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Project Specific Analysis and Addendum to the CalVTP PEIR

Butano State Park Forest Health Project

Prepared for:

California Department of Parks and Recreation – Santa Cruz District

In Collaboration With:

San Mateo Resource Conservation District

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CalVTP ID: 2022-23

Butano State Park Forest Health Project Project-Specific Analysis

Prepared for:

The California Department of Parks and Recreation – Santa Cruz District

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List of Abbreviations

ACB	Air Curtain Burner
ARC	Auten Resource Consulting
ASR	Archaeological Survey Report
BAAQMD	Bay Area Air Quality Management District
CA State Parks	California Department of Parks and Recreation
CAL FIRE	California Department of Forestry and Fire Protection
CalVTP	California Vegetation Treatment Program
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CE	Candidate Endangered
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
CT	Candidate Threatened
CVTS	Coastal Vegetation Treatment Standards
CWHR	California Wildlife Habitat Relationships
CZ	Coastal Zone
CZU	CAL FIRE San Mateo-Santa Cruz Unit
CZU Fire	2020 August CZU Lightning Complex Fire
DBH	Diameter at Breast Height
DFWR	Dusky-footed woodrat
E	Endangered
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESHA	Environmentally Sensitive Habitat Area
ERA	Ecological Restoration Treatment Area
FRAP	CAL FIRE Fire and Resource Assessment Program
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HCP	Habitat Conservation Plan
IAP	Incident Action Plan
IPC	Invasive Plant Council
LCP	Local Coastal Plan
LTS	Less than significant
LTSM	Less than significant without mitigation incorporated
MAMU	Marbled Murrelet
MCV	Manual of California Vegetation
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission

NCCP	Natural Community Conservation Plan
ND	Negative Declaration
NWCG	National Wildfire Coordinating Group
PAD	Planned Agricultural Development
PEIR	Programmatic Environmental Impact Report
PPE	Personal Protective Equipment
PRC	Public Resources Code
PS	Potentially significant
PSA	Project Specific Analysis
PWP	Public Works Plan
RM	Resource Management
RPF	Registered Professional Forester
RWQCB	Regional Water Quality Control Board
SENL	Single Event Noise Level
SFGS	San Francisco garter snake
SMC	San Mateo County
SMC FSVMLD	San Mato Countywide Fine Scale Vegetation Map and Landscape Database
SMRCD	San Mateo Resource Conservation District
SOC	Statement of Overriding Considerations
SOD	Sudden Oak Death
SPR	Standard Project Requirements
SRA	State Responsibility Area
SSC	Species of Special Concern
TMP	Traffic Management Plan
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
VMT	Vehicle Miles Traveled
WDR	Waste Discharge Requirements
WL	Watch List
WLPZ	Watercourse and Lake Protection Zone
WPT	Western Pond Turtle
WUI	Wildland Urban Interface

1.0 Project-Specific Analysis

1.1 Introduction

In the past approximately 150 - 200 years, wildland ecosystems along the western United States have undergone a drastic shift in land management concurrent to changes in climate conditions. Shifts in land management, changing climatic regimes, and land uses have resulted in larger, costlier, and more catastrophic wildfires than in recent history. As a result, communities across California have experienced significant impacts in the wake of larger and more intense wildfires further increasing pressure to manage forests for resiliency and health in the face of changing conditions. There is a growing consensus among land managers, forest ecologists, fire scientists, and Registered Professional Foresters (RPFs) that forested ecosystems in California are primarily overstocked and undermanaged. Changes in disturbance regimes, including fire return intervals, are leading vegetative communities to shift to more fire prone and less fire tolerant. At the same time, the expansion of the Wildland Urban Interface (WUI) is continuing to place human lives and developments in fire-prone landscapes.

In 2019, the San Mateo Resource Conservation District (SMRCD) in collaboration with the California Department of Forestry and Fire Protection (CAL FIRE), the California Department of Parks and Recreation (CA State Parks), Auten Resource Consulting (ARC), and several other private landowners and stakeholders identified priority projects on State Park Lands in the Santa Cruz Mountains to address these issues. With the goal of enacting landscape-scale forest management, projects were identified to reduce the vertical and horizontal continuity of fuels, reduce dead, dying, diseased, and dense vegetation, and implement low intensity disturbance into these wildland systems. During this time, Butano State Park was identified as a priority location due to unhealthy forest characteristics identified by the collaborators, which left it susceptible to disease, wildfire, and shifts in species composition due to the lack of low-intensity disturbance.

In the Fall of 2020, the CZU Lightning Complex fires (CZU Fire) burned 86,509 acres and destroyed 1,490 buildings throughout Santa Cruz and San Mateo counties, exhibiting extreme fire behavior and burning significant vegetation within both coastal counties. One of the dozens of ignition points for this wildfire was located in Butano State Park, which continued to burn vegetation within the park for over a month. The majority of the park experienced variable intensity wildfire throughout the duration of the fire, varying based upon weather, slope, vegetation communities, and suppression tactics. In locations that experienced low to moderate severity fire, significant dead and dying vegetation has been left unconsumed to partially consumed by fire. In areas that burned with high intensity, the vegetative communities may take decades to achieve pre-fire characteristics or may exhibit drastically different plant compositions than were present pre-fire.

In the wake of the CZU Fire, CA State Parks, CAL FIRE, and SMRCD have sought to manage the ecosystems in Butano State Park in a manner that will promote health and resilience. The mission of the California Department of Parks and Recreation is "To 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." For the purposes of this project, this will be accomplished through a combination of ecologically restorative treatment types, shaded fuel breaks, and non-shaded fuel breaks, and treatment activities including prescribed burning, manual and mechanical thinning, and herbicide application. The purpose of these treatments is to reduce the density and continuity of dead, dying, diseased, and overly dense vegetation and

promote biodiverse ecosystems dominated by a mosaic of healthy vegetation representing various size and age-classes.

1.2 CEQA and Coastal Act Compliance

The California Vegetation Treatment Program (CalVTP) is a statewide program by which public agencies perform vegetation treatment activities for the purposes of preventing catastrophic wildfire. The CalVTP Programmatic Environmental Impact Report (PEIR) provides a powerful tool to enable expedited environmental review for projects that both follow the CalVTP treatment guidelines and implement an array of carefully crafted avoidance, minimization, and mitigation actions to ensure that implementation does not result in significant impacts to natural resources. The PEIR was certified in 2019 as a document compliant with the California Environmental Quality Act (CEQA). This PEIR offers an array of permittable vegetation treatments that allow for ecological restoration, forest health treatments, and other vegetation treatments aimed at reducing the risk of wildfire and increasing ecological resilience. Compliance with the PEIR requires preparation and submittal of a Project Specific Analysis (PSA). The PSA must demonstrate how the project will comply with Standard Project Requirements and Mitigation Measures from the PEIR. While the PEIR provides CEQA compliance for an array of forest health and wildfire prevention projects, the San Mateo Resource Conservation District (RCD) Forest Health and Fire Resilience Public Works Program (PWP) is a companion document that provides a programmatic mechanism for Coastal Act compliance for projects covered under the CalVTP PEIR[1] that are within the County of San Mateo. The PWP includes Coastal Vegetation Treatment Standards (CVTS), which provide additional details and design standards for projects within the County's Coastal Zone. This PSA has been designed to address both the requirements of the CalVTP PEIR as well as the PWP, including the CVTS. Responses to the CVTS for this project can be found in Attachment D.

For purposes of CEQA, CA State Parks is the project proponent and acting as the lead agency for the preparation of the PSA/Addendum. The San Mateo Resource Conservation District and the California Coastal Commission (CCC) are both responsible for reviewing the PSA and response to the CVTS and the CCC is solely responsible for determining whether the proposed project is consistent with the PWP. RCD approval will be completed through a resolution by the RCD Board. 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. The PWP clearly articulates the process for both entities to review, determine consistency, and approve the project for coverage under the PWP.

Portions of the proposed project treatment areas extend outside of the CalVTP treatable landscape. In total, the area outside of the treatable landscape constitutes 454 acres of a total of 2,103.6 acres for the entire project area. The areas outside of the CalVTP treatable landscape are dispersed in small, discontinuous patches primarily along the eastern boundary of the project area. Treating these areas will expand the connectivity of ecologically restorative treatments in vegetative and landscape conditions that are essentially the same or substantially similar to those within the treatable landscapes in the Butano State Park boundaries (Figure 1, Table 1). Per the PEIR, if the areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or substantially similar, landscape conditions as the treatable landscape, the environmental analysis of the PEIR would be applicable.

[1] San Mateo Resource Conservation District Forest Health and Wildfire Resilience Public Works Plan (PWP) - https://smrcd-my.sharepoint.com/:b:/g/personal/bryanna_sanmateorcd_org/EQfTQywyF-JNn0Fmw078KYEBXRtSQFPrqgkE1QIHsRCVRQ?e=TXdrIU

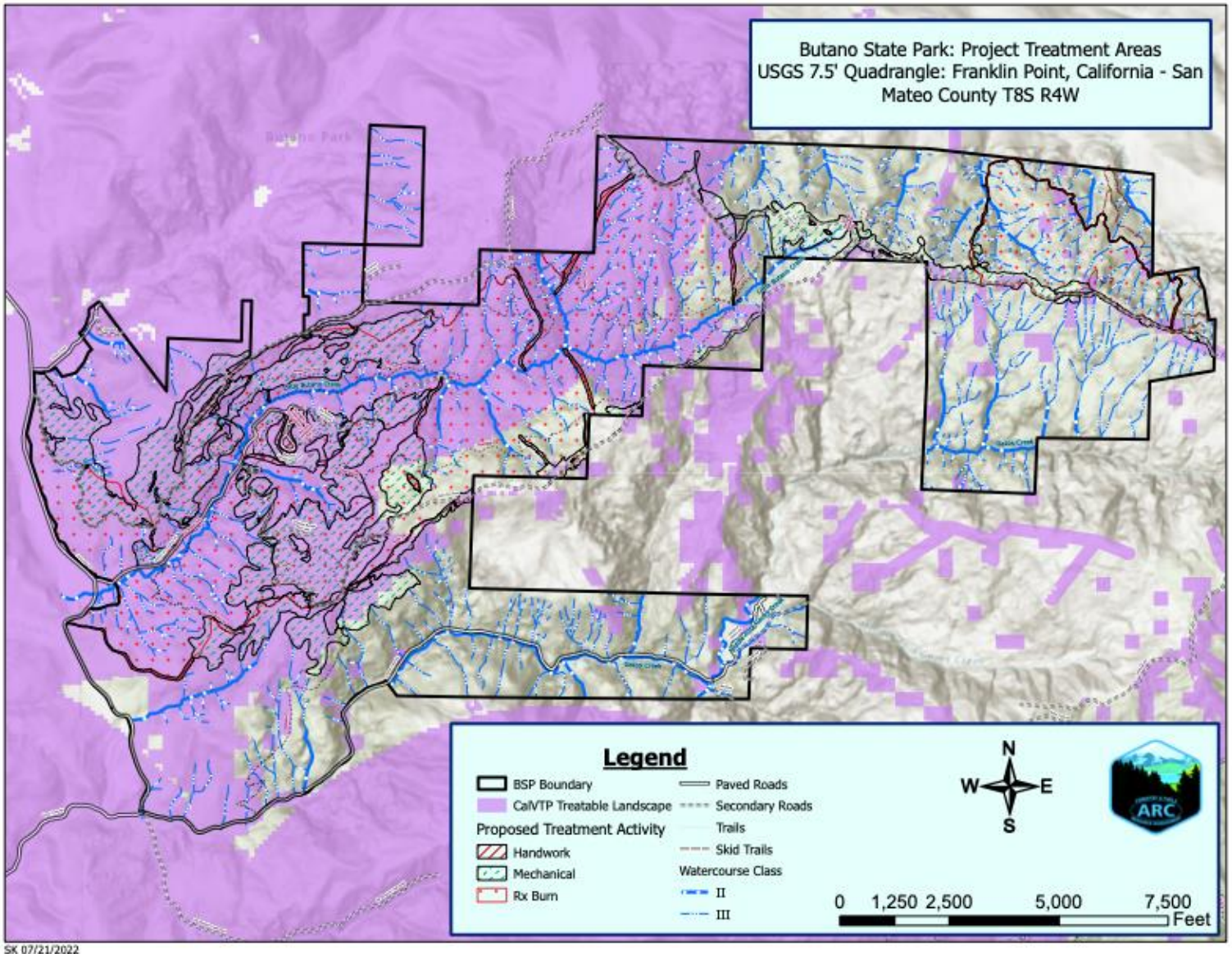

Figure 1. CalVTP Treatable Landscape and Proposed Treatment Activities within Butano State Park

Table 1. CalVTP Treatable Landscape Acreage

CalVTP Treatable Landscape Acreage by Treatment Area Footprint			
	Acres Within the CalVTP Treatable Landscape	Acres Outside of the CalVTP Treatable Landscape	Total Acreage
Treatment Area Footprint	1649.7	454	2103.6
Cal VTP Treatable Acreage by Treatment Activity			
Treatment Activity	Acres Within the CalVTP Treatable Landscape	Acres Outside of the CalVTP Treatable Landscape	Total Acreages
Rx Burn	1421.2	372.8	1793.9
Mechanical	617.3	116.8	734.1
Handwork	30.4	10.9	41.3
Total Activity Acreages	2068.9	500.4	2569.3

As per the PEIR (CalVTP Final PEIR Volume II Appendix PD-1) the treatable landscapes were developed using three Geographic Information Systems (GIS)-based analyses that compared state responsibility area (SRA), applicable treatment types (WUI fuel reduction, fuel breaks, and ecological restoration), and vegetated landscapes dominated by tree, shrub, or grass plant communities. Because this methodology was coarsely applied to the entirety of California, it did not allow high mapping resolution and omitted locations that would otherwise have been included. The lack of mapping resolution for the treatable landscapes was accounted for in the PWP and the entirety of the proposed project area is included for coverage under that document (Figure 2).

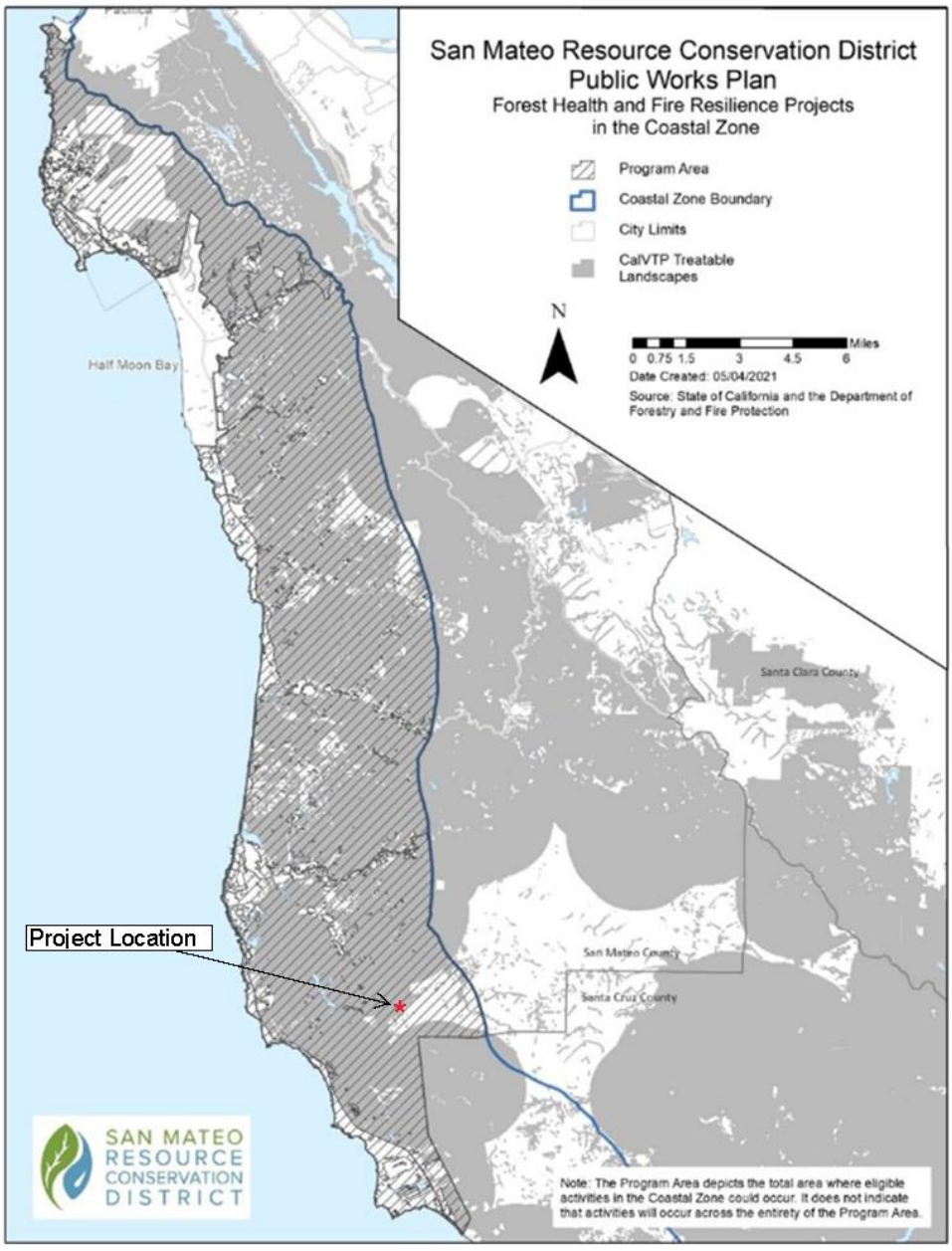

Figure 2. San Mateo Resource Conservation Forest Health and Fire Resilience Public Works Plan (PWP) Boundary

Consistent with CEQA Section 21166 and CEQA Guidelines Sections 15162, 15163,15164, and 15168, an Addendum to an EIR is appropriate when the previously certified EIR has been prepared and changes or revisions to the project are proposed, or the circumstances surrounding the project have changed. This is valid as long as these changes or revisions would not result in any new or substantially more severe significant environmental impacts than were covered in the PEIR. This PSA proposes the inclusion of areas outside of the CalVTP treatable landscape, which constitutes a proposed change or revision to the project, compared to the originally certified PEIR. Each impact analysis in the PSA includes additional specific justification for inclusion of areas outside of the treatable landscape, which support an Addendum to the

CalVTP PEIR. The impact analyses evaluate whether the later treatment project (project proposed for inclusion under the CalVTP PEIR), including an addition of geographic area, would result in significant impacts that would be substantially more severe than those covered in the CalVTP PEIR, or would result in any new impacts that were not analyzed in the PEIR.

1.3 Problem Statement

Shifts in climatic patterns and land use has resulted in distinct changes in vegetated ecosystems in the Santa Cruz Mountains and broader western United States. The relatively frequent, low to moderate intensity disturbance regimes employed by large grazing animals, followed by indigenous people along the central coast of California gave way to a distinct period of fire suppression for more than a century (Greenlee and Langenheim, 1990). This has led to shifts in species composition favoring conifers and a displacement of hardwoods and sensitive plant species relying on distinct ecological niches. Ultimately this has led to a reduction in habitat quality and biodiversity and a plant community composition that favors fire-intolerant species assemblages. As plant community composition has shifted, resulting in increased fuel loads from altered fire regimes, simultaneous shifts in land-use patterns and climatic conditions have resulted in larger and more catastrophic wildfires; ultimately with significant impacts to plant and animal community composition. These chronic and acute impacts to ecosystems require landscape-scale, ecologically driven solutions in forest and ecosystem management, with goals of promoting landscapes and plant communities that are resistant and resilient to disturbance.

In August and September of 2020, the CZU Fire burned 86,509 acres and destroyed 1490 buildings throughout Santa Cruz and San Mateo counties, exhibiting extreme fire behavior and burning significant vegetation within the Coastal Zone of both counties. The high intensity fire experienced in many shrub and forest stands resulted in significant mortality of the dominant vegetation and habitat losses. Due to the release of dormant seedbanks and post-fire successional processes, these ecosystems may exhibit drastically different plant community compositions than were present pre-fire and may take decades to achieve comparable ecosystem services.

Although wildfire is often a beneficial and natural ecological process, the exclusion of fire through systematic fire suppression and simultaneous passive management of wildland systems, has led to a shift in fire regimes towards infrequent high intensity wildfire and the inability of natural systems to cope with this disturbance. Within coast redwood systems in the Santa Cruz mountains, fire return interval (FRI) is estimated to be between 15 – 60 years (Stephens and Fry, 2005; Russell and Jones, 2015). Additionally, because coast redwood systems were not typically the focus of indigenous burn practices, FRI for coastal oak woodland, coastal scrub, coastal prairie, meadow, and mixed evergreen stands are expected to be shorter. Under the current management regime, prior to the CZU Fire, many systems had not burned in over 100 years. Periodic, variable intensity disturbance fosters biodiversity at a micro and macro scale, creating and maintaining suitable conditions for diverse plants, animals, and fungal networks, while maintaining healthy watersheds and ecosystem functions. In contrast, frequent high intensity wildfire can result in homogenous plant communities dominated by early succession species and plant community compositions incapable of providing necessary ecosystem functions. Finally, the exclusion of wildfire, or a fire surrogate, can result in vegetation conversions favoring fire-intolerant woody species with the ability to outcompete slower growing fire-tolerant species.

CA State Parks manages roughly 4,700 acres of land in southern San Mateo County at Butano State Park. Although significant portions of Butano State Park experienced varying intensity wildfire during the 2020 CZU Fire, the park retains ecologically important and resilient forest, grassland, and shrubland characteristics.

Aside from the most recent wildfire, the forested stands of the park were predominantly passively managed since 1957 when the land was acquired for protection, with fire systematically excluded and prevented within the park. The results of this passive management approach are forested landscapes exhibiting severe overstocking, primarily in understory and mid-range diameter trees. Furthermore, historic grassland and shrubland plant communities within the park, once rich with biodiversity, have converted into plant communities dominated by invasive species or homogenous native species, lacking in the diversity required to sustain sensitive wildlife.

