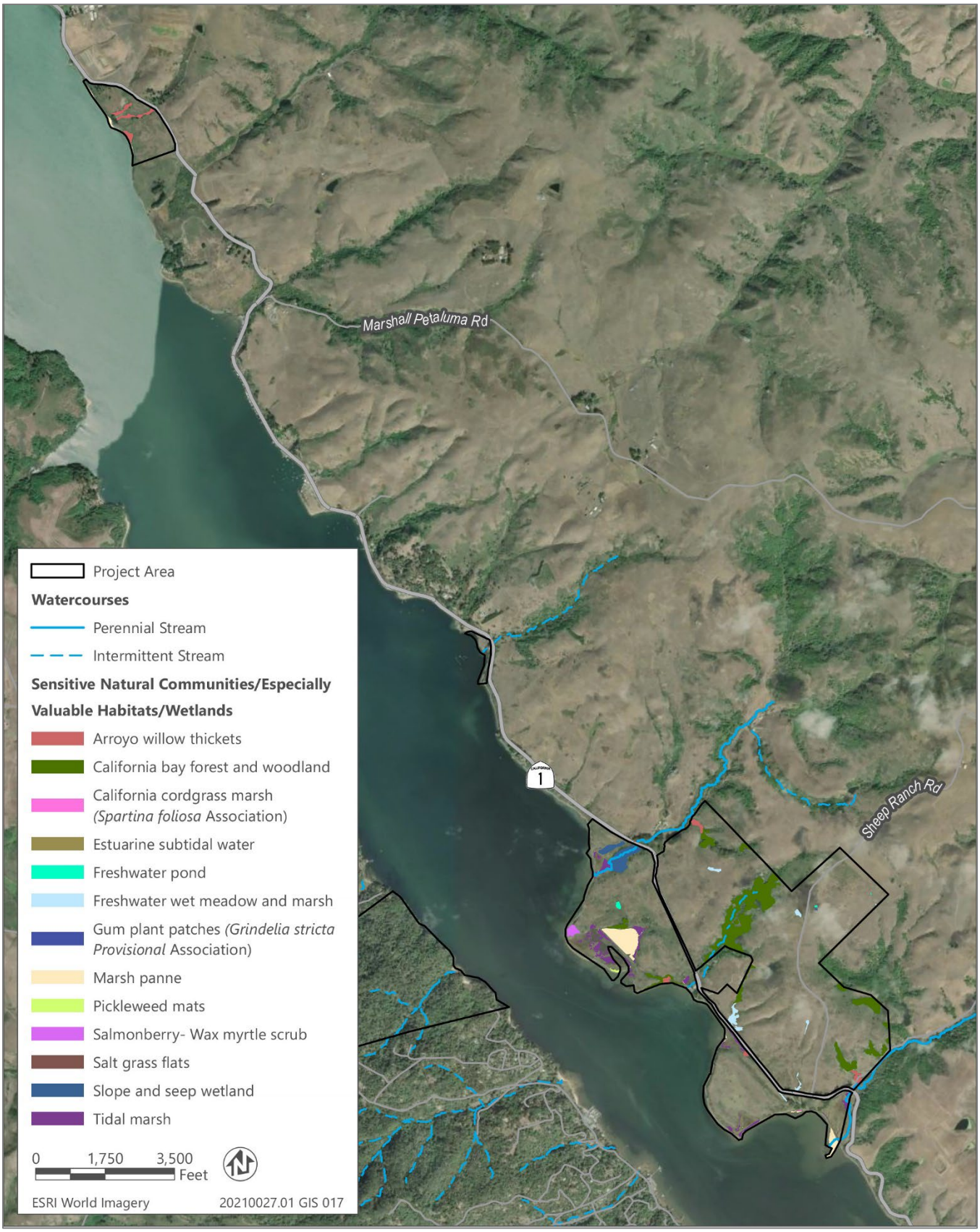
Source: Data downloaded from Golden Gate National Parks Conservancy and SFEI in 2021; adapted by Ascent in 2024.

Figure C-1a Sensitive Natural Communities, Especially Valuable Habitats, and Wetlands within the Project Area



Source: Data downloaded from Golden Gate National Parks Conservancy and SFEI in 2021; adapted by Ascent in 2024.

Figure C-1b Sensitive Natural Communities, Especially Valuable Habitats, and Wetlands within the Project Area



Source: Data downloaded from Golden Gate National Parks Conservancy and SFEI in 2021; adapted by Ascent in 2024.

Figure C-1c Sensitive Natural Communities, Especially Valuable Habitats, and Wetlands within the Project Area

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