1.4 Goal Statement

Building upon recently completed projects on an adjacent private property, the goal of the Butano State Park Forest Health Project is to ecologically restore forest and shrubland conditions to exhibit an increase in healthy growth of mature vegetation while allowing for natural regeneration of understory plant species. Broadly, this will be accomplished by modifying vegetation to break the vertical and horizontal continuity of fuels, reduce ladder fuels and associated fire hazard, and promote healthy compositions of native plant species.

Goals based upon broad plant community composition are listed below:

- Within coastal grasslands, this project seeks to maintain and improve the quality of grassland ecosystems within the park through the removal of encroaching shrubs and conifers as well as encouraging the persistence of perennial native grasses.
- The goal within forested ecosystems is to establish an open, healthy, and diverse understory by allowing increased penetration of sunlight to the forest floor, the facilitation of forest gaps, the removal of dead, dying, diseased, and overly dense vegetation, and thinning of small diameter or codominant trees, while retaining key habitat features such as snags and large wood on the forest floor. The target understory composition will consist of diverse herbaceous species, as well as appropriately spaced shrubs to further fire resilience goals and provide critical cover for wildlife species. Remaining trees will experience an increased access to resources, greater carbon sequestration, and increased growth rates.
- Within coastal oak woodland habitats, encroaching Douglas-firs will be thinned to maintain appropriate hardwood species compositions, which rely on periodic disturbance to limit competition of shade-tolerant conifers (Cocking et al., 2012).
- Mixed chaparral stands towards the ridges of the park, which experienced high intensity wildfire, will be allowed to reestablish naturally post-fire with the goal of maintaining pre-fire vegetation alliances. These stands will ideally be maintained in the future through prescribed fire as determined necessary by California State Park biologists and botanists.
- Coastal scrub habitats towards the lower elevation portions of the park will be maintained through the thinning of encroaching Douglas-firs as well as prescribed fire and mechanical mastication to achieve target densities and promote a mosaic of diverse shrub communities.

Broadly, these goals will be accomplished by implementing ecologically appropriate disturbance regimes through the use of prescribed fire or fire surrogates such as mechanical mastication or hand thinning that are tailored towards each site-specific plant community, while maintaining characteristic species assemblages and densities as defined in the Manual of California Vegetation

This project supports the intent of CAL FIRE's Forest Health Program goals, California's climate goals, and the goals of the California Coastal Commission (CCC) by:

- Improving the health and resiliency of private and public forestlands (CA Forest Carbon Plan goal);

- Promoting GHG emission reductions through forest management (CA Natural and Working Lands Implementation Plan);
- Proactively sequestering and reducing Greenhouse Gas (GHG) emissions through immediate actions and long-term maintenance (Global Warming Solutions Act of 2006) by encouraging long term storage in forest trees and soils through the reduction of dense understory thus promoting healthier stands of mature trees;
- Minimizing the loss of forest carbon from large, intense, wildfires through the reduction of ladder fuels and shrubs resulting from years of fire suppression;
- Promoting public safety, health, and welfare, and protecting public and private property, wildlife and the natural environment, by protecting the ecological balance of the coastal zone and preventing its deterioration and destruction (California Coastal Act, 30001 l);
- Protecting, maintaining, and, where feasible, enhancing and restoring the overall quality of the coastal zone environment and its natural and artificial resources (California Coastal Act 30001.5 (a));
- Ensuring orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state (California Coastal Act, 30001.5 (b).

1.5 Project Site

Butano State Park is a state-managed recreational property containing hiking, camping, and day-use facilities, as well as other areas utilized by the public. Mechanized treatments and prescribed broadcast burning may occur along roads, trails, and other areas utilized by the public and may require trail closures for public safety. Trail closures will be minimized to the greatest extent practicable to maintain as much public access as possible while promoting public safety.

1.6 Project Location

Butano State Park is located in southern San Mateo County, California approximately 4 miles southeast of the town of Pescadero and approximately 3 miles east of Highway 1, situated in a part of the Santa Cruz Mountains that encompasses land within and outside of the Coastal Zone (Figure 3). From the town of Pescadero, Butano State Park can be accessed from its main entrance along Cloverdale Road and from Highway 1, Gazos Creek Road can be taken to connect with the same park entrance along Cloverdale Road. Adjacent lands are predominately privately owned, however, Butano State Park is in close proximity to other public lands, such as Pescadero Creek County Park, Big Basin Redwoods State Park, and Año Nuevo State Park.

The total project area evaluated in the CalVTP PSA encompasses ~4,630 acres within Butano State Park, however, initial and maintenance treatments are proposed to occur over 2,103.6 acres of the park. As funding becomes available in the future additional treatment areas may be proposed and amended through subsequent PSA and PWP approvals.

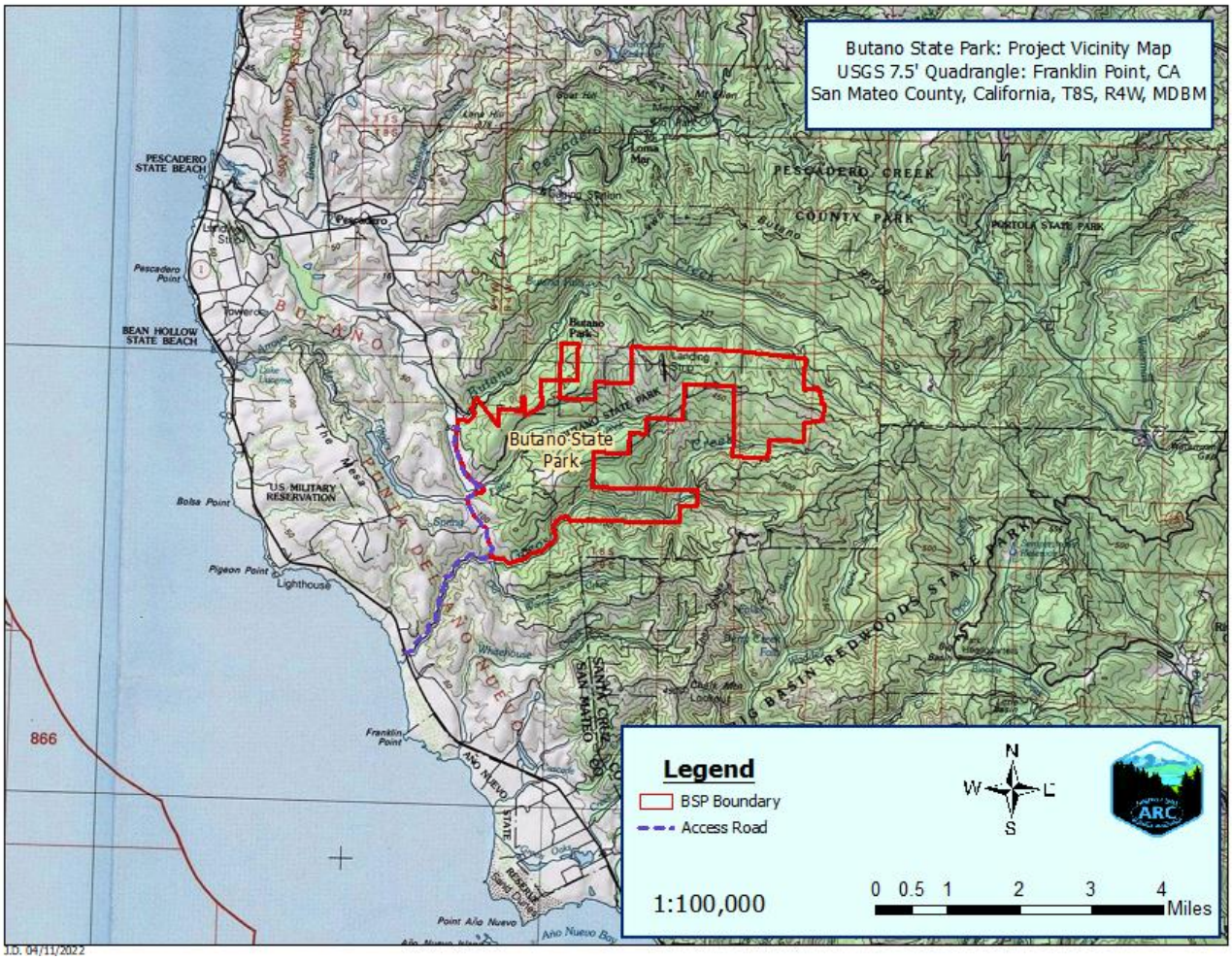

Figure 3. Butano State Park Property Vicinity Map

1.7 Butano State Park Ecosystem Conditions

Butano State Park exhibits many unhealthy ecosystem characteristics. In the lower portions of the park, what was once diverse coastal grassland has been plowed, grazed, reseeded with annual invasive grasses, and has eventually converted to shrublands in the subsequent absence of disturbance (fire, grazing, etc.) Furthermore, areas that were once historically shrublands are converting into Douglas-fir (*Pseudotsuga menziesii*) tree dominated transition zones, and areas that persisted as hardwood-dominated due to frequent – low-intensity disturbance are quickly being converted to Douglas-fir stands due to the species' ability to germinate in low light conditions and both pierce and overtop the existing hardwood canopy (Cocking, et al., 2012). Finally, historic old-growth coast redwood stands were heavily logged in the late 19th and early 20th centuries and now primarily consist of second-growth coast redwood and Douglas-fir, exhibiting overstocked stand densities and lacking diverse understory assemblages. Each of these distinct plant community shifts has resulted in unintended consequences to the plant and animal species that rely on them. As a prime example, the Butano State Park General Plan, drafted in 2008, lists the California oatgrass grassland as a sensitive natural community within the park. However, during protocol-level botanical surveys performed in the Summer of 2022 (Attachment F), California State Park Senior Environmental Scientist (Specialist)/Botanist, Tim Hyland, found no evidence that California oatgrass (*Danthonia californica*) was present within the historic distribution. According to the Manual of California Vegetation, *D. californica*

persists based upon a short to medium fire return interval (5 to 30 years), with indigenous peoples routinely burning stands to enhance seed and bulb production (CNPS, 2019; Anderson, 2005). A lack of fire or appropriate fire surrogate has resulted in encroachment of woody species including coyote brush and Douglas-fir in what was historically coastal grassland. On a regional scale, mismanagement of wildland systems and fire suppression have led to a homogenization of plant communities. Historical photos of the central coast depict a landscape with a mosaic of grassland, shrubland, and forested plant communities.

Past land uses throughout the park have created numerous distinct shifts in vegetated communities. Pre-European indigenous management, utilizing prescribed fire, gave way to logging, grazing, and ultimately acquisition by the California Department of Parks and Recreation in 1957. Upon shifting ownership to California State Parks and predominantly passive management of vegetation, the previously logged and heavily grazed homestead sites dotting the drainage quickly revegetated into dense, even-aged stands of Douglas-fir (Figures 4 and 5). Under indigenous land management regimes typical of pre-European influence, fire would have been incorporated into the landscape on a frequent basis (<15 – 60 years), limiting competition of less fire tolerant species (e.g. juvenile Douglas-fir and tanoaks) and favoring persistence of coast redwoods, fire tolerant hardwoods, and mature Douglas-firs (Greenlee, 1983; Stephens and Fry, 2005; Jones and Russell, 2015).

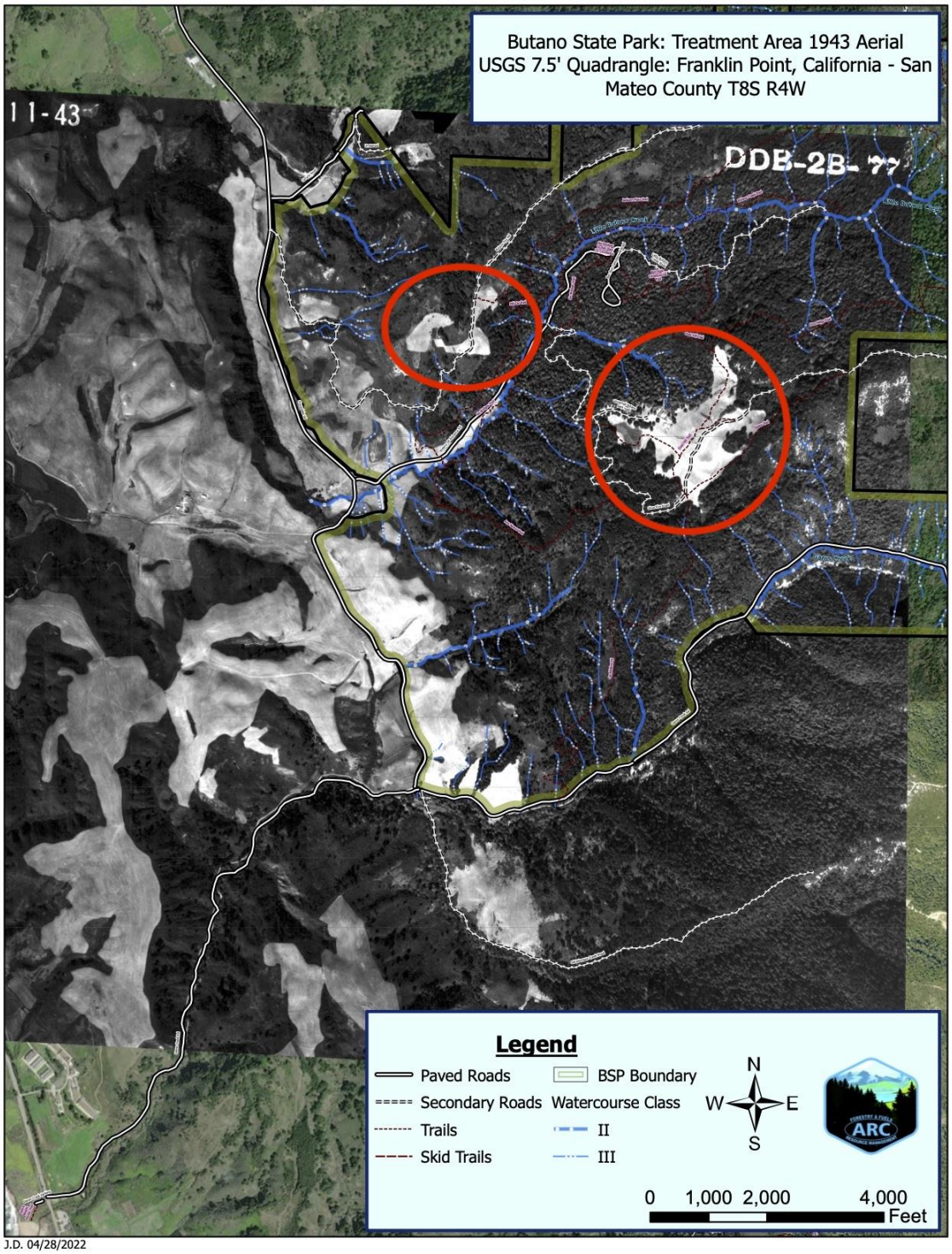

Figure 4. Butano State Park – Aerial Imagery from 1943 with notable sites cleared for homesteading activities including grazing.

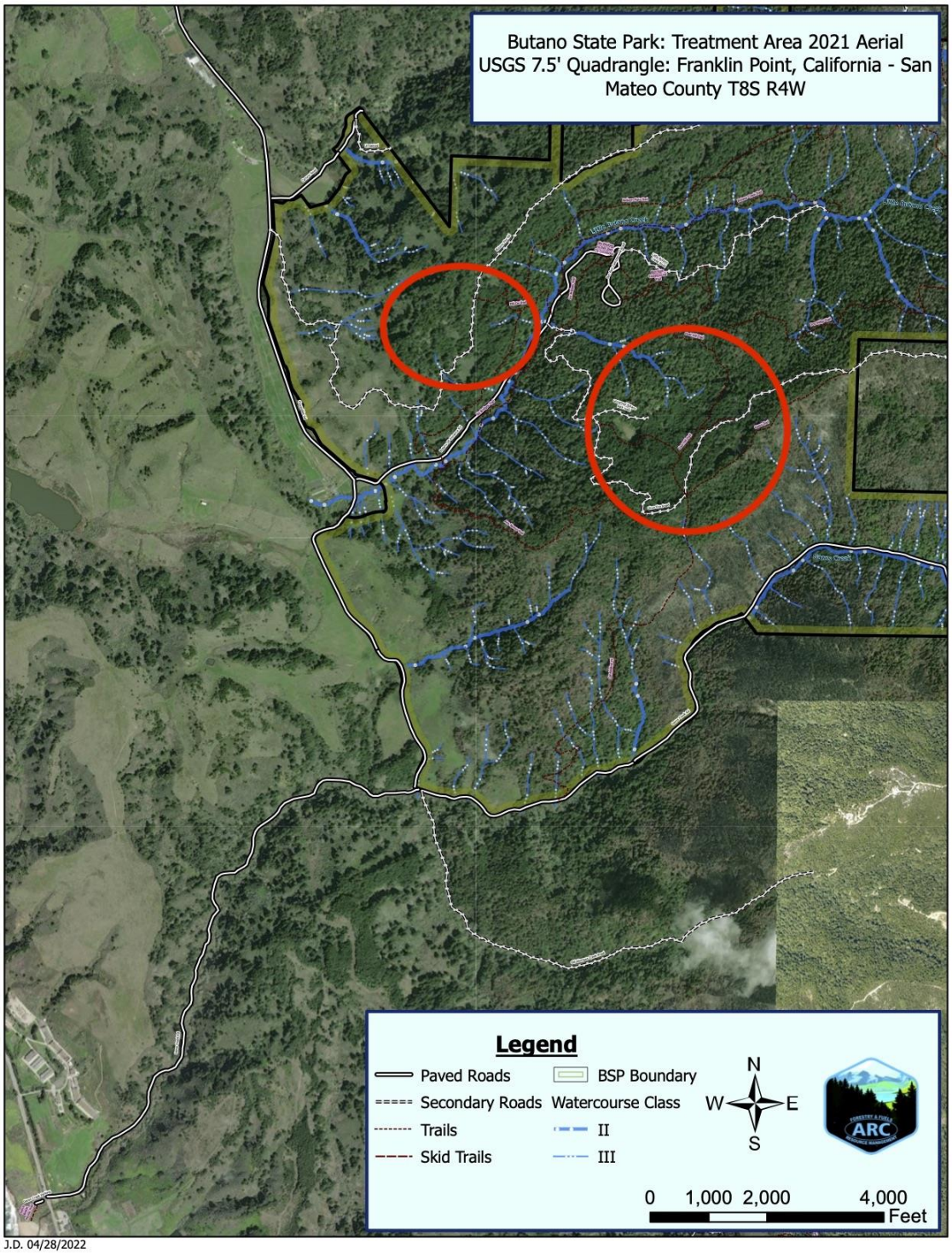

Figure 5. Butano State Park – Aerial Imagery from 2021 with the same cleared locations circled in red. Following acquisition by the California Department of Parks and Recreation, both cleared locations revegetated with dense stands of even-aged Douglas-fir.

During the CZU Fire, southwest facing slopes of the Butano watershed and Butano State Park experienced high intensity fire, burning through stands of knobcone pine (*Pinus attenuata*) and manzanita (*Arctostaphylos spp.*), as well as old-growth and second-growth stands of Douglas-fir and coast redwood (*Sequoia sempervirens*). Throughout the approximate month that the fire burned within the drainage, it slowly backed west through the park continuing to burn at a low to moderate intensity, effectively killing vegetation without consuming the biomass, ultimately leaving behind an understory composed of dead shrubs and small diameter trees (Figure 6). In overly dense stands, capacity for growth is allocated to many small trees that make up the overstocked forest and understory. When these small trees in the understory are thinned out (i.e., trees less than or equal to 16 inches DBH), this growth is released to the remaining stand of larger trees, increasing their diameter growth at greater rates, thereby promoting increased carbon storage (Vernon et al., 2018). Conversely, areas throughout the park that did not burn have not experienced a significant disturbance event since the park was acquired in the mid-1950s (California Department of Parks and Recreation, 2008). These locations maintain severely overstocked forest stand characteristics where historic grasslands or oak woodlands have converted to even-aged stands of Douglas-fir in the absence of fire or grazing (Figure 6). In these locations, thinning overly dense vegetation can mimic the effects of a wildfire by minimizing competition among healthy vegetation and breaking vertical and horizontal fuel continuity, while modifying the vegetation into a manner that will aid in decomposition rates and nutrient cycling. Additionally, by reducing canopy density of the overstory tree layer, increased sunlight penetrating the forest surface will facilitate understory growth and diversity. Lastly, through the temporary reduction in understory fuels, the CZU Fire has afforded CA State Parks and CAL FIRE the unforeseen and unprecedented opportunity to reincorporate low intensity fire into the Park's management regime through the use of prescribed fire, utilizing the various roads and trails throughout the park, as well as proposed mechanical and manual understory treatments as new or improved control lines. This temporary reduction in understory fuels, both within and outside of designated burn plots, can facilitate the safer reintroduction of prescribed fire.

Figure 6. Butano State Park – High density of dead and dying vegetation following the CZU Fire (left). Butano State Park – Dense even-aged stand of Douglas-fir in a location that was heavily cleared in the first half of the 20th century (right)

The majority of Butano State Park is dominated by the coast redwood alliance, Douglas fir – tanoak alliance, and tanoak alliance, with components of knobcone pine alliance, mixed chaparral, coastal scrub, California grassland, wet meadow, and riparian habitats. Manual and mechanical treatments will primarily occur in Douglas-fir and redwood forests, with treatments focused on reducing competition among remaining trees, removing ladder fuels, while ensuring that existing alliance compositions are maintained per the Second Manual of California Vegetation (MCV).[2] The Douglas-fir – tanoak forest alliance requires 25-60% cover of both species in the overstory and the redwood forest alliance is described as >50% relative cover by coast redwood of the dominant canopy layer, with subcanopies composed of dominant or co-dominant hardwood species. Handwork, mechanized, and prescribed burning treatments are all designed to target these species compositions.

Handwork treatments will be focused on locations either surrounding sensitive park infrastructure or on slopes exceeding 40% and where the establishment of control lines will support a factor of increased safety for California State Parks and CAL FIRE to conduct prescribed burning operations in the future. The majority of manual and mechanized treatments will focus on removing dead, dying, diseased, and dense vegetation, discussed further in sections 2.1.1, "Treatment Specifications" and 2.5.2, "Manual Treatments", below. Prescribed broadcast burning is proposed to occur on various slopes, with the goal of reestablishing fire return intervals that will maintain and restore desired species compositions, densities, and maintain systems into an uncertain climatic future. As described in the PEIR (CalVTP Final PEIR Volume 2 Section 3.17, p. 4) manual and mechanical treatments in conjunction with prescribed fire, or prescribed fire independent of other treatments, have been shown to effectively reduce wildfire severity with positive or neutral impacts on ecosystem ecology (Winford et al., 2015).

Treatment prescriptions are designed to modify vegetation to disrupt fuel continuity, reduce ladder fuels and associated fire hazard, and promote healthy compositions of native plant species and forest stands. This will provide myriad benefits including promoting the health and resiliency of retained vegetation, providing strategic locations for prescribed fire and creating an opportunity for future fire suppression activities, as well as potentially positively impacting the behavior of future wildfires.

2.0 Project Description

Mechanical mastication as well as hand thinning will be utilized to treat dead, dying, and diseased vegetation, select live trees up to 16 inches in DBH, select live Douglas-fir trees up to 36 inches DBH (where they are converting grassland, shrubland, or hardwood forest habitat types through shading), understory vegetation, dead or downed material, and hazard trees of any size. Based upon site-specific characteristics, these treatments areas will benefit from a reduction in hardwoods (tanoak, Pacific Madrone, and oak species) and coast redwoods up to a larger diameter, which occur at high densities following logging in the late 1800s and early 1900s. However, 16 inches was chosen as the optimal DBH due to cost and equipment constraints associated with biomass disposal of larger vegetation. Vegetative material under 8 inches in diameter can be processed with mechanical masticators and most commercial tracked or wheeled chippers. Vegetative material between 8 inches to 16 inches will require hand falling using chainsaws, which increases the cost per acre of treatment, however, material can still be processed using most commercial tracked or wheeled chippers. Finally, vegetation over 16 inches in diameter will require skilled timber fallers using chainsaws, as well as larger and costlier equipment to either ship the material off site, or process material on site. For this reason, aside from trees that pose a hazard risk to crews, only Douglas-fir trees greater than 16 inches in diameter are proposed to be removed for this project.

[2] Requirements to maintain membership rules at an alliance level under the 2nd edition of the Manual of California Vegetation coast redwood and Douglas-fir alliances.

Mechanized treatments will occur predominantly on slopes less than 40% and averaging 30% throughout the project site. Operations may occur on slopes greater than 40% when traveling between treatment areas. Understory vegetation, brush, and shrubs under the drip lines of trees shall be cut and masticated leaving root systems intact for resprouting. All debris and material left by masticating equipment will be scattered throughout the treatment area. Manual treatment may include the use of chainsaws and/or other various hand mechanized or hand tools to prune trees and woody vegetation, buck (meaning to cut into smaller sizes and lengths) downed debris and materials, and to treat dead, dying, and diseased trees. Manual treatments may occur on slopes greater than 40% or where access of mechanized equipment is infeasible. Mechanized and hand treatments are planned to occur on 734.1 acres, with 41.3 acres delineated specifically for handwork due to slope and access. As part of a CAL FIRE Forest Health Grant for the project, awarded in 2021, 391 acres of mechanized treatment and 29 acres of hand treatment are expected to occur between 2022 and 2024. The remaining 343.1 acres of mechanized and 12.3 acres of hand treatment will occur as funding becomes available throughout the lifespan of this document. Additionally, prescribed broadcast burning and pile burning will be used to achieve similar treatment prescriptions, as described above. Broadcast burning will be used irrespective of localized-scale variations in slope and will aim to reimplement appropriate fire return intervals on 1,793.9 acres of Butano State Park. Pile burning will be utilized as a means of biomass removal in locations that are inaccessible to mechanical equipment. Presently, prescribed burning is not funded for implementation; burning operations will occur as funding and conditions allow over the lifespan of this document. Finally, herbicides may be used to prevent the spread and re-sprouting of exotic invasive species within the treatment areas, predominantly along roads and other high-trafficked locations. Herbicide use is expected to occur on less than approximately 5 acres of treatment area and will be utilized as-needed following initial and maintenance treatments.

2.1 Treatment Specifications

- Removal of dead, dying and diseased trees and select live trees less than or equal (≤) to 16 inches Diameter at Breast Height (DBH);
    - Healthy trees to be retained less than 16 inches DBH should achieve a 10-20 foot spacing where feasible.
    - Where there are only stands made up of trees less than 16 inches DBH in the project area, these stands of smaller trees will be spaced approximately 10-20 feet apart to develop and maintain shaded fuel breaks.

- Removal of select live Douglas-fir trees greater than 16 inches DBH and less than or equal to 36 inches DBH may be removed where they are converting grassland, shrubland, or hardwood forest habitat types through shading described further in section 2.5.2, "Manual Treatments", below.

- Cutting and chipping of understory ladder fuels and shrubs, leaving root systems intact for resprouting;

    - Where cutting and masticating vegetation in shrub-dominated plant communities, root systems will be left intact to allow for resprouting. Additionally, within stands of shrubs within specified treatment polygons, a minimum of approximately 35 percent retention and a target of approximately 50 percent retention will be left in a mosaic pattern to maintain a varied level of habitat continuity throughout the polygon. Within these plant communities shrubs will be retained in clumps or shrub islands

- Chipping and mastication of dead and downed trees less than 16 inches DBH;
    - Where downed woody debris greater than 16 inches diameter may be masticated for access around treatment areas but, should remain in place where feasible unless they create a significant fire hazard and shall be separated by at least 10 feet from any other logs and left on site

- Removal of trees greater than 16 inches DBH if they are a public safety hazard, dead or dying, irreversibly diseased, substantially damaged, or an invasive exotic, unless they are otherwise protected;

- Vegetation outside of the drip line of retained trees and shrubs shall be cut and masticated leaving root systems intact for resprouting to achieve a horizontal crown separation of approximately 50-100 feet between stands and individual plants depending on site specific characteristics, with approximately 10 percent retention per acre, and dependent on slope or proximity to key infrastructure assets. Patches will be retained across the treatment area to break long sight distances and provide adequate cover for wildlife (Strong and Bevis, 2016).

- Pruning of trees to a height of 8-12 feet but never more than 50% of the live crown;

- Mastication limited to the cutting or chopping of above-ground vegetation with the intent of keeping masticating heads out of duff layers and minimizing direct disturbance to subsurface soil layers, allowing intact root systems to resprout and minimizing impacts to burrowing wildlife;

- Spreading of residual masticated material uniformly and not exceeding an approximate depth of six inches with an average of approximately three inches; and

- Cutting stumps, no higher than 6 inches above the ground and maintaining a smooth, flat appearance.

- To maintain habitat function for wildlife, including special-status species, the following features would be retained within all treatment areas:
    - Healthy hardwoods greater than 16 inches DBH;
    - Healthy conifers greater than 16 inches DBH, with appropriate canopy spacing, unless circumstances described below in Section 2.5.2 – Manual Treatments apply;
    - Downed woody debris in strategic locations to maintain forest floor complexity while reducing fuel connectivity;
    - California buckeye (*Aesculus californica*), California nutmeg (*Torreya californica*), California Big leaf-maple (*Acer macrophyllum)*, western sycamore (*Platanus racemose*), box elder (*Acer negundo var. californicum*), and all hydrophytic plant species (e.g., sedges [*Carex spp*.], rushes [*Juncus spp*.], western azalea [*Rhododendron occidentale*], and ferns [*Pteridophyta*]);
        - Red elderberry [*Sambucus racemose*] and blue elderberry [*Sambucus cerulea*], except where high concentrations of these species in the understory obstruct

achieving fuel reduction goals, these areas should be identified by California State Parks, SMRCD, or their designee.
    - California hazelnut (*Corylus cornuta*) may be treated but crowns should be spaced out approximately 25 – 100 feet depending on their frequency per acre, steepness of slope related to where they could exacerbate fire behavior, or proximity to key infrastructure and assets;
    - Micro stands of untreated oak trees with a cluster radius of approximately 25 feet (50-foot diameter);
    - Micro stands of oaks should be spaced approximately 75-100 feet apart depending on the steepness of slope related to where they could exacerbate fire behavior, or proximity to key infrastructure and assets; and
    - Chapparal vegetation at a minimum of approximately 35 percent and a target of 50 percent in any chaparral-dominated area within a treatment polygon in a mosaic pattern of patches or shrub islands, to maintain a varied level of habitat continuity throughout the polygon.

- Broadcast burning and pile burning will be utilized as a means of biomass removal and to reimplement appropriate fire regimes, and reduce continuity of dead, downed and overly dense fuels.
    - Broadcast burning will be implemented utilizing predetermined burn plans and under the guidance of California State Park certified Burn Bosses (see section 2.3.3, "Prescribed Fire" and 2.5.3 "Prescribed Burning Treatments").
    - Accelerants may be utilized to facilitate ignition of fuels.

- Herbicides may be used to prevent the spread and re-sprouting of exotic invasive species within the treatment areas, predominantly along roads.
    - All herbicide applications will be applied directly by hand via cut stump, spot, or foliar spray.

Figure 7. Example photo of retained oaks and pockets of shrub vegetation in a mosaic pattern. Photo taken immediately following mastication in Fall 2021. Huddart County Park.

Figure 8. Example photo of retained pockets of chaparral vegetation as well as resprouting, treated vegetation following mastication. Area masticated in Fall 2021 and Photo taken in Spring 2022. Huddart County Park.

Figure 9. Example photo of resprouting vegetation following hand treatments and broadcast woodchips. Area treated in Fall 2021 and photo taken in Spring 2022. Girl Scouts of Northern California – Camp Butano Creek.

Figure 10. Example photo of retained and resprouting vegetation following mastication. Area treated in Fall 2021 and photo taken in Summer 2022. Wunderlich County Park.

Figure 11. Example photo of retained pockets of understory shrub vegetation (right side of photo), resprouting shrub vegetation (left side of photo), and large woody debris (foreground). Area treated in Spring 2022 and photo taken in Fall 2022. Wunderlich County Park.

2.2 Project Justification

Building upon pre-existing collaborative relationships between the SMRCD, CA State Parks, CAL FIRE, and ARC, Butano State Park has been identified as a high priority location for forest health treatments due to the park's significant forest health impairments and potential for restoration activities. Following the 2020 CZU Fire, many of these impairments have been further exacerbated by the high accumulation of dead and dying understory vegetation and trees now prevalent throughout the park. Furthermore, due to severe drought, lack of fire in the lower elevations of the park, and past land-use history, many locations throughout the park contain forest, shrubland, and grassland ecosystems, which are vulnerable to changing climatic regimes and the subsequent variable forms of disturbance that follow, including catastrophic wildfire, drought, and pest and pathogen infestations. The results of these cumulative impacts are disproportionate amounts of dead and dying understory vegetation, dense even-aged stands of Douglas-firs in areas that were once coastal grasslands and shrublands, and the relatively rapid loss of remaining, and heavily impaired, grasslands present in the lower elevations of the park. The ecologically restorative treatments proposed for this project build upon the opportunity presented by the reintroduction of fire into the park (CZU Fire), as well as similar completed regional projects, by reintroducing targeted, ecosystem driven forest health treatments with the goal of promoting a mosaic of vegetation types, increasing the health and development of large overstory trees and the species that rely on them, and ultimately promoting a landscape equipped to adapt and persist with a changing climate.

In 2019, significant planning by California State Parks, San Mateo RCD, and Auten Resource Consulting was devoted to developing a ~375-acre forest health project, building upon a regional plan to reintroduce targeted disturbance within the Santa Cruz Mountains. Following the CZU Fire, the park was reevaluated and the project footprint expanded to ~420 acres and was included as part of a CAL FIRE Forest Health Grant. During subsequent project scoping, field verification, and ongoing conversations with CA State Parks it was

decided to expand the project to include larger areas of the park and incorporate a suite of management tactics with the hope of developing a broader comprehensive forest and ecosystem management scheme for the park. Treatments were developed by first identifying impaired ecosystem conditions and then analyzing the sensitive resources located within them (e.g., watercourses, steep slopes, sensitive plant and animal communities, etc.). Significant field time was dedicated to verifying these resources, access points, and impaired conditions for treatment. Over the course of a year or more, treatment types and locations were identified, discussed, and prioritized, ultimately culminating in a varied and comprehensive management scheme with the overarching goal of thinning dead, dying, diseased, and overly dense vegetation, and reimplementing targeted disturbance within the park.

Butano State Park represents just one location and property owner within a regional landscape of forest, grassland, and shrubland ecosystems that could benefit from restorative treatments. Building upon the successes of similar, smaller projects, this project will serve as CA State Parks and the SMRCD's first step in promoting ongoing management on a landscape scale following the CZU Fire. Similar to project planning on a small scale, prioritization is occurring on a regional scale to identify priority landscapes for treatment, while taking into consideration ecological restoration, sensitive resources including both biological and anthropological, as well as the economic realities of planning, permitting, and ultimately implementing projects such as these.

Prior to the CZU Fire, vegetation within the park was too dense for land managers to safely implement prescribed fire and achieve target fire behavior. By temporarily reducing understory vegetative fuel loads throughout portions of the park, the CZU Fire has afforded CA State Parks with an unforeseen opportunity to reincorporate fire under prescribed settings for the benefit of both the ecological resources of the landscape as well as hazardous fuels reduction. Building upon the effects of the fire, manual and mechanical treatments would further help reduce fuel loads, specifically along key infrastructure, such as Butano and Olmo Fire Roads, and the ridgetops surrounding the interior portions of the park and drainage. Through the manual and mechanical manipulation of fuels in strategic locations, CA State Parks, CAL FIRE, and the SMRCD will increase opportunities to conduct prescribed broadcast burning through larger areas of the park over the next decade or more. Prescribed burn plots, or burn units, will be subdivided along preexisting abiotic features such as roads, trails, drainages, or other locations that represent a barrier to fire spread. In locations where there are no preexisting barriers, control lines will be implemented using manual and mechanical treatments to further compartmentalize the park into treatment units. Control lines will be established through a combination of vegetation removal and scraping of the duff and litter layer to bare mineral soil. Burn units will be assigned treatment prescriptions that consider goals for the burn, expected fire behavior, available resources, weather parameters (relative humidity, wind direction and speed, temperature, etc.), as well as tactics for ignition. These varied considerations will dictate the decisions land managers must make on when and where to reimplement fire and under what settings.

In addition to providing immense ecological benefit, these treatments also create opportunities for CAL FIRE and other fire suppression agencies to make informed decisions on when, where, and how to employ firefighting tactics in the event of the next wildfire. With preexisting control lines and locations with reduced fuel loads, fire suppression agencies may be afforded the opportunity to minimize significant ground disturbing activities should conditions afford it; instead, relying on techniques such as back burning or backfiring to reduce fuel loads through targeted application of low intensity fire, in advance of the high intensity flaming front. In general, techniques such as hand lines and back burning operations will have less detrimental environmental effects compared to suppression techniques utilizing heavy equipment or fire retardant. Furthermore, CA State Parks and CAL FIRE will be able to incorporate the control lines or

previously treated areas within this project for future fire suppression efforts in a timely and informed manner during a wildfire.

Numerous resource protection measures are outlined in this CalVTP PSA for Butano State Park. These measures provide opportunities for significant avoidance, minimization, and mitigations, and are thoroughly evaluated in this PSA to understand the full extent of CEQA-compliance. Key measures include: biological and botanical surveys prior to project implementation, nesting bird and bat maternity roost surveys (if operations occur from February 1st to August 31st), no road building, mechanized operations on slopes less than 50%, no heavy equipment operations in proximity to watercourses, canopy and native vegetation retention requirements, control of invasive exotic species, mitigations to reduce the spread of forest pests and pathogens, an archaeological survey report, requirements to follow local policies and public noticing, and a pre-operational meeting with contractors to educate and advise them of key natural resource issues.

2.3 Equipment Alternatives

Hand, mechanized, prescribed broadcast and pile burning, as well as herbicide treatments are all proposed to be utilized for this project. Examples of mechanized and handwork treatments are shown below (Figures 12 and 13), from a recent project completed in an adjacent property in San Mateo County in 2021. The general treatment involved the removal of live vegetation up to 8 inches in diameter as well as dead vegetation up to 12 inches in diameter, while retaining pockets of healthy understory vegetation and small diameter trees to serve as source populations for regeneration as well as habitat. Following initial treatments, the density of retained trees highlighted the need for the mobility to remove trees in larger size classes, as the remaining tree density was still higher than appropriate to achieve resiliency goals. Handwork treatments were focused on slopes exceeding 40% and in locations surrounding sensitive resources including infrastructure and watercourses.

Figure 12. San Mateo County – Handwork – Before (left) and after (right)

Figure 13. San Mateo County – Mechanized – Before (left) and after (right)

Additionally, examples of low intensity, understory burns are shown below (figure 14). Both prescribed fire operations had goals of reducing dead, dying, and diseased vegetation, understory vegetation, as well as raising the canopy of overstory trees to reduce ladder fuels.

Figure 14. Understory broadcast burns at Henry Cowell Redwoods State Park (left) and Calaveras Big Trees State Park (right)

2.3.1 Mechanized

Low-pressure, smaller (<20,000 lb.), tracked excavators and other tracked equipment with mowing heads that can grind smaller trees and understory vegetation into 1–3-inch large chips on slopes up to 40% and spread chips throughout the forest are preferred. Additionally, equipment >20,000 pounds may be utilized when operating from existing roadways or where access limitations of smaller equipment prevents operators from maintaining a level of operational efficiency. Although mechanized equipment for these types of projects can weigh between 15,000 – 60,000 pounds on average, the weight is distributed evenly through the large surface area of the equipment's tracks, resulting in relatively low ground pressure; typically ranging between 4-8 pounds per square inch (PSI). For context, the average human male produces roughly 8 psi, a sedan produces 30 psi, and a mountain bike tire produces 40 psi. Furthermore, masticators will access treatment areas from existing roads and in certain situations, when moving from one treatment polygon to another, operate on slopes up to 50% for short distances. Please see SPR AD-3 for information regarding consistency with the San Mateo County LCP Policy 9.18 - Regulation of Development on 30% or Steeper Slopes. Resulting mastication will leave a layer of mulch behind to minimize any erosion and suppress weed invasion, while allowing existing native species to resprout and colonize the area. Operators working in smaller enclosed air-conditioned cabs are nimbler in the forest, resulting in lower damage to the residual forest stand and increasing worker safety. General production rates average approximately one acre per day, per piece of tracked equipment. Current costs have recently ranged between $2,000 - $4,000 per acre (prevailing wage indicated on the upper end).

Figure 15. Examples of Mechanized Equipment – Fecon FTX 128 Series compact track loader with masticating head attachment (left). Morbark Beever M15R tracked chipper (right)

Figure 16. Example of Mechanized Equipment – Link-Belt 145 x 4 excavator with masticating head attachment

2.3.2 Handwork

Handwork treatments consist of conducting physical labor to remove trees and shrubs as well as understory vegetation with various hand operated equipment including chainsaws and chippers. This type of treatment is often utilized in sensitive areas around watercourses, steeper slopes (>40%), near cultural resources, or other key aesthetic areas. Handwork is physically demanding and inherently exposes workers to increased safety risk. General production rates average approximately ½ an acre per day for a crew of approximately 10 people. Current costs have ranged between $9,000 - $18,000 per acre (prevailing wage indicated on the upper end). Handwork treatments are favored when sensitivity is required over a relatively small operational treatment area, or where access of larger equipment is infeasible. Specifically, handwork can be favored when fine-scale shifts in treatments are required, such as preparing prescribe fire burn plots or operating around sensitive infrastructure and resources. Since prescribed fire operations often utilize existing topographical features (e.g., ridgetops) for control lines, and because control lines can be tailored to the fuel

size and expected flame lengths, handwork can allow for these fine-scale shifts in control line width or when specific trees or other vegetation need to be removed or modified.


Figure 17. Examples of hand crews conducting manual vegetation removal.

2.3.3 Prescribed Fire

Prescribed fire describes the use of intentionally ignited fire, under predetermined environmental conditions, to meet predetermined management objectives. Prescribed fire can be broken down into broadcast burning and pile burning. Broadcast burning involves spreading fire through a continuous, or nearly continuous, fuel bed consisting of slash, surface litter, duff, or other vegetative biomass. Broadcast burning utilizes well defined boundaries including roads, trails, control lines, or distinct environmental shifts to apply fire generally to the entirety of a predetermined area. Costs for prescribed fire operations are extremely variable based upon the size, type, and complexity of vegetation being burned. Typically, cost per acre of broadcast burns decreases significantly as you increase the size of the burn. Barriers to prescribed fire include a lack of fire trained personnel, inconsistent and infrequent weather windows, as well as the risk and liability associated with the practice. In order for prescribed burning operations to occur successfully, the management entity needs to have the appropriate equipment (Figures 18 and 19), trained personnel, and specific environmental conditions to achieve management goals. However, when completed successfully, broadcast burning can occur irrespective of slope and access and can allow land managers to effectively manage lands that would otherwise be infeasible with handwork or mechanized equipment, and in a manner that minimizes soil disturbance and other adverse environmental impacts.

Vegetative outcomes of prescribed broadcast burning are variable depending upon the pre-existing conditions and timing of application. Typically, understory broadcast burn operations occur in the late Fall or early Winter, with the goal of reducing understory vegetation and duff and litter depths. Grassland burns typically occur in Fall, following slight precipitation, with the goal of burning the thatch layer of annual grasses and promoting native perennial grass and forb growth. Finally, chaparral burns typically occur in the late Spring, when live fuel moisture is high, but dead fuels are dry enough to facilitate consumption. However, burns will occur opportunistically when conditions allow. Studies have shown that prescribed fire applied to coast redwood understory conditions in the Santa Cruz Mountains can be effective in reducing fuel loads, duff and litter depths, as well as density of understory vegetation (Cowman and Russell, 2020). Furthermore, as referenced in the PEIR (CalVTP Final PEIR Volume II Section 3.17, p. 3) prescribed fire has shown to be effective in reducing fire frequency and severity when applied at the landscape scale over extended periods of time (Kim et al. 2013, Prichard and Kennedy, 2014). Prescribed fire operations may utilize drip torches, fuzees, helitorches and other commonly used forms of ignition starts for prescribed fire. Additionally various sizes of fire engines may be utilized as control measures, as well as heavy equipment staged along control line roads in the event emergency measures are required.

Figure 18. Examples of Prescribed Burning Equipment – Type 6 and Type 3 Fire Engines (left), Drip Torch (right)

Figure 19. Pile burning operation. Castle Rock State Park (left). Quiroste Valley Cultural Preserve, Año Nuevo State Park (right)

2.4 Treatment Type

2.4.1 Ecological Restoration

This project proposes an Ecological Restoration Treatment Type to restore ecosystem processes, native stand conditions, and ecosystem resiliency through the removal of dead, dying, diseased, and overstocked trees, and dense understory fuels in areas generally outside of the Wildland-Urban Interface (WUI), or areas integrated into WUI fuel reductions, as defined by the California Vegetation Treatment Program PEIR (CalVTP Final PEIR Volume II Section 2.5.1, pages 7 & 15-17) (Figure 20). Implementing mechanical and manual treatment activities as well as pile and broadcast burning will result in modification of the existing fuels that will reduce the risk of stand-replacing fire events and ultimately support the restoration of native vegetative species and habitat conditions, including, but not limited to, habitat quality and natural, low-intensity fire regimes. As previously described, the property experienced variable-intensity wildfire throughout a large portion of the proposed treatment areas during the 2020 CZU Lightning Complex Fires. Following the fire, in the low to moderate severity burn areas, much of the understory vegetation was not fully consumed and has resulted in a large accumulation of dead and dying vegetative fuels. Additionally, areas that did not experience fire exhibit over-stocked stand characteristics, a high density of understory fuels, and are transitioning towards less resistant and resilient forest stand characteristics through undistributed successional processes (Cocking et al., 2012). Thinning small to mid-range diameter trees and understory vegetation will increase the carrying capacity of the site in regards to stand volume and will increase the growth of residual vegetation by freeing up resources such as water, nutrients, and sunlight (Dale et al., 2000). Promoting growth of larger trees occupying the mid and overstory canopy will promote a break in vertical fuel continuity, the development of disturbance (fire, drought, pests, etc.) resistant trees, and promote the development of a diverse understory assemblage. Furthermore, much of Butano State Park has deviated from its historic fire regime, which is estimated to be between 15 to 60 years for coast redwood stands within the Santa Cruz Mountains (Greenlee, 1983; Stephens and Fry, 2005; Jones and Russell, 2015). Aside from the August 2020 CZU Lightning Complex Fire, according to the San Mateo County – Santa Cruz County Community Wildfire Protection Plan (CWPP) Fire History map, there are no documented wildfires in the park larger than 10 acres after 1940, which is when data began being collected.[3] The CZU Fire presents an opportunity to reimplement historic disturbance frequency within the park's boundaries, either through prescribed broadcast burning, or a fire surrogate utilizing mechanical means or hand treatment.

2.4.2 Wildland-Urban Interface Fuels Reduction

The proposed project includes natural areas which are highly utilized by the public and adjacent to park infrastructure including housing, camps, and maintenance facilities (Figure 20). Additionally, located as close as 0.8 miles from the proposed treatment boundaries is the Butano Subdivision, a community of homes located at the end of Canyon Road, north of the project and property boundaries. The proximity to housing and park infrastructure indicates that the project areas would constitute a WUI as defined in the PEIR (CalVTP Final PEIR Volume II Section 2.5.1, pages 7-10). Fuel reduction in the WUI will directly impact the local communities as well as sensitive park resources that either evaded the CZU Fire or are currently being rebuilt as the result of the fire. Additionally, park infrastructure including water holding facilities and access roads serve as emergency access points and resources during a wildfire event, as well as strategic locations to implement fire suppression activities to stop or slow the spread of wildfires.

[3] 2018_CWPP_update_final-Opt.pdf (sanmateorcd.org)

2.4.3 Fuel Break

This project proposes to include the fuel break treatment types in areas where flammable vegetation can be treated or modified to reduce fire spread to structures and natural resources, while providing strategic locations for firefighters to employ fire suppression techniques as defined by the PEIR (CalVTP Final PEIR Volume II Section 2.5.1, pages 11-14) (Figure 20). Treatments would primarily consist of shaded fuel breaks, however, non-shaded fuel breaks may occur in shrub or grass fuel types. Fuel breaks would provide additional ingress and egress for fire suppression personnel through the manipulation of vegetation to break the horizontal and vertical continuity of fuels. Through the use of shaded fuel breaks, the vertical continuity of fuels will be disrupted, while minimizing impacts to the overstory canopy, thus reducing the potential for regrowth of understory vegetation due to increased sunlight penetration. Non-shaded fuel breaks in shrub habitat are designed to create a mosaic of fuel composition, near key infrastructure or in a naturally dense plant community. Both types of fuel breaks are strategically placed to create the most opportunity to prevent or slow wildfire and increase potential opportunities to manage the interval at which fire returns to the watershed. These fuel break treatment approaches would provide emergency responders an opportunity, weather dependent, to control or contain wildfires through the modification of flammable vegetation.

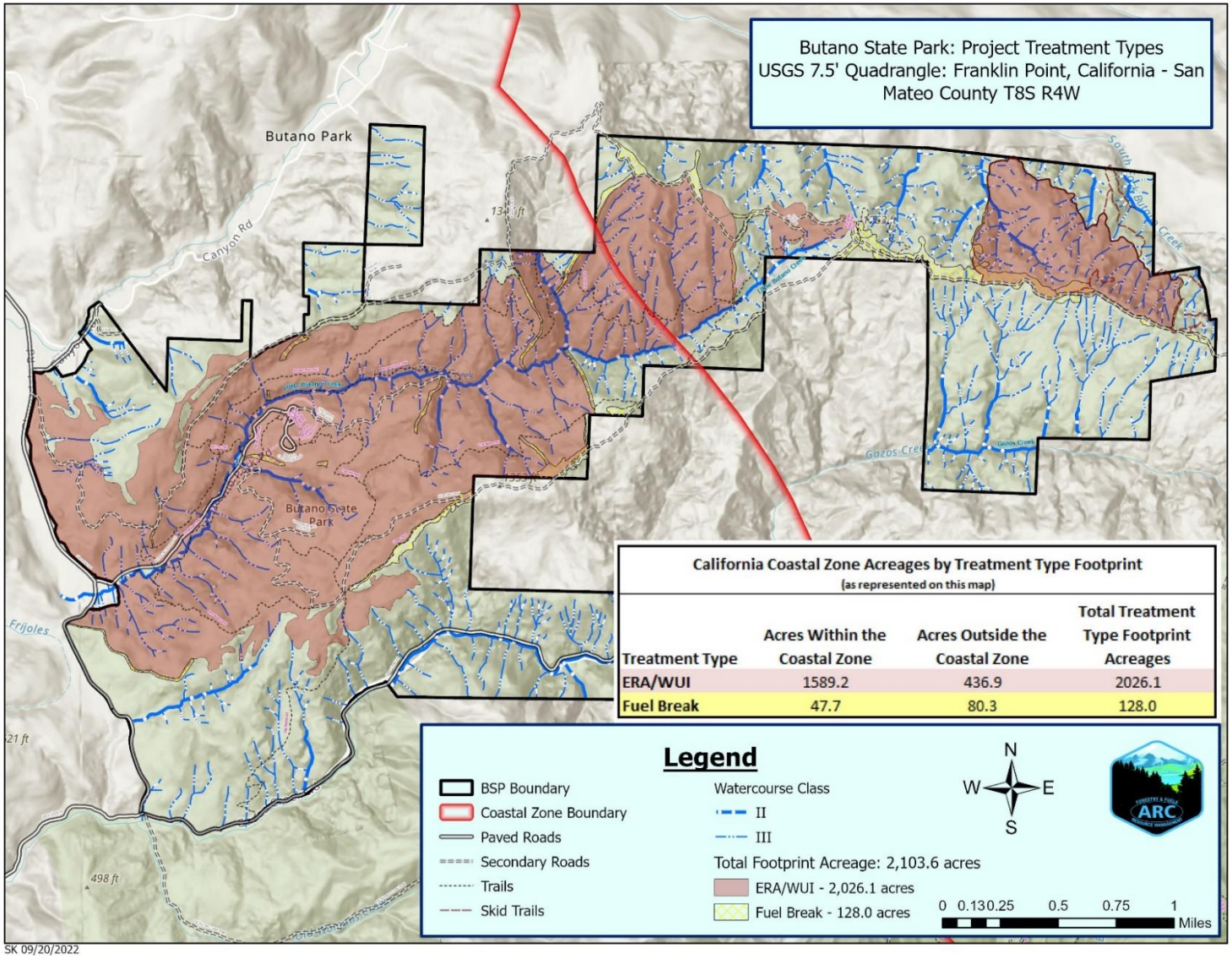

Figure 20. Butano State Park Treatment Type Map

2.5 Treatment Activities

2.5.1 Mechanical Treatments

Treatment activities consist of approximately 734.1 acres of mechanical treatments that will occur predominantly on slopes less than 40% as well as reaching off existing road infrastructure on slopes greater than 40%, targeting live and dead vegetation up to 16 inches in diameter (Figure 16). Masticators will be used to remove dense stands of understory vegetation and ladder fuels, including small diameter trees, to maintain a healthy overstory; such mechanical work is a treatment type considered within the scope of the PEIR. As stated in the CalVTP PEIR Section 2.5.2, mechanical treatments are designed to cut, uproot, crush/compact, or chop target vegetation. Additionally, the PEIR continues to state that mechanical treatments may be the best tool to restore a healthy forest canopy when a high level of control is required for the situation (CalVTP Final PEIR Volume II Section 2.5.2, page 23) (Colins et al., 2014). Many locations within the project boundaries do not yet maintain the appropriate vegetation densities or control line infrastructure to facilitate prescribed broadcast burning. Mechanical treatments would allow managers to achieve similar results with a higher degree of control, with the long term goal of achieving management objectives through the use of prescribed fire. Understory vegetation, brush, and shrubs under the drip lines of trees shall be cut and masticated leaving root systems intact for resprouting and maintaining fungal assemblages to the best degree possible. Understory debris would be chipped and scattered on-site within the treated areas, following the best management practices for reducing the spread of pests, disease, and invasive species.

2.5.2 Manual Treatments

Manual treatments would follow the same general prescriptions as mechanized treatments and may utilize chainsaws, loppers, pruners, or other hand operated equipment to cut, or prune woody species as described in the CalVTP PEIR Section 2.5.2. Manual treatments are likely to occur over approximately 41.3 acres of the treatment area, focusing on slopes greater than 40% and in areas where the creation of fire lines will facilitate future broadcast burning efforts throughout the park (Figure 21). Similar to mechanical treatments, manual treatments will remove dense stands of understory vegetation and ladder fuels to maintain a healthy overstory component (refer to section 2.1.1 "Treatment Specifications", above). Additionally, manual treatments may focus on mid-range diameter Douglas-firs (≤36 inches DBH), which are not conducive to furthering forest health and climate resiliency goals. Removal of these trees will minimize horizontal and vertical fuel continuity and favor the growth of larger adjacent trees. Much of Butano State Park is undergoing a continued shift in dominant tree composition, favoring fire intolerant species such as Douglas-fir while shading out and outcompeting fire-tolerant hardwoods. Manual removal of mid-range diameter trees would target stands with the goal of facilitating a more disturbance-tolerant species composition. Removal of Douglas-fir trees up to 36 inches DBH will occur under the following circumstances:

- Conifer (Douglas-fir) encroachment into hardwood stands - In the absence of fire, shade-tolerant Douglas-fir trees germinate beneath existing hardwood stands, pierce through the existing canopy, and overtop and shade-out existing hardwoods. Over time this leads to a type conversion from hardwood to conifer dominated stands, ultimately reducing understory biodiversity and resiliency to wildfire (Cocking et al., 2013).
- Dense, even-aged stands of Douglas-fir – in certain locations throughout the park, primarily on mid-slope benches, even-aged stands of Douglas-fir dominate the overstory component of the stand. Following acquisition by CA State Parks these locations revegetated into dense, homogenous stands of Douglas-fir, lacking in understory diversity. Thinning of the stand would decrease competition

among codominant trees, increase understory biodiversity through increased access to resources, and reduce horizontal continuity of canopy fuels.

- Conifer encroachment into grasslands – in the lower elevations of the park, type conversions are occurring from grassland to shrub and Douglas-fir dominated species compositions due to a decrease in fire frequency and changing climatic conditions. Removal of select Douglas-fir trees would halt or slow this type conversion, maintaining landscape-scale heterogeneity.

As described in the PEIR (CalVTP Final PEIR Volume II Section 2.5.2, pages 23-24), biomass will be disposed of utilizing a combination of methods. Refer to section 2.8 "Biomass Disposal", below.

2.5.3 Prescribed Burning Treatments

Pile burning is proposed within the approximately 1793.9 acre treatment area as a means of biomass removal for residual fuels following manual treatments (Figure 21). As described in the PEIR (CalVTP Final PEIR Volume II Section 2.5.2, page 18), pile burning can be used as a means of reducing fuel load, as well as to restore and maintain appropriate fire regimes. The project proposes to utilize pile burning in locations where access to mechanical equipment is infeasible or as a sensitive alternative to mechanical removal of biomass.

Additionally, this project proposes to utilize broadcast burning as described in CalVTP PEIR Section 2.5.2. Broadcast burning will be utilized to reduce fuels over a large area, irrespective of equipment access, slopes, or other factors prohibiting the use of other methods. Broadcast burning will be utilized to reimplement appropriate fire regimes, reduce the continuity of dead, downed, and overly dense fuels, raise the canopy of mid and overstory trees to decrease vertical fuel continuity, and reduce duff and litter depths (Cowman and Russell, 2020). Fire history studies in the Santa Cruz Mountains indicate the presence of varying fire return intervals during the ~11,000 years of indigenous land management prior to European contact. In coast redwood stands throughout Santa Cruz and San Mateo counties, mean fire return interval (FRI) has been measured between 15 to 60 years with a high degree of variability between points samples and studies (Greenlee, 1983; Stephens and Fry, 2005; Jones and Russell, 2015).

The absence of frequent, low-intensity fire on the landscape has allowed for the establishment and persistence of fire-intolerant species and species assemblages. Additionally, the exclusion of fire or a fire surrogate has led to distinct type conversions from grassland to shrubland vegetation communities and shrubland to timberland. Prescribed fire will be utilized in grass and shrub fuel types to maintain current species assemblages and prevent the ongoing type conversion to less fire tolerant communities. Prescribed fire will be utilized in forested stands to reduce duff, litter, and fuel depths, as well as densities of dead, dying, diseased, and dense understory trees and shrubs. The 2020 CZU Fire allowed for the forced reintroduction of fire into the Butano watershed, however, ongoing burning treatments will be utilized to improve and maintain current fuel and ecosystem conditions. More detailed information on pile and broadcast burning can be found in the Environmental Checklist below.

2.5.4 Herbicide Treatments

Herbicides would be used to prevent the spread and regrowth of invasive species within the treatment areas, with a primary focus along roads and other highly trafficked or disturbed locations. It's expected that herbicide treatments will occur on less than 5 acres, spread throughout the entirety of the treatment area. Herbicides will be used following initial and maintenance treatments to treat invasive or other undesirable plant species. These species are likely to include French broom (*Genista monspessulana*), pampas grass (*Cortaderia jubata*), and big leaf periwinkle (*Vinca major*), however, additional species may be targeted

throughout the duration of the project and maintenance activities. Consistent with the CalVTP (CalVTP Final PEIR Volume II Section 2.5.2) herbicide will only be applied at ground-level from equipment on vehicles or by manual application devices and must comply with the U.S. Environmental Protection Agency directions, as well as California Environmental Protection Agency and Department of Pesticide Regulation label standards. Concurrent with the Department of Parks and Recreation Practices, the project proponent will comply with all laws and regulations governing the use of herbicides for this project.

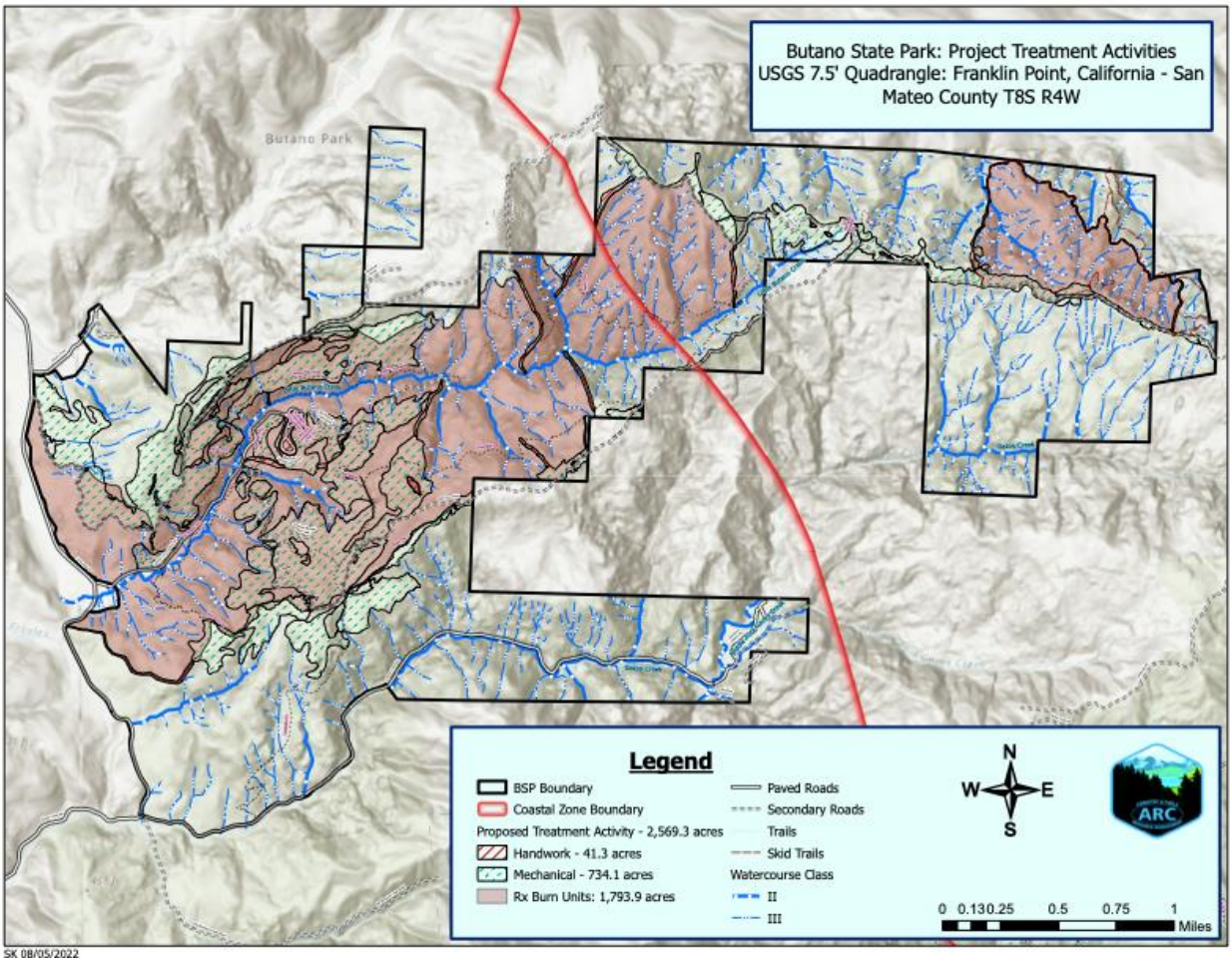

Figure 21. Butano State Park Project Treatment Activity Map.

2.6 Duration of Treatments

Initial and maintenance treatments are estimated to occur over approximately a 10-year period; however, the timeframe may change in the event of delays, such as weather or production rates. The San Mateo RCD was awarded a CAL FIRE Forest Health Grant in 2021 to fund this project. Through that grant funding, 420 priority acres have been identified for manual and mechanical treatment between 2022 – 2024 (Attachment B: Maps 13 and 14). Additional treatments outlined in this PSA will be performed as funding and resources become available. Prescribed broadcast burning treatments will occur as weather windows allow and as funding and resources become available.

2.6.1 Fuel Types

Proposed treatments would occur predominantly in tree fuel types with a shrub fuel type component in the understory, as described in the CalVTP Final PEIR Section 2.4.1. Additionally, broadcast burning treatments may occur in grassland and shrubland dominated fuel types, and fuel breaks may occur in shrub fuel types. The shrub fuel types are dominated by the glossy leaf manzanita alliance in the higher elevation ridgetops and the coyote brush alliance in the lower elevations, amongst others. The tree fuel types within the project area are primarily dominated by the redwood alliance and Douglas-fir alliance, with components of live oak, knobcone pine alliance, and tanoak alliance. The coast redwood and Douglas-fir stands are dominated by an understory composed of moderate to dense understory fuels including native shrubs and vines such as huckleberry, poison oak, red elderberry. Additionally, the mixed hardwood stands maintain similar understory characteristics with high densities of juvenile conifer species as well. Understories located in areas that experienced low to moderate severity burn during the CZU Fire contain moderate fuel loads including dead and/or cured vegetation and a component of regenerative vegetation and tree sprouting. Shrub fuel types throughout the project area are dominated by mixed chaparral in the higher elevation portions of the park and coastal scrub towards the bottom of the park, near Cloverdale Road. The grass fuel types throughout the project area are primarily located near the lower elevation portions of the park, adjacent to Cloverdale Road, and dominated by non-native annual and perennial grasses.

2.6.2 Biomass Disposal

All cut vegetation produced from the treatments described above will be disposed of in one or more of the following methods:

- Mastication – Residual masticated material shall remain uniformly spread to the extent feasible and shall not exceed a depth of 6 inches and should average approximately 3 inches. Stumps shall be cut to no higher than 6 inches above the ground and have a smooth, flat appearance.
- Chipped and broadcast throughout the treatment area – Manually cut vegetation shall be cut and chipped back into the treatment area, not to exceed a depth of 6 inches and should average approximately 3 inches.
- Lop and Scatter – Vegetation will be cut using hand saws, pole saws, chainsaws, or other hand-operated tools not to exceed a depth of 12 inches. Every effort will be made to maximize ground contact of cut material to increase decomposition rates and reduce fuel height.
- Pile Burning – Cut material may be stacked and piled to be burned at a later date. Piles will not exceed 20 feet in length, width, or diameter and will average 6 feet in length, width, and diameter. Piles will not be located in any Watercourse and Lake Protection Zones.
- Curtain Burner – Cut material may be incinerated using a curtain burner. Curtain burners will be placed in large open areas, cleared of vegetation, or along roads.

2.6.3 Treatment Summary Table

Table 2. CalVTP treatment types, activities, timing, equipment, and descriptions for the Butano State Park Forest Health Project

CalVTP Treatment Types	Treatment Description	CalVTP Treatment Activity	Total Acreage	Equipment Used and Crew Size	Timing of CalVTP Treatments
Ecological Restoration / WUI Fuel Reduction	Forest health and ecosystem resilience treatments aimed at restoring ecosystem processes, native stand conditions, and ecosystem resiliency.	Prescribed Burning	1793.9 acres	- Drip torches, fuzees, and other ignition devices - Hand tools, chainsaws, and other hand operated equipment - Fire engines, bulldozers and other heavy equipment as necessary - helicopters/aerial ignition devices - 10 – 50+ staff, as necessary	Seasonally, 2022 – 2032 as funding and conditions allow
	Forest health and ecosystem resilience treatments aimed at restoring ecosystem processes, native stand conditions, and ecosystem resiliency.	Mechanical	606.1 acres	- Masticators, feller-buncher, skidsteer, chipper (to chip biomass) - 4 – 20 staff	- FHG treatments (~263 acres) planned for Spring - Fall 2022-2024 - Additional treatment acres as funding allows
	Forest health and ecosystem resilience treatments aimed at restoring ecosystem processes, native stand conditions, and ecosystem resiliency.	Manual	41.3 acres	- Chainsaws and/or other mechanized and non-mechanized hand tools - 4 – 20 staff	- FHG treatments (~29 acres) planned Fall 2022 - Spring 2024 - Additional treatment acres as funding allows
	Prevent the establishment and spread of exotic invasive plants	Herbicide	<5 acres across the entire treatment area	- Backpack sprayer and cut stump application devices (drippers) - 2 – 20 staff	As needed
Fuel Break	Treatment of forested and shrub dominated vegetation along Butano Fire Road, Olmo Fire Trail, and the main (unnamed) park access road.	Mechanical	128 acres (~115 acres of shaded and ~13 acres non-shaded	- Masticators, feller-buncher, skidsteer, chipper (to chip biomass) - 4 – 20 staff	FHG treatments planned for Fall 2022 – Spring 2024
	Prevent the establishment and spread of exotic invasive plants	Herbicide	<5 acres across the entire treatment area	- Backpack sprayer and cut stump application devices (drippers) - 2 – 20 staff	As needed

3.0 Environmental Checklist (EC)

VEGETATION TREATMENT PROJECT INFORMATION

1. Project Title: Butano State Park Forest Health Project
2. Project Proponent Name and Address: California Department of Parks and Recreation
   303 Big Trees Park Road, Felton, CA
   95018
3. Contact Person Information and Phone Number: Tim Hyland (Senior Environmental Scientist)
   Tim.Hyland@parks.ca.gov
   831-335-6318
4. Project Location: [*Butano State Park*
   1500 Cloverdale Rd., Pescadero, CA 94060
   USGS – Franklin Point Quadrangle, California T8S, R4W
   Latitude (Y): 37.201879 N
   Longitude (X): -122.338209 W
   Refer to Attachment B, maps 1 and 2
5. Total Area to be Treated (acres): 2103.6
6. Description of Project:

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

Problem Statement:

See Chapter 1.3, "Problem Statement", above for the problem statement.

Goal Statement:

See Chapter 1.4, "Goal Statement", above for the goal statement.

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

☒ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

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

☒ Prescribed Burning (Broadcast), __1793.9_____ acres

☒ Prescribed Burning (Pile Burning) __ 1793.9 ____acres

☒ Mechanical Treatment, _734.1____ acres

☒ Manual Treatment, __ 41.3 ___ acres

☐ Prescribed Herbivory, _____ acres

☒ Herbicide Application, _ 5__ acres

Fuel Type [see description in CalVTP PEIR Section 2.4.1, check every applicable category; provide detail in description of Initial Treatment]

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

a. Treatment Maintenance

Maintenance treatments are estimated to occur approximately every 5-10 years, however, may occur as needed over the lifetime of the CalVTP. Following initial treatments, site conditions are expected to present a clear, open understory that would promote healthier, more vigorous vegetation. Open understories would support wildlife habitats and regeneration of native species due to the renewed access to resources. Maintenance intervals will be dependent on the revegetation rate of understory species and will be highly variable based upon dominant pre-existing vegetation type. Maintenance treatments will be triggered by dense, continuous understory and ladder fuels. Maintenance treatments will be implemented through the use of mechanical, manual, prescribed burning, and select herbicide treatments to treat dead and dying trees, dense understory and mid-range diameter vegetation and ladder fuels, and reduce the reestablishment of less desirable species, including invasives and fire intolerant species. Following approval by the CCC, due to the expansive scope and time scale associated with this project, project authorization of initial and maintenance treatments under the San Mateo County Forest Health and Fire Resilience PWP would be authorized for the full term of the PWP (nine years).

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

☒ Wildland-Urban Interface Fuel Reduction

☒ Fuel Break

☒ Ecological Restoration

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

☒ Prescribed Burning (Broadcast), ___1793.9____ acres

☒ Prescribed Burning (Pile Burning) _1793.9 ____acres

☒ Mechanical Treatment, ___734.1____ acres

☒ Manual Treatment, __41.3_____ acres

☐ Prescribed Herbivory, _____ acres

☒ Herbicide Application, _5__ acres

Fuel Type [*see description in CalVTP PEIR Section 2.4.1, check every applicable category; provide detail in description of Treatment Maintenance*]

☒ Grass Fuel Type

☒ Shrub Fuel Type

☒ Tree Fuel Type

Geographic Scope

☐ The treatment area is entirely within the CalVTP treatable landscape

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

Use of the PSA for Treatment Maintenance

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

In addition to verifying that the PSA continues to provide relevant CEQA coverage for treatment maintenance, the project proponent will update the PSA at the time a maintenance treatment is needed when more than 10 years have passed since the approval of the PSA or the latest PSA update. For example, the project proponent may conduct a reconnaissance survey to verify conditions are substantially similar to those anticipated in the PSA. Updated information should be documented. Following approval by the CCC, due to the expansive scope and time scale associated with this project, project authorization of initial and maintenance treatments under the San Mateo County Forest Health and Fire Resilience PWP would be authorized for the full term of the PWP (nine years).

7. Regional Setting and Surrounding Land Uses: (Briefly describe the project's surroundings)
<u>Physical</u>

Butano State Park encompasses roughly 4,630 acres and is located in Pescadero, San Mateo County bound by a mix of public and private landowners. Located due north of the Park's boundaries is the Butano Canyon Subdivision, at the end of Canyon Road. The park is located approximately 25 miles south of Half Moon Bay and 30 miles north of Santa Cruz. The park is located on the western side of the Santa Cruz Mountains, roughly 60 miles from major cities including San Jose and Oakland, as well as 40 miles from San Francisco. The project property contains a central perennial (class II) watercourse called Little Butano Creek, which serves as a tributary to Butano Creek. Additionally, Gazos Creek borders portions of the southern property boundary. Furthermore, multiple class II and III tributaries occur within the park that feed into Little Butano Creek, Butano Creek, and Gazos Creek. The park is open to multiple recreational opportunities including hiking, biking, horseback riding, day-use, and overnight camping. However, following the 2020 CZU Lightning Complex Fires (CZU Fire) and at the time this document was being produced, the park is only open for select day-uses.

Vegetation

Vegetation within Butano State Park is extremely diverse, based upon elevation, aspect, access to water, as well as several other biotic and abiotic factors. Furthermore, the area was logged extensively in the late 19th and early 20th centuries, until the majority of the park was acquired in 1957. Portions of unlogged old growth redwood stands remain near the interior and backcountry portions of the property, but second-growth redwood and Douglas-fir dominates the previously logged locations. Furthermore, as mentioned previously, the CZU Fire has caused drastic shifts in the vegetative communities within the park. Roughly two thirds of the park burned during the CZU Fire, varying greatly in intensity depending upon the location and site-specific factors. Dominant vegetation alliances within the park include the redwood alliance, Douglas-fir – tanoak alliance, tanoak alliance, and live oak alliance, as well as portions of mixed chaparral, coastal scrub, and California annual and perennial grasslands. Riparian and wet meadow plant communities occur within the park as well.

8. Other Public Agencies Whose Approval is Required: (e.g., permits)

No other public agency approval is required for this project.

Discussions were held with The California Department of Fish and Wildlife (CDFW) during the planning phase of this project. A draft of this document was provided to CDFW staff on September 15, 2022 to review. On September 29, 2022 comments were received and incorporated into this document.

Discussions were held with The United States Fish and Wildlife Service (USFWS) during the planning phase of this project and a draft of this document was sent to USFWS staff on September 15, 2022. A response was received on September 30, 2022 indicating that the USFWS does not have comments to be incorporated into this document at that time.

The County of San Mateo was contacted during the planning phase of this project on September 2, 2022.

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

The proposed project is within the Coastal Zone, as defined by the California Coastal Act, and pursuant to SPR AD-9 in the PEIR (CalVTP Final PEIR Volume II Section 2.7.1, 34). Communication and coordination between the California Coastal Commission (CCC), San Mateo RCD, the County of San Mateo, and similar entities has allowed for the development of a Public Works Plan (PWP) to expedite Coastal Act authorization through the issuance of a Notice of Impending Development, or NOID, which serves as a coastal development permit when found consistent with the PWP, including Coastal Vegetative Treatment Standards (CVTS) (Attachment D). The CCC received a DRAFT Butano State Park PSA for their review on August 10, 2022. Following approval by the CCC, due to the expansive scope and time scale associated with this project, project authorization of initial and maintenance treatments under the San Mateo County Forest Health and Fire Resilience PWP would be authorized for the full term of the PWP (nine years).

9. Native American Consultation. *For treatment projects that are within the scope of the CalVTP PEIR, AB 52 consultation for AB 52 compliance has been completed. The Board of Forestry and Fire Protection conducted consultation pursuant to Public Resources Code section 21080.3.1 during preparation of the PEIR. For treatment projects with impacts not within the scope of the PEIR, pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, project proponents preparing a new negative declaration, mitigated negative declaration, or EIR must notify any California Native American tribe who has submitted written request for notification of a project in the area of the treatment site. Upon written request for consultation by a tribe, the project proponent must begin consultation before the release of the environmental document and must follow the requirements of the cited PRC sections.*

   According to a records search completed by State Parks Associate Archaeologist, Michael Grone, in consultation with retired State Parks Archaeologist, Mark Hylkema, and completed on June 30, 2022, there are no recorded sites with the potential to be impacted by project activities. However, large portions of the project property have not previously been systematically surveyed. Any previously unrecorded sites that are discovered during project activities and development of Archaeological Survey Reports (ASR) (SPR CUL-4) will be avoided, protected, and recorded accordingly. Furthermore, California Department of Parks and Recreation Historian II and Tribal Liaison, Martin Rizzo-Martinez, reached out to all affiliated tribal contacts on June 27, 2022, however, there was no response. Additionally, a Sacred Lands file search was requested to the Native American Heritage Commission and no A full Archaeological Survey Report will be completed and submitted to the NWIC prior to implementation of project activities.

DETERMINATION (To be completed by the project proponent)

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

☒ I find that all of the effects of the proposed project (a) have been covered in the CalVTP PEIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP PEIR will be implemented. The proposed project within the CalVTP treatable landscape is, therefore, **WITHIN THE SCOPE** of the CalVTP PEIR. For the proposed project areas outside of the CalVTP treatable landscape, no new circumstances have occurred, nor has any new information been identified requiring new analysis or verification. Project changes would not result in any new or substantially more severe significant impacts. **NO ADDITIONAL CEQA DOCUMENTATION** beyond this PSA and Addendum to the PEIR is required.

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

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

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

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

DocuSigned by:
Chris Spohrer
0228B0F8407E495...
Signature

10/17/2022
Date

Chris Spohrer
Printed Name

District Superintendent II
Title

California State Parks
Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

If the impact is equal to or less than the impact identified in the PEIR, the PEIR can be utilized without a Negative Declaration, Mitigated Negative Declaration or EIR. If there are one or more entries where the impact is evaluated to be greater than the impact in the PEIR, additional documentation is required.

4. Where a Negative Declaration, Mitigated Negative Declaration is required, the environmental review would be guided by the directions for use of the PEIR with later activities in Section 15168. Where an EIR

is required, the environmental review would be guided by Sections 15162 and 15163. When preparing any environmental document, the environmental analysis may incorporate by reference the analysis from the CalVTP PEIR and focus the environmental analysis solely on issues that were not addressed in the CalVTP PEIR.

5. Project proponents should incorporate into the PSA checklist references to information sources for potential impacts. Include a list of references cited in the PSA and make copies of such references available to the public upon request.
6. Standard Project Requirements (SPR) and Mitigations Measures (MM).
    - Applicable (Yes/No). Document whether the SPR or mitigation measure is applicable to the project (Yes or No). The applicability should be substantiated in the Environmental Checklist Discussion.
    - Implementing Entity. The implementing entity is the individual or organization responsible for carrying out the requirement. This could include the project proponent's project manager, a technical specialist (e.g., archeologist or biologist), a vegetation management contractor, a partner agency or organization, or other entities that are primarily responsible for carrying out each project requirement.
    - Verifying/Monitoring Entity. The verifying/monitoring entity is the individual or organization responsible for ensuring that the requirement is implemented. The verifying/monitoring entity may be different from the implementing entity.

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

3.1 EC-Aesthetics and Visual Resources

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact AES-1

Initial and maintenance treatments would include manual, mechanical, herbicide, and prescribed burning treatments. The potential for these treatments to result in short-term, substantial degradation of scenic vista or visual character of the landscape is examined in the PEIR (CalVTP PEIR Volume II Section 3.2.3, p. 16-19). The treatment activities and potential impacts are within the scope of the PEIR because they are consistent with the activities and impacts addressed in the PEIR. The project area spans Butano State Park, a recreational property managed by the California Department of Parks and Recreation. Some of the treatment areas are visible from Cloverdale Road, which has been designated a County Scenic Corridor (CalVTP Final PEIR Volume II Section 3.2.3, Figure 3.2-10, p. 24). With the implementation of SPRs AD-3, AES-1-3, REC-1, and AQ 2-3 the treatments will be consistent with local plans and ordinances, vegetation will be thinned and feathered to screen views from visible locations, all treatment related equipment will be stored outside of the public viewshed when feasible, recreational users will be notified of any temporary recreation area closures at least two weeks prior to treatment activities, as well as one to three days prior to any prescribed burning activities. Additionally, a smoke management plan will be submitted to the applicable air district in accordance with 17 CCR Section 80160 when necessary, and a burn plan will be produced for the project using the National Wildfire Coordinating Group (NWCG) prescribed burn plan template. All of the above-listed standard project requirements coupled with the project goal of promoting healthy and resistant ecosystem characteristics will make the potential for the project to result in short-term substantial degradation of a scenic vista, visual character, or damage to scenic resources temporary and less than significant.

PSA Addendum – Impact AES-1

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

Impact AES-2

Initial and maintenance treatments would include manual, mechanical, and prescribed burning treatments for WUI fuel reduction, ecological restoration, and fuel break treatment types. The result for these treatments to result in long-term degradation of the visual character of the landscape was examined in PEIR (CalVTP PEIR Volume II Section 3.2.3, pages 20-22). The project area spans Butano State Park, a recreational property managed by the California Department of Parks and Recreation, which is utilized by the public for recreation. Additionally, some of the treatment areas are visible from Cloverdale Road, which has been designated a County Scenic Corridor (CalVTP Final PEIR Volume II Section 3.2.3, Figure 3.2-10, p. 24). For this project the project proponent proposes to utilize SPRs AES 1-3, REC-1, and AD-4. SPRs AES-1 and AES-3 would be utilized to break up or screen linear edges of clearings to achieve a natural setting, when feasible, to avoid impacts to public trails, parks, recreational areas, or scenic roadways. Additionally, SPRs REC-1 and AD-4 would provide public notifications for prescribed burning and any trail closures. Additionally, retained vegetation throughout the treatment area will maintain the park-like appearance of the project area, with goals of retaining irregular vegetation densities. Based upon the implementation of the above-mentioned SPRs and the nature of the treatment types, the potential for this project to result in long-term, substantial degradation of this visual character of the project site or damage to scenic resources would be temporary and less than significant.

PSA Addendum – Impact AES-2

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside of the treatable landscape; therefore, the long-term aesthetic impact is also temporary and less than significant. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AES-3

The proposed initial and maintenance treatment types would include fuel break treatment types, predominantly creating a shaded fuel break. However, non-shaded fuel breaks may be utilized in areas with high densities of shrub fuel types. The potential for non-shaded fuel break treatments to result in long-term, substantial degradation of scenic resources or the visual character of the landscape were assessed in the PEIR (CalVTP Final PEIR Volume II Section 3.2.3, pages 25-27). Because non-shaded fuel breaks remove all vegetation, this treatment type could lead to long-term adverse visual change in the landscape by resulting in linear elements in an otherwise natural environment. Non-shaded fuel breaks would be established in strategic locations, typically where there is a natural change in vegetation type, to reduce fire spread to structures and natural resources and to provide access for fire suppressions efforts. Because of the strategic nature of non-shaded fuel break siting, it may be infeasible to relocate a non-shaded fuel break to avoid public visibility. However, potential impacts as a result of a non-shaded fuel break treatment type are within the scope of the PEIR because treatment activities are consistent with those analyzed in the PEIR. The proposed treatment area includes portions of Butano Fire Road and Olmo Fire Road, and would be visible from Cloverdale Road, a County Scenic Corridor in San Mateo County. Because portions of the treatment area may be visible to the public, Mitigation Measure AES-3 will be utilized, which requires the project proponent to conduct a visual reconnaissance of the non-shaded fuel break treatment areas to determine if public viewing areas have a view of the treatment locations. If it is determined that there are public viewing areas with views of the non-shaded fuel break treatment types, then the treatment area will be moved if feasible. If the treatment area cannot be moved, it will be thinned and feathered at the edge of the fuel break to strategically preserve vegetation, as feasible to help screen public views and minimize the contrast between the fuel break and surrounding vegetation.

In the majority of the treatment area where a fuel break treatment type will be applied, a shaded-fuel break treatment type will be utilized. However, in areas where a non-shaded fuel break must be implemented to achieve wildfire risk reduction objectives, and the use of MM AES-3 cannot be implemented in a way that would feasibly reduce the visual impacts and potential for substantial long-term degradation of a scenic vista or visual character or quality of public views, this impact would remain significant and unavoidable as stated in the PEIR (CalVTP Final PEIR Volume II Section 3.2.3, page 27).

PSA Addendum – Impact AES-3

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing scenic resources are essentially the same within and outside of the treatable landscape; therefore, the potential for the treatments to result in a long-term substantial degradation of a scenic vista or visual character or quality of public views from a non-shaded fuel break would remain significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Aesthetic and Visual Resource Impacts

The proposed treatment within the treatable landscape is consistent with the treatment types and activities analyzed in the CalVTP PEIR. The project proponent has evaluated and considered the site-specific characteristics to determine that the project treatments are consistent with the CalVTP PEIR's environmental and regulatory settings (CalVTP Final PEIR Volume II Sections 3.2.1 and 3.2.2). No changed circumstances would lead to new significant impacts not addressed in the CalVTP PEIR.

PSA Addendum – New Aesthetic and Visual Resource Impacts

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the PEIR.

No new impact related to aesthetics and visual resources would occur that is not covered in the PEIR.

3.2 EC-Agriculture and Forestry Resources

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact AG-1

Initial and maintenance treatments would include manual, mechanical, herbicide, and prescribed burning treatments for WUI fuel reduction, ecological restoration, and fuel break treatment types. The potential for the proposed treatments to result in a loss of forested land was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.3.3 page 7-8). The treatment activities proposed for this project, listed above, will not reduce forest land, as defined in CA PRC Section 12220(g), to less than 10% native tree cover of any species.

As described in the project description, the project does not propose to remove trees for commercial purposes, and generally will target the removal of understory trees, less than or equal to 16 inches DBH. Additionally, as discussed in the project description, manual treatments may focus on mid-range diameter trees (up to 36 inches DBH), which are not conducive to furthering forest health and climate resiliency goals. The removal of overstory trees would only occur in overly dense stands and would be limited to codominant and mid-range diameter trees. This project does not propose the removal of trees to the extent that would promote a forest conversion or change in land use.

Removal of understory vegetation and dense mid-range diameter, codominant or intermediate overstory trees would promote beneficial results by improving the health and vigor of the forest and develop stand

characteristics that are more resilient to changing climate and disturbance regimes. Based on the treatment activities and beneficial results of the proposed project, no forestland, timberland, or farmland will be converted, thus any impact would be less than significant.

PSA Addendum – Impact AG-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing agricultural resources are essentially the same within and outside of the treatable landscape; therefore, the potential for the treatments to directly result in loss of forest land or conversion of forest land to non-forest use is less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Agriculture and Forestry Resource Impacts

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

PSA Addendum – New Agriculture and Forestry Resource Impacts

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the PEIR.

No new impact related to agriculture and forestry resources would occur that is not covered in the PEIR.

3.3 EC-Air Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that would exceed CAAQS or NAAQS	PSU	Table 3.4-1; Impact AQ-1, pp. 3.4-26 – 3.4-32; Appendix AQ-1	Yes	AD-4 AQ-1 AQ-2 AQ-3 AQ-4 AQ-6	AQ-1	PSU	No	Yes
Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	LTS	Table 3.4-6; Impact AQ-2 pp. 3.4-33 – 3.4-34; Appendix AQ-1	Yes	HAZ-1 NOI-4 NOI5	NA	LTS	No	Yes
Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	LTS	Section 3.4.2; Impact AQ-3, pp. 3.4-34 – 3.4-35	No	None	NA	No Impact	No	Yes
Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk	PSU	Section 3.4.2; Impact AQ-4, pp. 3.4-35 – 3.4-37	Yes	AD-4 AQ-2 AQ-3 AQ-6	NA	PSU	No	Yes
Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	LTS	Impact AQ-5, pp. 3.4-37 – 3.4-38	Yes	HAZ-1 NOI-4 NOI-5	NA	LTS	No	Yes
Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning	PSU	Section 2.5.2; Impact AQ-6; pp. 3.4-38	Yes	AD-4 AQ-2 AQ-3 AQ-6	NA	PSU	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with	Less than Significant

		Mitigation Incorporated	
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Pursuant to SPR AQ-2 and AQ-3, the project proponent will prepare a smoke management plan and submit it to BAAQMD prior to implementing any prescribed burning treatment, as well as a burn plan. The burn plan will include fire behavior modeling and will be implemented by a California State Parks burn boss. An Incident Action Plan, which identifies burn dates, burn hours, weather limitations, specific burn prescription, communication plan, medical plan, traffic plan, and other special instructions required by BAAQMD, will also be prepared by the project proponent for all proposed prescribed burning treatments. The Incident Action Plans will also identify the contact personnel for BAAQMD to coordinate on-site briefings, posting notifications, and weather monitoring during burning.

Impact AQ-1

Use of vehicles, mechanical equipment, and prescribed burning during treatments would result in emissions of criteria pollutants that could exceed CAAQS or NAAQS thresholds. The potential for emissions of criteria pollutants to exceed CAAQS or NAAQS thresholds was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, pages 26-33). The proposed treatments, treatment equipment, and equipment use duration are consistent with the scope of the PEIR. The proposed treatment types include, mechanical, manual, prescribed burning, and herbicide application. The SPRs applicable to this treatment project are AD-4, AQ-1, AQ-2, AQ-3, AQ-4, and AQ-6. SPR AQ-5 would not apply because no naturally occurring asbestos is mapped within the treatment areas.[4] The components of Mitigation Measure AQ-1 that have been determined by the project proponent to be feasible and would be implemented to reduce emissions include the use of gasoline-powered equipment and encouraging carpooling to the project site. Equipment meeting Tier 4 emission standards, Best Available Control Technology for emissions reductions of NOX and PM on equipment and the use of renewable fuel would be implemented to the best extent feasible. Based on the implementation of applicable SPR's 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 SPR's and Mitigation Measure cannot be determined, therefore, the potential for impact remains potentially significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR Volume II 3.4.3, page 26-33).

PSA Addendum – Impact AQ-1

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

Impact AQ-2

Use of vehicle and mechanical equipment during initial and maintenance treatments has the potential to expose people to diesel particulate matter emissions. The potential to expose people to diesel particulate matter emissions was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, page 33-34). Diesel particulate matter emissions from the proposed treatments are within the scope of the PEIR because the exposure potential is the same as analyzed in the PEIR, and the types and amount of equipment that would

[4] USGS Naturally Occurring Asbestos Layer from Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California: https://www.arcgis.com/apps/webappviewer/index.html?id=da4b648958844134adc25ff002dbea1c. Accessed: 06/23/2022

be used, as well as the duration of use, during proposed treatments are consistent with those analyzed in the PEIR. Based on the implementation of SPRs applicable to this project, including SPR HAZ-1, NOI-4, and NOI-5, and consistency with the PEIR, this impact would remain less than significant.

PSA Addendum – Impact AQ-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 PEIR. However, within the boundary of the project area, the air quality conditions and sensitive receptors (i.e., exposure potential) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-3

This Impact does not apply to the treatment project, because no naturally occurring asbestos is mapped in the treatment area.

Impact AQ-4

Prescribed burning in the form of pile and/or broadcast burning during initial and maintenance treatments has the potential to expose people to toxic air contaminants, which was examined in the PEIR. The duration and parameters of prescribed burning are within the scope of activities analyzed in the PEIR and will be consistent with parameters imposed by the Bay Area Air Quality Management District and for those impacts analyzed in the PEIR for San Mateo County. Therefore, the potential for exposure to toxic air contaminants is also within the scope of the PEIR. SPRs applicable to these treatment activities include AD-4, AQ-2, AQ-3, and AQ-6. All feasible measures to prevent and minimize smoke emissions and minimize exposure to smoke are included in the SPRs. No additional mitigation measures are feasible, and this impact would remain significant and unavoidable, as explained in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, pages 35-37).

PSA Addendum – Impact AQ-4

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the 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 significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact AQ-5

The use of vehicles and mechanical equipment during initial and maintenance treatments has the potential to expose people to odors form diesel exhaust. The potential to expose human receptors to diesel exhaust was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, page 37-38). The potential impacts associated with the release of objectionable odors from diesel exhaust during maintenance treatments is within the scope of the PEIR because treatment activities are consistent with those analyzed in the PEIR. The project will comply with the following SPRs to minimize potential impacts associated with diesel exhaust exposure: HAZ-1 (properly maintain all diesel and gasoline-powered equipment), NOI-4 (stage all equipment as far as possible from noise-sensitive receptors), and NOI-5 (restrict equipment idle time). Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact remains less than significant.

PSA Addendum – Impact AQ-5

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the 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 less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was analyzed in the PEIR.

Impact AQ-6

Prescribed burning in the form of pile and broadcast burning during initial and maintenance treatments has the potential to expose people to objectionable odors, as described in the PEIR (CalVTP Final PEIR Volume II 3.4.3, page 38-39). The duration and parameters of the prescribed burn operations and the exposure potential are consistent with the activities analyzed in the PEIR. For this reason, the potential for exposure to objectionable odors from smoke is also within the scope of impacts covered in the PEIR.

SPRs that are applicable to these treatment types include AD-4, AQ-2, AQ-3, and AQ-6. No additional mitigation measures are feasible, and this impact would remain potentially significant and unavoidable, as explained in the PEIR. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact remains potentially significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR Volume II 3.4.3, page 38-39).

PSA Addendum – Impact AQ-6

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

New Air Quality Impacts

The proposed treatments are consistent with the treatment types and activities analyzed in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the CalVTP PEIR's environmental and regulatory settings (CalVTP Final PEIR Volume II Sections 3.4.1 and 3.4.2).

PSA Addendum – New Air Quality Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to air quality that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts are the same. The impacts associated with the proposed treatment project are consistent with those covered in the PEIR. There are no changed circumstances present that would lead to new significant impacts not addressed in the CalVTP PEIR. Therefore, no new impact related to air quality would occur.

3.4 EC-Archaeological, Historical, and Tribal Cultural Resources

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

According to a records search completed by State Parks Associate Archaeologist, Michael Grone, in consultation with retired State Parks Archaeologist, Mark Hylkema, and completed on June 30, 2022, there are no recorded sites with the potential to be impacted by project activities. However, large portions of the project property have not previously been systematically surveyed. Any previously unrecorded sites that are discovered during project activities and development of Archaeological Survey Reports (ASR) (SPR CUL-4) will be avoided, protected, and recorded accordingly. Furthermore, California Department of Parks and

Recreation Historian II and Tribal Liaison, Martin Rizzo-Martinez, reached out to all affiliated tribal contacts on June 27, 2022, however, there was no response. Additionally, a Sacred Lands file search was requested to the Native American Heritage Commission and no sites were identified in the project area. A full Archaeological Survey Report will be completed and submitted to the NWIC prior to implementation of project activities.

Impact CUL-1

Initial and maintenance treatments including manual, mechanical, and prescribed burning have the potential to damage historical resources. The potential for these treatments to cause a substantial adverse change in significance to built historical resources was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, pages 14-15). The potential to cause disturbance to, damage to, or destruction of built-environment structures during implementation of treatment activities is within the scope of the PEIR because the treatment activities and levels of disturbance are consistent with those addressed in the PEIR. SPRs that will be applied include the following: an archaeological and historical resource records search will be conducted (SPR CUL-1), identified built historic resources will be avoided via the installation of a 100 foot butter for mechanical and prescribed burning treatments (SPR CUL-7), and all crew members and contractors implementing treatment activities will be trained on the protection of sensitive archaeological, historical, and tribal resources and avoidance measures for encountered or discovered archaeological resources (SPR CUL-8). Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact remains less than significant. This impact is within the scope of the PEIR because the intensity of ground disturbance of the treatment project is consistent with that analyzed in the PEIR.

PSA Addendum – Impact CUL-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, the potential to encounter built-environmental structures that have not yet been evaluated for historical significance in areas outside of the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact to historical resources is also less than significant. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact CUL-2

Initial and maintenance treatments including manual, herbicide, prescribed burning treatment types do not have the potential to cause a substantial adverse change in the significance of unique archaeological resources or subsurface historical resources because they do not involve significant soil disturbance. However, mechanical treatment types utilizing heavy equipment have the potential to churn up the ground surface during treatments as vegetation is removed, which may result in damage to known or previously unknown archaeological resources, as described in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, pages 15-16). Per the PEIR, a record search was conducted for the project area and confirmed on June 30, 2022 by California State Parks Associate State Archaeologist, Michael Grone (SPR CUL-1), all geographically affiliated Native American tribes will be contacted and notified of treatment activities (SPR CUL-2), pre-field research will be conducted prior to treatment activities (SPR CUL-3), a survey will be conducted prior to treatment (SPR CUL-4), and any identified archaeological sites will be avoided or treated, pursuant to SPR CUL-5. Additionally, all crew members and contractors will be trained prior to treatment activities, pursuant to SPR CUL-8. The potential for these treatment activities to result in an inadvertent discovery and subsequent damage of unique archaeological resources or subsurface historical resources during vegetation treatment was examined in the PEIR. This impact was identified as significant and unavoidable in the PEIR because of the large geographic extent of the treatable landscape and the possibility that there could be inadvertent

damage of unknown resources. For this project, Mitigation Measure CUL-2 will require that if a prehistoric or historic-era subsurface archaeological feature or deposit is discovered, all ground disturbing activities within 100 feet of the resource will be halted, and every reasonable effort to identify and protect the resource would be applied. The implementation of the applicable SPR's and Mitigation Measure CUL-2 would reduce impacts to inadvertent discoveries, however, it is uncertain if these measures would avoid substantial adverse change to the resource. Therefore, this impact would be significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, pages 15-16).

PSA Addendum – Impact CUL-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 PEIR. However, within the boundary of the treatment 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 considered significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a more severe significant impact than what was covered in the PEIR.

Impact CUL-3

The potential for the initial and maintenance treatment types of this project to cause a substantial adverse change in the significance of a tribal resource were examined in the PEIR. Proposed treatment activities include manual, mechanical, herbicide, and prescribed burning treatment types. As explained in the PEIR, implementation of SPRs would avoid any substantial adverse change to cultural resources identified within the treatment project. The potential for significant impacts to tribal resources during implementation of the proposed treatment project is within the scope of the PEIR because the activities, impacts, and intensity of ground disturbing activities are consisted with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 17). An informational request letter was sent out to the geographically affiliated tribes on July 27, 2022. SPRs CUL-1-6 and CUL-8 would apply to this treatment project. Based on the implementation of applicable SPR's and consistency with the scope of the PEIR, this impact remains less than significant.

PSA Addendum – Impact CUL-3

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the tribal cultural affiliations present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact to tribal cultural resources is also less than significant, as described above. This determination is consistent with the PEIR wand would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact CUL-4

Initial and maintenance treatments include the use of heavy equipment, which has the potential to uncover human remains. The records search conducted by California State Parks Associate State Archaeologist, Michael Grone, on June 30, 2022 did not reveal any burials or sites containing human remains. The potential for treatment activities to uncover human remains was examined the PEIR. This impact is within the scope of the PEIR because the intensity of ground disturbance is consisted with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 18). Per the PEIR, the project would comply with California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 in the event human remains are discovered. No SPRs are applicable to this impact. Based on the compliance with the above Health and Safety Code and Public Resource Code and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact CUL-4

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, the potential for uncovering human remains during implementation of the treatment project is essentially the same within and outside the treatable landscape and treatment activities; therefore, the impact related to disturbance of human remains is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Archaeological, Historical, and Tribal Cultural Resource Impacts

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the PEIR (CalVTP Final PEIR Volume II Section 3.5.1 and 3.5.2).

PSA Addendum – New Archaeological, Historical, and Tribal Cultural Resource Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a changed circumstance to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, the existing environmental and regulatory conditions pertinent to archaeological, historical, or tribal cultural resources that are present in the areas outside of the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to archaeological, historical, or tribal cultural resources or human remains would occur.

3.5 EC-Biological Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	LTS	Impact BIO-1, pp 3.6-131–3.6.138	Yes	AQ-1 BIO-1 BIO-2 BIO-7 BIO-9 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-4 HYD-5	BIO-1a BIO-1b	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTS (all wildlife species except bumble bees) S&U (bumble bees)	Impact BIO-2, pp 3.6-138–3.6-184	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-8 BIO-9 BIO-10 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HAZ-5 HAZ-6 HYD-4 HYD-5	BIO-2a BIO-2b BIO-2c BIO-2g BIO-3a BIO-3b BIO-3c BIO-4	LTSM (all wildlife species except bumble bees) S & U (bumble bees)	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	LTS	Impact BIO-3, pp 3.6-186–3.6-191	Yes	BIO-1 BIO-2 BIO-3 BIO-4 BIO-5 BIO-6 BIO-8 BIO-9 HYD-4 HYD-5	BIO-3a BIO-3b BIO-3c	LTS	No	Yes

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTS	Impact BIO-4, pp 3.6-191–3.6-192	Yes	BIO-1 BIO-2 GEO-1 GEO-3 GEO-4 GEO-5 GEO-7 HYD-4	BIO-4	LTS	No	Yes
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTS	Impact BIO-5, pp 3.6-192–3.6-196	Yes	BIO-1 BIO-4 HYD-1 HYD-4	BIO-5	LTS	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	BIO-1 BIO-2 BIO-3 BIO-5 BIO-12	NA	LTS	No	Yes
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	No Impact	Impact BIO-7, pp 3.6-198–3.6-199	Yes	None	NA	No Impact	No	Yes
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan	No Impact	Impact BIO-8, pp 3.6-199–3.6-200	No	None	NA	No Impact	NA	NA

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Pursuant to SPR BIO-1, a data review of project-specific biological resources and reconnaissance level survey of the project area was conducted. The CalVTP Final PEIR Appendix BIO-3 Tables 1a and 1b were used to identify species known or with potential to occur within the Central California Coast ecoregion and their associated California Wildlife Habitat Relationship (CWHR) types that may be present within or in proximity to treatment areas. The CNDDB BIOS 5 and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database were used to identify the state and federally listed species that may be present within 5 miles of Butano State Park property boundaries. The search yielded forty-seven federal and state threatened, endangered, or candidate species, CDFW species of special concern, and candidate species, and the California Native Plant Society's (CNPS) California Rare Plant Rank (CRPR) List 1 and 2. Through the course of field investigations and subsequent botanical surveys, one additional plant, and three additional wildlife species with potentially suitable habitat were evaluated. The species reviewed through the initial reconnaissance level survey are listed and impacts to each species are analyzed within Attachment C: Biological Resources Species List and Analysis.

Initial discussions with CDFW were held on July 22, 2022 between SMRCD, during the planning phase of this project. California State Parks Senior Environmental Scientist, Portia Halbert, sent CDFW the full draft PSA on September 15, 2022 and comments were received and incorporated on September 29, 2022. Discussions were held with The United States Fish and Wildlife Service (USFWS) during the planning phase of this project, specifically regarding marbled murrelet protection measures. Additionally, a draft of this document was sent to USFWS on September 15, 2022, with a response received September 30, 2022. Finally, project management team include California State Parks Environmental Scientists with USFWS section 10(a)(1)(A) permits for California red-legged frogs and San Francisco garter snakes.

Through the initial reconnaissance level survey, there were fifteen special-status plants identified as having potentially suitable habitat located within treatment areas which are not known to occupy the project property. These include King's mountain manzanita (*Arctostaphylos regismontana*), Ben Lomond spineflower (*Chorizanthe pungens var. hartwegiana*), Franciscan thistle (*Cirsium andrewsii*), San Mateo woolly sunflower (*Eriophyllum latilobum*), Stinkbells (*Fritillaria agrestis*), fragrant fritillary (*Fritillaria liliacea*), Toren's grimmia (*Grimmia torenii*), Point Reyes meadowfoam (*Limnanthes douglasii spp. Sulphurea*), arcuate bush-mallow (*Malacothamnus arcuatus*), marsh silverpuffs (*Microseris paludosa*), Kellman's bristle moss (*Orthotrichum kellmanii*), Dudley's lousewort (*Pedicularis dudleyi*), white-flowered rein orchid (*Piperia candida*), Choris' popcornflower (*Plagiobothrys chorisianus var. chorisianus*), and Santa Cruz microseris (*Stebbinsoseris decipiens*). Furthermore, special-status plants with previously known occurrences within the project property boundary as well as within treatment units include Anderson's manzanita (*Arctostaphylos andersonii*) and minute pocket moss (*Fissidens pauperculus*).

Additionally, California State Parks Senior Environmental Scientist (Specialist)/ Botanist, Tim Hyland, conducted a focused survey areas in June and July of 2022, during a period of time when all vascular plants could be identified to a sufficient taxonomic level. Through the course of this botanical survey two special status plant species were detected: Anderson's manzanita (*Arctostaphylos andersonii)* and California bottle-brush grass (*Elymus californicus*). Survey protocol and species-specific recommendations are located in Attachment F: Botanical Survey Report.

Special-status wildlife species that have a known occurrences within the project property boundary and within treatment units include the California giant salamander (*Dicamptodon ensatus*), marbled murrelet (*Brachyramphus marmoratus*) and the American badger (*Taxidea taxus*).

There are two special-status wildlife species that occur within the project property and are outside of the treatment areas including the California red-legged frog (*Rana draytonii*) and the Santa Cruz black salamander (*Aneides niger*).

Special-status wildlife species that have potentially suitable habitat within the project properties or treatment areas, but no known occurrences, include the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) pallid bat (*Antrozous pallidus*), western bumble bee (*Bombus occidentalis*), Townsend's big eared bat (*Corynorhinus townsendii*), mountain lion (*Puma concolor*), dusky-footed woodrat (*Neotoma fuscipes annectens*), and western pond turtle (*Emys marmorata*).

A map delineating vegetation types and potential sensitive habitats or natural communities within the treatment areas was developed using the San Mateo Countywide Fine Scale Vegetation Map and Landscape Database (SMC FSCVMLD) in combination with aerial photos and field verification points per SPR BIO-3 (Attachment B, Maps 6, 7, and 8). Butano State Park treatment areas contain the following vegetation types according to FSCVMLD, aerial photos, and field verification points:

- Arroyo Willow Alliance
- California Bay Forest and Woodland Alliance
- California grassland
- Shrubland – non-sensitive (shrub fragment mapping unit, *Ceanothus thyrsiflorus* Alliance, *Gaultheria shallon – Rubus ursinus* Alliance, *Toxicodendron diversilobum* Alliance (*T. diversilobum Baccharis pilularis* Association), and *Quercus wislizeni – Quercus chrysolepis* (shrub) Alliance)
- Shrubland – sensitive (*Frangula californica* ssp. *californica – Baccharis pilularis/Scrophulara californica* Association)
- Coastal scrub – non-sensitive (shrub fragment mapping unit, *Baccharis pilularis* Alliance, and *Acer marcophyllum – Alnus rubra* Alliance)
- Coastal Scrub – sensitive (Mesic Coastal Scrub Mapping Unit)
- Douglas-fir – Tanoak alliance
- Glossy Leaf Manzanita – Golden Chinquapin Alliance
- Knobcone Pine Alliance[5]
- Live Oak Alliance
- Redwood Alliance
- Shining Willow Grove Alliance
- Tanoak Alliance
- Wet Meadow (*Carex barbarae* Alliance)
- Wooly Leaf Manzanita Alliance

[5] The majority of the Knobcone Pine Alliance within the project property boundaries experienced significant mortality during the August CZU Lightning Complex Fires. It's expected that these areas will revegetate with primarily chaparral species.

Table 3. Fine Scale Vegetation Types by Treatment Area Footprint

Fine Scale Vegetation Types	Acres within the Coastal Zone	Acres Outside of the Coastal Zone	Total Treatment Footprint Acreages
Arroyo Willow Alliance	13.9	0.0	13.9
California Bay Forest and Woodland Alliance	0.0	0.2	0.2
California Grassland	30.0	2.4	32.4
Coastal Scrub – Non-Sensitive	117.6	0.0	117.6
Coastal Scrub – Sensitive	17.3	0.0	17.3
Douglas-fir – Tanoak Alliance	540.7	62.7	603.4
Glossy Leaf Manzanita – Golden Chinquapin Alliance	8.7	9.1	17.8
Knobcone Pine Alliance	4.5	35.4	39.9
Live Oak Alliance	14.3	0.4	14.8
Redwood Alliance	821.3	277.9	1099.2
Shining Willow Grove Alliance	0.6	0.0	0.6
Shrubland – Non-sensitive	14.8	2.4	17.2
Shrubland – Sensitive	12.4	0.0	12.4
Tanoak Alliance	0.0	46.9	46.9
Wet Meadow	4.6	0.0	4.6
Wooly Leaf Manzanita Alliance	9.9	55.4	65.3

Table 4. Special-Status Plant and Wildlife Species with Potential to Occur within the Project Property Boundary

Special-Status Plants	Listing Status			Habitat	Potential for Occurrence
	Federal	State	CRPR		
Anomobryum julaceum (slender silver moss)	--	--	4.2	Most commonly found in wet crevices and on sandstone cliffs or other seepy niches.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Arctostaphylos andersonii (Santa Cruz manzanita)	--	--	1 B.2	Broadleaved upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest. 197 to 2493 ft in elevation. Blooms November-May.	Known to occur within the Butano State Park property boundary in the eastern region of the park north of Little Butano Creek and south of Olmo Fire Road.
Arctostaphylos regismontana (Kings Mountain manzanita)	--	--	1 B.2	Broadleaved upland forest, chaparral, north coast coniferous forest. Granitic or sandstone outcrops. 787 to 2313 ft in elevation. Blooms December-April.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Chorizanthe pungens var. hartwegiana (Ben Lomond spineflower)	E	--	1 B.1	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 344 to 1558 ft in elevation. Blooms April-July.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Cirsium andrewsiil (Franciscan thistle)	--	--	1 B.2	Coastal bluff scrub, broadleaved upland forest, coastal scrub, coastal prairie. Sometimes serpentine seeps. 0 to 492 ft in elevation. Blooms March-July.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Eriophyllum latilobum (San Mateo woolly sunflower)	E	E	1 B.1	Cismontane woodland, coastal scrub, lower montane coniferous forest. Often on roadcuts; found on and off of serpentine soils. 98 to 2001 ft in elevation. Blooms May-June.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.

Fissidens pauperculus (minute pocket moss)	--	--	1 B.2	Redwood. North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 33 to 3360 ft in elevation.	Known to occur within the Butano State Park property boundary at one location north of the main entrance and Little Butano Creek on the west side of the park.
Fritillaria agrestis (Stinkbells)	--	--	4.2	*Fritillaria agrestis* grows in heavy soils, particularly clay, and does well in dry shade under oak canopies in depressions below 500m in elevation.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Fritillaria liliacea (fragrant fritillary)	--	--	1 B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 10 to 1312 ft in elevation. Blooms February-April.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Grimmia torenii (Toren's grimmia)	--	--	1 B.3	Cismontane woodland, lower montane coniferous forest, chaparral. Openings, rocky, boulder and rock walls, carbonate, volcanic. 1066 to 3806 ft in elevation.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Hesperocyparis abramsiana var. butanoensis (Butano Ridge cypress)	T	E	1 B.2	Butano Ridge within the Santa Cruz Mountains within chaparral or closed-cone pine forest communities between 400 and 490 meters in elevation.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Limnanthes douglasii spp. sulphurea (Point Reyes meadowfoam)	--	E	1 B.2	Coastal dunes, coastal bluff scrub, coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 16 to 1198 ft in elevation. Blooms May-July.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Malacothamnus arcuatus	--	--	1 B.2	Chaparral, cismontane woodland. Gravelly	May occur. The Butano State Park property may

(Arcuate bush-mallow)				alluvium. 3 to 2411 ft in elevation. Blooms April-September.	contain potentially suitable habitat for this species.
Microseris paludosa marsh silverpuffs	--	--	1 B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 16 to 984 ft in elevation. Blooms April-June (July).	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Orthotrichum kellmanii (Kellman's bristle moss)	--	--	1 B.2	Chaparral, cismontane woodland. Sandstone outcrops with high calcium concentrations from eroded boulders out of non-calcareous sandstone bedrock. Rock outcrops in small openings within dense chaparral with overstory of scattered Pinus attenuata. 1125 to 2247 ft in elevation. Blooms January-February.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Pedicularis dudleyi (Dudley's lousewort)	--	R	1 B.2	Valley and foothill grassland. Deep shady woods of older north coast redwood forests; also in maritime chaparral. 197 to 2953 ft in elevation. Blooms April-June.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Piperia candida (White-flowered rein orchid)	--	--	1 B.2	North coast coniferous forest, lower montane coniferous forest, broadleafed upland forest. Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 148 to 5299 ft in elevation. Blooms (March), May-September.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.

Plagiobothrys chorisianus var. chorisianus (Choris' popcornflower)	--	--	1 B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites. 49 to 525 ft in elevation. Blooms March-June.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Plagiobothrys diffuses (San Francisco popcornflower)	--	E	1 B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence. 148 to 1181 ft in elevation. Blooms March-June.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Stebbinsoseris decipiens (Santa Cruz microseris)	--	--	1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 33 to 1640 ft in elevation. Blooms April-May.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Special-Status Wildlife	Listing Status			Habitat	Potential for Occurrence
	Federal	State	Other		
Aneides niger (Santa Cruz Black Salamander)	--	SSC	--	Occurs in mixed deciduous woodland, coniferous forests, and coastal grasslands in California. This species can be found in riparian areas near streams and under damp debris, but do not inhabit streams.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Antrozous pallidus (Pallid Bat)	--	SSC	--	Favors rocky outcrops in semi-arid climates within grasslands, chaparral, oak woodlands, and coniferous forests. The pallid bat diet consists of ground-dwelling	May occur. The Butano State Park property may contain potentially suitable habitat for this species.

				prey like small mammals or reptiles and large flying or ground-dwelling insects.	
Brachyramphus marmoratus (marbled murrelet)	T	E	--	Favors nesting sites in old-growth coniferous forests or rocky talus slopes near the Pacific Ocean, up to approximately 15 miles inland. The marbled murrelet nests on large branches approximately 4 inches in diameter or larger that create a platform that may be screened from predators or wind by branches of nearby trees, where the female will lay one yellow, olive, or blue-green egg with brown, black, and lavender specks. This seabird forages in coastal marine habitats, dieting on primarily fish and crustaceans.	Known to occur within the Butano State Park property boundary. There are six known occurrences within the park boundary, three of which are along Little Butano Creek, one is approximately 0.5 miles south of Little Butano Creek, another is approximately 0.7 miles north of Little Butano Creek near Girl Scout Camp Butano Creek, and the last known occurrence is located near the northern boundary of the park between Butano Fire trail and South Fork Butano Creek.
Bombus occidentalis (western bumble bee)	--	CE	--	Associates with a wide range of flowering plants and crops within open coniferous, deciduous and mixed-woodland forests, wet and dry meadows. The western bumble bee is capable of foraging in cold, rainy weather conditions and commonly nests underground.	May occur. The Butano State Park property may contain potentially suitable habitat for this species.
Corynorhinus townsendii (Townsend's Big-Eared Bat)	--	SSC	--	Favors dense coniferous forests, native prairies, and coastal communities usually below 10,800 feet in elevation. This bat prefers dark, open caves or cliffs in cold areas for roosting and	May occur. The Butano State Park property may contain potentially suitable habitat for this species.

				does not roost in rock crevices. The primary food source for this species is moths, however, beetles and other small insects are also common.	
Dicamptodon ensatus California Giant Salamander	--	SSC	--	Requires habitat with cover for hiding, sun protection, and breeding and can be found under rocks, logs, or stones. This species' aquatic habitat consists of lakes, ponds, rivers, streams, or fast-moving water. Females deposit 85-200 eggs underwater and protect the eggs until they hatch. This species has a relatively slow reproduction rate due to long gestation period and they do not reach sexual maturity until they are 5-6 years old.	Known to occur within the Butano State Park property boundary. There are three known occurrences within the park boundary; one is on Canyon Road approximately 0.3 miles east of Cloverdale Road, one is along Little Butano Creek approximately 1 mile upstream from Cloverdale Road, and one is just north of Gazos Creek approximately 0.4 miles west of the pond at the confluence with Old Woman's Creek.
Emys marmorata (Western Pond Turtle)	--	SSC	--	Habitat consists of aquatic and terrestrial environments, including lakes rivers, streams, ponds, wetlands, vernal pools, creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Adults favor deep waters while juveniles favor shallow waters, however, both prefer slow moving water. Terrestrial habitats consist of burrows in leaves or soil during the winter season. Nests are built away from water in flat areas with short vegetation and dry soils. The western pond turtle feeds on	May occur. The Butano State Park property may contain potentially suitable habitat for this species.

				crustaceans, midges, fish, dragonflies, beetles, and other invertebrates and algae or plant material. Development is a threat to this species.	
Neotoma fuscipes annectens (San Francisco ducky-footed woodrat)	--	SSC	--	Prefers moderate canopy coverage in oak woodland, chaparral or shrubland, and coniferous forest communities.	May occur. The treatment areas and property boundaries contain potentially suitable oak woodland, chaparral or shrubland, and coniferous forest habitat for this species.
Puma concolor (mountain lion)	--	CT	--	Prefers dense vegetative areas within mountain ranges of coniferous forests, scrub and oak woodlands, and arid communities.	Likely to occur. The treatment areas and property boundaries contain potentially suitable coniferous forest and oak woodland habitat for this species.
Rana boylii (foothill yellow-legged frog)	SSC	E	--	Habitat is primarily foothill and mountain streams with rocky substrate in open, sunny banks within forests, chaparral, or woodland communities.	Unlikely to occur. This species favors wide gravel streambeds with significant basking habitat. This habitat does not occur within the park.
Rana draytonii (California red-legged frog)	T	SSC	--	Common habitat consists of locations near ponds or along streams in humid forests, grasslands, and coastal scrub communities that contain plant cover. This species breeds in permanent water sources and requires moist refuges, like animal burrows, for cover in the dry season.	Known to occur within the Butano State Park property boundary. There are two known occurrences within the park boundary; one directly off of Cloverdale Road over half a mile away from proposed treatment units and the other near the Middle Fork Gazos Creek over 1.4 miles from proposed treatment units.
Taxidea taxus (American Badger)	--	SSC	--	Habitat consists of open areas such as prairies, farmland, and plains as well as edges of woods. The American badger is a nocturnal carnivore and	Known to occur within the Butano State Park property boundary. There is one known occurrence within the park boundary off of Butano Fire road

				its diet primarily consists of small rodents, reptiles, birds, and insects.	near the center of the park.

CE – Candidate Endangered

CT – Candidate Threatened

E – Endangered

SSC – Species of Special Concern

WL – Watch List

California Rare Plant Rank (CRPR)

1B - Plant species rare or endangered in California and elsewhere (Not protected under ESA or CESA)
0.1 - Seriously threatened in California (over 80% of occurrences are threatened; high degree and immediacy of threat)

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

Impact BIO-1

Initial and maintenance treatments include the use of manual and mechanical vegetation removal, prescribed broadcast and pile burning, as well as herbicide application. These activities have the potential to impact 17 special-status plant species, two of which have known occurrences within the project area and 15 of which are not known to occupy the project property, however, have suitable habitat located within treatment areas. The potential for adverse effects to special-status plants is within the scope of the activities and impacts addressed in the PEIR because the activities and level of disturbance planned for this project are consistent with those analyzed in the PEIR. As discussed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 133-134), prescribed burning has the potential to directly burn or scorch special-status plants, mechanical treatments may directly disturb special-status plants through masticating, tilling or grubbing, manual treatments may impact special-status plants through trampling by ground workers, and finally herbicide application may impact special-status plants through inadvertent drift of chemicals to non-target species. However, the removal of dense understory plants and invasive species through manual, mechanical, and burning treatments, as well as increase in canopy gaps produced by removal of codominant trees will promote regeneration of native species that supports a healthier residual ecosystem. Applicable SPRs to this project include SPR BIO-1, BIO-2, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, and HYD-4.

Special-Status Plants

According to the CNDDB BIOS search there are 17 special-status plant species with potentially suitable habitat in the project area. Two of these species (Anderson's manzanita and minute pocket moss) have known occurrences within the prescribed burn treatment area. Fifteen special-status plants have potentially suitable habitat within the project area but contain no known occurrences (King's mountain manzanita, Ben Lomond spineflower, Franciscan thistle, San Mateo woolly sunflower, Stinkbells, fragrant fritillary, Toren's grimmia, Point Reyes meadowfoam, arcuate bush-mallow, marsh silverpuffs, Kellman's bristle moss, Dudley's lousewort, white-flowered rein orchid, Choris' popcornflower, and Santa Cruz microseris). An analysis for the potential impact on each special-status plant species that may occur within 5 miles of the project property boundary has been completed (Attachment C). Reconnaissance level surveys will be conducted prior to operations to determine occupancy of special-status species that have potential to occur in the project area. Periodic reconnaissance level surveys will continue at this property throughout the life of the PSA, at a minimum of every five years as required by CDFW. If any California Endangered Species Act (CESA) or

Federally Endangered Species (ESA) listed plant is encountered, operations shall cease in proximity, and the area shall be avoided. California State Parks staff, or their supervised designee shall be notified immediately.

Pursuant to SPR BIO-7, the project proponent will perform a protocol-level survey for special-status plants. Where protocol-level surveys identify the presence of special status plants, Mitigation Measure BIO-1a would be implemented for any CESA or ESA listed species. All other special-status plants would be covered under Mitigation Measure BIO-1b. Per mitigation measure BIO-1b, if special-status plants are identified during subsequent surveys, a no-disturbance buffer of at least 50 feet will be established around the area occupied by the species within which mechanical, manual, herbicide, and prescribed burning ignitions will not occur. The exception to these Mitigation Measures will occur if it is determined by a qualified RPF or botanist, in consultation with CDFW and USFWS when appropriate, that the listed plants would benefit from the treatment in occupied habitat area even though individual listed plants may be lost during treatment activities.

The potential for treatment activities to result in adverse effects on special-status plants was examined in the PEIR. This impact on special-status plants is within the scope of the PEIR because the treatment activities, intensities, duration, and equipment are consistent with those analyzed in the PEIR. Based on the implementation of the applicable SPR's and Mitigation Measures and consistency with the PEIR, this impact would remain less than significant.

PSA Addendum – Impact BIO-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape; therefore, the potential impact on special-status plants is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than was covered in the PEIR.

Impact BIO-2

The proposed project could result in direct or indirect adverse effects on special-status wildlife species and habitat suitable for these species within the treatment area, as described in the following sections. The potential for adverse effects to special-status wildlife species is within the scope of the activities and impacts addressed in the PEIR because the activities and level of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape; therefore, the potential impact on special-status wildlife is also the same as described above.

Special-Status Wildlife

According to the CNDDB BIOS search, there are five special-status wildlife species known to occur within Butano State Park (Marbled murrelet, California giant salamander, Santa Cruz black salamander, California red-legged frog, and American badger) and five special status wildlife species that have potentially suitable habitat within the project area (Pallid bat, western bumble bee, Townsend's big-eared bat, foothill yellow-legged frog, and western pond turtle). However, through consultation with California State Parks Senior Environmental Scientist, Portia Halbert, suitable habitat for foothill yellow-legged frog does not occur within the treatment area. Additionally, through field evaluations, suitable habitat for mountain lion, San Francisco garter snake, and San Francisco dusky-footed woodrat was determined to occur within the project area as well. Finally, central California coast steelhead trout are known to spawn in Butano Creek, which Little Butano

creek is a tributary of. Presently, there are several barriers to anadromous fish passage into Little Butano creek, and thus no suitable habitat for anadromous steelhead trout exists. If this were to change throughout the lifespan of this permitting document, then impacts to this species will be reevaluated. Within the CalVTP PEIR (Table 3.6-33), the aforementioned species are grouped into the following life history groupings: Fish and Aquatic Invertebrates, Amphibians and Reptiles, Bats, Tree-nesting and Cavity-nesting Wildlife, Burrowing or Denning Wildlife, and Insects and Other Terrestrial Invertebrates. SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-8,, BIO-9, BIO-10, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, HAZ-5, HAZ-6, HYD-3, HYD-4, and HYD-5 will be implemented to minimize impacts, however, Mitigation Measures BIO-2a, BIO-2b, BIO-2g, BIO-3b, BIO-3c, and BIO-4 will also be applied based on the life history groupings to minimize residual impacts after the application of the SPRs. An analysis for the potential for impact on each special-status wildlife species that may occur within 5 miles of the project property boundaries has been completed (Attachment C).

Special-Status Salamanders

Santa Cruz black salamander (*Aneides flavipunctatus niger*) and California giant salamander (*Dicamptodon ensatus*) are two special-status salamanders with potential to occur within the treatment area. California giant salamander is a CDFW species of special concern, whose aquatic habitat includes lakes, ponds, rivers, streams, or fast-moving water. Upland habitat requires cover for sun protection and hiding, such as rocks, logs, or stones. There are three known occurrences within Butano State Park, with one known occurrence inside the proposed treatment boundary. The Santa Cruz black salamander is endemic to California and is a CDFW species of special concern, with one known occurrence in Butano State Park, but outside of the proposed treatment area. Little Butano Creek (class II), Gazos, Creek (class I), several unnamed tributaries to Little Butano Creek, one unnamed tributary to Butano Creek, and a pond at the Gazos Mountain Camp constitute potential aquatic habitat for the species. Both Gazos creek and the Gazos Mountain Camp Pond are located well outside of treatment areas, however, mechanized treatments are proposed approximately 50 feet from the tributary to Butano Creek and 100 feet from Little Butano Creek. Additionally, prescribed burn and manual treatment areas to establish control lines are adjacent to Little Butano Creek and several class II tributaries to Little Butano Creek. Finally, several class III watercourses occur in mechanized designated treatment areas.

The proposed manual, mechanical, herbicide, and prescribed burning treatments have the potential to result in direct or indirect adverse effects on special-status salamanders through temporary impacts to habitats. The potential for treatment activities to result in adverse effects to special-status salamanders was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6, pages 138 – 184).

In accordance with SPR BIO-1, a reconnaissance-level survey will be performed to determine whether there will be any potential for special-status wildlife to occur within the treatment area. However, because California giant salamander and Santa Cruz black salamander have the potential to be present year-round within the treatment area, it is unlikely that the species can be avoided by initial and maintenance treatments. WLPZs adjacent to aquatic habitat within the treatment area would be implemented (SPR HYD-4), which would reduce adverse effects, however, these measures would not result in full avoidance, specifically because prescribed broadcast burning has the potential to burn through WLPZ areas. Depending on the speed and intensity of a prescribed burn, special-status reptiles and amphibians could escape the area during a broadcast burn. Additionally, there may be no permanent adverse effects on burrows and other areas occupied by the species. However, these measures would not result in full avoidance for manual and mechanized treatments. As a result, SPR BIO-10 would apply, requiring focused surveys for special-status salamanders to be conducted within suitable habitat prior to the implementation of treatments. If no special-status salamanders are detected within the treatment area, then no mitigation measures are required.

However, if special-status salamanders are detected, then Mitigation Measure Bio-2b would be implemented, requiring biological monitoring for treatment activities within or adjacent to sensitive habitat areas, flagging for avoidance, relocation of individual animals by qualified individuals with valid permits, and/or other measures required to avoid injury or mortality of the species. These measures would be applied for manual and mechanical treatments where ground disturbance is expected. In addition, to avoid and minimize impacts from herbicides to special-status salamanders, SPR HAZ-5, HAZ-6, and HYD-5 would be implemented. SPRs applicable to this impact include BIO-1, BIO-2, BIO-10, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, HAZ-5, HAZ-6, HYD-1, HYD-4, and HYD-5.

This impact on special-status salamanders is within the scope of the PEIR because the affected salamander species were covered in the PEIR, and the intensity and duration of proposed treatment activities and subsequent disturbance are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

California red-legged frog

The California red-legged frog (CRLF) (*Rana draytonii*) is a federally threatened and California listed Species of Special Concern (SSC). Studies indicate that California red-legged frogs remain close to breeding ponds during the breeding season and typically do not move more than approximately 500 feet into upland habitats (Bulger et al. 2003; Fellers and Kleeman 2007). The CNDDB indicates that California red-legged frog may be present within many locations within 5 miles of Butano State Park and at two locations within the park; one directly off Cloverdale Road, approximately ½ mile away from proposed treatments units and one along the Middle Fork Gazos creek, approximately 1.4 miles from the proposed treatment areas. However, suitable habitat may occur within the treatment areas. There are no suitable watercourses located within mechanically designated treatment areas throughout the project. However, prescribed broadcast burning treatments and manual treatments are located adjacent to Little Butano Creek, a class II watercourse running through the property, as well as several unnamed class II watercourses that serve as tributaries to Little Butano Creek and Butano Creek. Additionally, mechanized treatments are proposed within 500 feet of suitable habitat. According to the PEIR (CalVTP Final PEIR Volume II Section 3.6, page 183), manual treatment would not result in substantial adverse effects on aquatic amphibians, because suitable aquatic habitat has been excluded from the treatable landscape, however, upland habitats may be impacted by treatment activities. Adult and juvenile California red-legged frogs are known to travel through upland habitat (e.g. riparian, woodland, and grassland) to move between breeding and nonbreeding sites 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).

Because there are known occurrences of CRLF within Butano State Park and because the treatment area contains suitable upland habitat, presence is assumed unless surveys demonstrate otherwise. Per SPR BIO-1, a reconnaissance-level survey will be performed prior to treatment activities, as well as periodically throughout the lifespan of this permitting document by a qualified RPF, biologist, or biological monitor, prior to implementation of any treatment activities (i.e., within 7 days of any mechanical, manual, and herbicide) within 300 feet of a Class II stream and within or adjacent to other sensitive habitat areas (e.g., wet intermittent streams, wet seeps), during the dispersal season (October 1 through April 1) or within 24 hours following a rain event greater than one quarter inch. Surveys and monitoring will be performed year-around prior to any activities within 30 feet of a Class II stream and within or adjacent to other sensitive habitat areas (e.g., wet Class III streams, wet seeps). If a California red-legged frog is found during pre-treatment surveys

or enters the project site during treatment activities, all work will stop until the animal leaves on its own. Any observations of CRLF prior to or during treatments will result in a "cease operations" order within 100 feet and a qualified biologist will be consulted to determine appropriate protection measures for the species. The animal may only be moved by persons authorized to do so through State Parks that have the appropriate permits. Manual treatments only shall occur within 30 feet of a class III streams. In addition to the implementation of SPR HYD-4, which sets specific buffers for Class II streams, State Parks will limit mechanical activities outside the Watercourse and Lake Protection Zones.

All herbicide use during project implementation will comply with the herbicide use restrictions in the stipulated injunction issued by the Federal District Court for the Northern District of California to resolve the 2006 case brought against the Environmental Protection Agency by the Center for Biological Diversity. For example, to comply with the injunction, only cut stump and basal bark applications will be allowed in California red-legged frog habitat under the following conditions

Additional avoidance measures for CRLF Include:

- Mechanized operations will cease for 24 hours after a rain event defined as any precipitation resulting in 0.2 inches and up to 1.0 inch in a 24-hour period, throughout the year to avoid dispersing CRLF.
- Mechanized operations will cease for 48 hours after a rain event resulting in precipitation of 1.0 inch to 2.0 inches in a 24-hour period.
- Mechanized operations will cease for 72 hours after a rain event resulting in precipitation of 2.0 inches or greater in a 24-hour period.
- Hand work without the use of tracked chippers or other mechanized heavy equipment may continue following rain events.
- Burn piles shall be inspected by environmentally trained staff familiar with CRLF to ensure frogs are not present prior to ignition. Environmentally trained staff include a qualified RPF, qualified biologist, or supervised trained designee.

SPRs applicable to this impact include SPR BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-8, HAZ-5, HAZ-6, HYD-1, HYD-4, HYD-5, as well as MM BIO-2b. This impact on the California red-legged frog is within the scope of the PEIR because effects on California red-legged frogs were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

San Francisco Garter Snake

The San Francisco garter snake (SFGS) (*Thamnophis sirtalis tetrataenia*) is a state and federally listed Endangered species and a CDFW Fully Protected Species. SFGS is a subspecies of the common garter snake (*Thamnophis sirtalis*) and is endemic to the San Francisco Peninsula, currently restricted to San Mateo County and northwestern Santa Cruz County (USFS 2020b). SFGS are often found in aquatic habitats or in adjacent upland grasslands, meadows, and shrubby areas. SFGS prefer slow moving water (at least 1 foot in depth) with emergent vegetation, ideally near open hillsides with access to adequate sun and cover provided by dense, shrubby vegetation and rodent burrows.

CNDDB occurrences of SFGS within 5 miles of the project property boundary were nondescript, however, two populations are documented to occur within the same general region, one to the south in Año Nuevo State Park, and one to the north in a complex of ponds at Cloverdale Ranch. The closest pond within the Cloverdale Ranch Pond complex is roughly 0.3 miles from the closest mechanized treatment area within the

property. Additionally, access to this upland habitat would require crossing Cloverdale Road, which receives moderate traffic, particularly during the summer months. Furthermore, SFGS have never been documented to occur within the project boundary or within Butano State Park. Additionally, consultations with California State Parks Senior Environmental Scientist, Portia Halbert confirms the unlikeliness of the species to occur within the project boundaries.

Similarly, to CRLF, periodic reconnaissance level surveys will occur within all suitable habitats prior to the initiation of treatment activities (within 7 days). Furthermore, the same seasonal WLPZ buffers applied to CRLF will be applied to SFGS as well. SPR BIO-10 requires the project proponent to perform focused surveys for San Francisco garter snakes within high-traffic upland habitats in treatment areas (including all access routes, parking areas, equipment staging areas, and debris storage areas). This would be conducted by a qualified biologist within 7 days prior to implementation of all mechanical and manual treatments to determine whether San Francisco garter snakes are present.

If San Francisco garter snakes are identified during focused surveys, Mitigation Measure BIO-2a for this species would be implemented. Under Mitigation Measure BIO-2a, the project proponent would require biological monitoring for treatment activities within or adjacent to sensitive habitat areas (e.g., streams, pond, etc.), flagging of areas for avoidance, and/or other measures recommended by CDFW as necessary to avoid injury to or mortality of these species. If a San Francisco garter snake enters a treatment area, all work would stop, and the snake will be allowed to leave on its own. If a San Francisco garter snake enters a treatment area and will not or cannot leave on its own, the biological monitor will contact a USFWS, CDFW, or qualified California State Parks biologists with the necessary permits to determine a course of action.

The potential for treatment activities including maintenance treatments to result in adverse effects on SFGS was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 138 to 184). SFGS is within the scope of the PEIR because effects on SFGS were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Habitat function for San Francisco garter snake would be maintained because treatment activities and maintenance treatments would not occur within aquatic habitat, riparian habitat, or WLPZs adjacent to treatment areas. For prescribed burning treatments, which may burn through suitable upland habitat and manual treatments, which must occur within the watercourse buffers to establish effective control lines, SPR BIO-10 would require the project proponent to perform focused surveys for SFGS. This would be conducted by a qualified biologist within 7 days prior to implementation of all prescribed burning and manual treatments to determine whether SFGS are present. Incorporation of the above-listed SPRs and Mitigation Measures would bring the potential impact to a less than significant level. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Western Pond Turtle

Western pond turtle (WPT) (*Emys marmorata*) is a CDFW species of special concern. Habitat for WPT includes aquatic and terrestrial environments including lakes, rivers, streams, ponds, vernal pools, creeks, reservoirs, agricultural ditches, estuaries, and brackish waters. Throughout much of its range WPT is declining due to urbanization, loss of aquatic habitat, competition, and predation from invasive species (Nicholson et al. 2020). WPT is a highly aquatic species and typically basks near water in open, sunny locations. Terrestrial habits consist of burrows in leaves or soil during winter season, as well as nests which are built in flat areas with short vegetation and dry soils. Preferred oviposition sites are small burrows in friable soils on warm south or west-facing slopes. Breeding typically occurs in April and May (Stebbins 2012).

According to CNDDB, this species is presumed present at two locations within 5 miles of Butano State Park. The closest confirmed occurrence is approximately 1.9 miles to the southwest of the park near Whitehouse Canyon Road. Suitable habitat for WPT occurs adjacent to Little Butano Creek, although the heavily forested nature of the creek and surrounding vegetation does not provide ideal upland nesting sites for WPT. In accordance with SPR BIO-1, a reconnaissance level survey will be performed prior to operations as well as periodically throughout the lifespan of this permitting document. If mechanical and manual treatments that cause ground disturbance would occur within suitable habitat for nesting season for the species (April – August), then SPR BIO-10 would require focused surveys for the species. If focused level surveys indicate occupancy by WPT, then occupied areas shall be flagged and avoided. Additionally, SPRs applied to other non-listed special status herptiles will be applied to WPT as well. Finally, prescribed broadcast burning will not be utilized within 50 feet of identified WPT habitat during nesting season for the species.

The potential for treatment activities including maintenance treatments to result in adverse effects on WPT was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 138 to 184). WPT is within the scope of the PEIR because effects to WPT were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Habitat function for WPT would be maintained because treatment activities and maintenance treatments resulting in ground disturbance would not occur within aquatic habitat, riparian habitat, or WLPZs adjacent to treatment areas. For select treatments that will require treatment within WLPZ designated areas, focused surveys will be applied within two weeks of operations.

Marbled murrelet

The marbled murrelet (MAMU) (*Brachyramphus marmoratus*) is a federally threatened and state endangered seabird that nests in old-growth or very large second-growth Douglas-fir and coast redwood trees. Throughout the entirety of their range, marbled murrelets occur from the Aleutian Islands in Alaska along the Pacific Coast south to Santa Cruz County, California. Marbled murrelets rely on suitable nesting platforms formed by flat or depressed portions of large lateral branches, typical of old trees with complex canopy structures. Within the Santa Cruz Mountains, marbled murrelets typically breed between March and September, relying on the few remaining stands of old-growth trees as well as older stands of second-growth trees.

Butano State Park is located in breeding Zone 6 within the Santa Cruz Mountains. Zone 6 constitutes the northwest Santa Cruz Mountains, extending from Santa Cruz in the south to San Francisco in the north and supports a genetically distinct population of the species. The breeding habitat within Zone 6 generally ranges from the Pilarcitos Creek watershed in the north to the Fall Creek Unit of Henry Cowell Redwoods State Park in the south, with the summit of the Santa Cruz Mountains serving as the easternmost breeding habitat in the region. According to CNDDB, MAMU are known to occur within the Butano State Park property boundary. There are six known occurrences within the park boundary, three of which are along Little Butano Creek, one is approximately 0.5 miles south of Little Butano Creek, one is approximately 0.7 miles north of Little Butano Creek near Girl Scouts of Northern California – Camp Butano Creek, and the last known occurrence is recorded near the northern boundary of the park between Butano Fire Road and South Fork Butano Creek.

In accordance with MM BIO-2A, mortality, injury, and disturbance will be avoided and habitat function maintained through the adoption of the applicable recommended minimization and avoidance measures

outlined in the Avoidance Measure Recommendations for Marbled Murrelets in the Santa Cruz Mountains Following the CZU Lightning Complex (Attachment G). Ongoing MAMU monitoring efforts in Butano State Park include inland forest audio-visual (AV) surveys, radar surveys, and audio recording units (ARUs). Survey locations within or in proximity to Butano State Park include Little Butano, Ben Reis, Girl Scouts Camp, South Butano Ridge, Ray Linder Butano Ridge, Gazos Mountain Camp, Double Low Gazos, and Big Butano Creek.

Per the recommendations in Attachment G and following discussions with CDFW, USFWS, and the California Department of Parks and Recreation the following recommendations will be adhered to:

1. Operational Window: High decibel work in proximity or within areas identified as murrelet habitat, occupied or important habitat areas in the Santa Cruz Mountains may begin on August 5th and continue to March 24th, except for the following conditions:
    a. At sites that are known as prime unburned (pre-CZU Fire) habitat for marbled murrelets, such as areas within Gazos Mountain Camp, where the project proponent will avoid working until September 1st, unless new AV or ARU data suggests different dates when murrelets nest in these areas.
    b. High decibel work may occur year around in areas of the CZU Fire that burned at moderate-high and high severities (https://sig-gis.com/czu-lightning-complex-map/) within the CZU Fire where murrelet habitat was significantly compromised or destroyed.
2. Working Hours: The project proponent will not work during the dawn and dusk period in areas identified as murrelet habitat, occupied or important areas that experienced low or moderate burn severity. Work from 1.5 hours after sunrise to 1 hour before sunset between March 24th – August 5th, or March 24th – September 1st in marbled murrelet important areas within Gazos Mountain Camp.
3. Noise Restrictions: Noise restrictions should be in place that address any chronic noise production or new noise that is 30-35 dB above background. These noises should be carefully evaluated and minimized to the extent possible.
    a. Habitat Buffer: Sound analysis work and data indicates that in areas of low to moderate fire severity, where areas identified as murrelet habitat, occupied or important habitat areas in the Santa Cruz Mountains still exists, buffers can be reduced to 330 feet to allow larger handwork crews and mastication equipment to conduct forest restoration and resiliency treatments greater than normal routine maintenance actions and park use, from March 24th – September 1st within marbled murrelet important areas in Gazos Mountain Camp.
4. Strategic Planning: The project proponent will time forestry work to occur as far from murrelet habitat in the July timeframe and work towards murrelet habitat.
5. Continued monitoring: AV and ARU monitoring should continue in areas where these recommendations are being followed to monitor changes in murrelet behavior supporting adaptive management strategies as needed to protect the species.[6]

The potential for treatment activities including maintenance treatments to result in adverse effects on MAMU was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 138 to 184). MAMU is within the scope of the PEIR because effects to MAMU were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those

[6] Per Attachment G, Recommendations are locally applicable to Santa Cruz District State Parks and San Mateo County Park lands including Big Basin Redwoods State Park, Portola Redwoods State Park, Butano State Park, Pescadero Creek County Park, Memorial County Park and Sam McDonald County Park.

analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR. Furthermore, habitat function for MAMU would be maintained because treatment activities and maintenance treatments would not target potential marbled murrelet nesting habitat.

American Badger

The American Badger is a CDFW species of special concern that is most often found in open areas such as prairies, farmland, and plains, as well as the edge of woodlands. The chaparral, coastal scrub, and grassland habitats throughout the project area may provide suitable habitat for badgers and their pups, who are present between mid-February and early July. According to CNDDB, American badger is presumed to be present in at least one location within Butano State Park as well as one location within 5 miles of the park boundaries. Manual, mechanical, and prescribed broadcast and pile burning treatments could result in disturbance to American badger dens, while herbicide treatments are unlikely to impact dens, however, may cause adverse impacts from exposure to herbicides. The potential for adverse effects from herbicide treatments would be avoided and minimized by implementation of SPR HAZ-5, HAZ-6, and HYD-5.

In accordance with SPR BIO-1, a reconnaissance level survey will be performed prior to operations as well as periodically throughout the lifespan of this permitting document. If mechanical and manual treatments that generate noise or ground vibrations, or prescribed broadcast burning treatments would occur within suitable habitat during American badger pupping seasons (February 15 – July 1), then SPR BIO-10 requires focused surveys for the species. If focused level surveys indicate that American Badgers are present, Mitigation Measure BIO-2b would be implemented, which would mandate a no-disturbance buffer of 100 feet be established around active maternity dens where treatments would not occur within this buffer unless adjusted by a qualified biologist to be larger or smaller to appropriately protect the species. SPRs applicable to this impact are BIO-1, BIO-2, BIO-10, HAZ-5, HAZ-6, and HYD-5. Mitigation Measure BIO-2b is also applicable to this impact.

Habitat function for American badger would be maintained because a sufficient level of downed logs, woody debris, and vegetative material would be retained within the treatment area, which would provide cover and forage for the species. This impact on American badger is within the scope of the PEIR because effects on American badger were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

San Francisco Dusky-footed Woodrat

The San Francisco dusky-footed woodrat (DFWR) (*Neotoma fuscipes annectensi*) is a CDFW listed species of special concern. This rodent species can reach approximately 9 inches in length (body), with an additional 6.5-to-8-inch tail. The San Francisco dusky-footed woodrat has large round ears and light colored, slightly hairy feet. Although CNDDB did not yield any confirmed occurrences for DFWR within 5 miles of the treatment area, it has been determined that potentially suitable habitat for DFWR is present within the treatment area and that DFWR are likely to occur within the treatment area. DFWR construct nests, also known as middens, with vegetative material including grass, leaves, and woody material. Nests can reach up to 8 feet wide and 6 feet tall and are typically occupied by a single adult, except during short periods during pupping season. DFWR prefer moderate canopy cover in oak woodland, chaparral or shrubland, and conifer forest communities.

Manual, mechanical, and prescribed pile and broadcast burning may result in inadvertent disturbance to, injury to, or mortality of individual woodrats or destruction of nests by equipment or personnel.

Furthermore, heavy machinery, personnel, or vehicles may inadvertently destroy occupied nests. While herbicide treatments are not expected to disturb woodrats or nests, they have the potential for adverse effects due to accidental exposure to chemicals. The potential for adverse effects from herbicide treatments would be avoided and minimized by implementation of SPR HAZ-5, HAZ-6, and HYD-5. The potential for treatment activities, including maintenance treatments, to result in adverse effects on San Francisco dusky-footed woodrat was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 138 to 184).

In accordance with SPR BIO-10, a focused survey will be performed prior to operations as well as periodically throughout the lifespan of this permitting document. If San Francisco Dusky-Footed Woodrat nests are detected within treatment areas during focused surveys, a no-disturbance buffer of sufficient size (approximately 5-10 feet) to prevent disturbance would be established around the nests to prevent accidental encroachment by vehicles, equipment, or personnel. If woodrat nests within treatment areas cannot be avoided, nest removal shall occur outside the breeding season if feasible (January 1st - September 30th). If woodrat nests must be removed during the breeding season, they will be slowly removed by hand to determine if young are present. If young are present the nest material shall be replaced and the nest left alone for 2-3 weeks at which time the nest can be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling. Furthermore, as recommended by CDFW, nest removal efforts should not take place during inclement weather or extreme weather conditions and should take place at dusk or dawn when woodrats are least susceptible to predators. Additionally, prior to any nest removal, safety measures should be employed to minimize potential human exposure to possible diseases carried by woodrats. Adequate protection, such as protective clothing, equipment and tools, gloves, and appropriate masks, to ensure safety regarding viruses and diseases potentially carried by rodents.

Pursuant to Mitigation Measure BIO-2b, prescribed broadcast burning will be avoided, when feasible, in known woodrat locations during peak breeding season in mid-spring (April 15 – May 15). SPRs applicable to this impact are BIO-1, BIO-2, BIO-10, HAZ-5, HAZ-6, and HYD-5. Mitigation Measure BIO-2b is also applicable to this impact.

Habitat function for DFWR would be maintained because a sufficient level of downed logs, woody debris, and vegetative material would be retained within the treatment area, which would provide cover and forage for the species. This impact on DFWR is within the scope of the PEIR because the effects on DFWR were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Mountain lion

Mountain lion (*Puma concolor*) is a CDFW candidate endangered species with documented occurrences throughout the Santa Cruz Mountains. Mountain lions have a tan coat with a white cream underside with males ranging from 6 to 8 feet in total length and females ranging from 5 to 7 feet. Mountain lions prefer dense vegetative areas within mountain ranges of conifer forests, scrub and oak woodlands, and arid communities. Mountain lions are opportunistic hunters, primarily feeding on deer and small mammals. Although CNDDB had known documented occurrences within 5 miles of the project property boundary, initial and maintenance treatments would be conducted within suitable year-round foraging habitat.

Mountain lions are most active during dusk and dawn hours, when manual, mechanical, herbicide, and prescribed burn ignitions are unlikely to occur. However, broadcast burn operations have the potential to occur at any time. In addition, mountain lions are likely to avoid areas where treatments are actively being performed due to the increase in noise and human presence. While herbicide treatments are not expected to disturb mountain lions or mountain lion dens, they have the potential for adverse effects due to accidental

exposure to chemicals. The potential for adverse effects from herbicide treatments would be avoided and minimized by implementation of SPR HAZ-5, HAZ-6, and HYD-5. The potential for treatment activities, including maintenance treatments, to result in adverse effects on burrowing or denning special-status wildlife, including mountain lions, was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6 pages 138 to 184).

In accordance with SPR BIO-10, the project proponent will assume presence of mountain lion, and Mitigation Measure BIO-2a would be required. Pursuant to Mitigation Measure BIO-2a, the project proponent will consult with CDFW to determine if habitat function for mountain lion will be maintained following implementation of initial and maintenance treatments. Any mountain lion sightings or detections of dens/rendezvous sites will be immediately reported to CDFW. A 300-foot no-operations buffer will be established around the potential habitat and CDFW will be notified. Operations shall not commence within the no-operations buffer until appropriate buffers and mitigation measures can be determined and approved by CDFW.

Habitat function for mountain lion would be maintained by the project because treatment activities would retain the majority of the dominant canopy for all forested plant communities. Additionally, portions of native shrub habitats, which provide cover for hunting and habitat and forage for prey species will likely be maintained or improved.

Impact on mountain lion is within the scope of the PEIR because effects on burrowing or denning special-status wildlife, which includes mountain lion, were covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Western Bumble Bee

Western bumble bee (*Bombus occidentalis*) is eligible to be listed as a candidate State Endangered Species, however, as of the writing of this document it is not currently listed. Following a decision by the California Superior Court (Almond Alliance of California v. California Fish and Game Commission, 2020) the species was dropped from candidate listing, however, as of May 31, 2022 the California appeals court has ruled that, under certain circumstances, bumble bees can be listed under the state's endangered species laws.

Western bumble bee was historically common throughout the western United states and southern British Columbia (Williams et al. 2014). Western bumble bees are associated with a wide range of flowering plants and crops within coniferous, deciduous, and mixed-woodland forests, and wet and dry meadows. According to CNDDB, the species is presumed to be present at three locations within 5 miles of Butano State Park. The known occurrences are located west and south of the park, with the closest occurrence approximately 1.9 miles southwest of the park near the coast. Habitat for western bumble bee is present in open grassland, shrublands, and wet meadows within the treatment area.

Proposed treatments including manual, mechanical, prescribed pile and broadcast burning, and herbicide treatments have the potential to cause adverse effects to western bumble bee either through the disruption of suitable habitat or through physically killing or disrupting ground-nesting colonies or larva incapable of flight. Pursuant to SPR BIO-10, focused surveys for western bumble bee in wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species will be implemented prior to manual or mechanical treatments. The project proponent will implement the following measures if western bumble bee is identified as feasible per BIO-2g: Prescribed broadcast burning within occupied habitat or suitable habitat for western bumble bees shall occur from October through February, to avoid the bumble bee flight season. Manual and mechanical treatments shall

be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied suitable habitat are retained. For coastal scrub and chaparral habitats, pursuant to SPR BIO-5, 35% relative cover will remain within Ecological Restoration treatment areas within the Coastal Zone. In addition, understory retention requirements described under Section 2.1 Treatment Specifications in forested environments shall provide additional patchy patterns of vegetation retained to support this species temporarily while the understory regenerates. Finally, herbicides shall not be applied to flowering native plants within occupied or suitable habitat during flight season (March through September).

Due to the difficulty in detecting overwintering sites and nesting bumble bees and the determining the occurrence and severity of impacts, for purposes of good faith, full disclosure under CEQA, this impact is designated within the PEIR to be potentially significant and unavoidable. This finding is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Special-Status Bats

Townsend's big-eared bat (TBEB) (*Corynorhinus townsendii*) is a CDFW Species of Special Concern and listed as a "high priority" by the Western Bat Working Group (WBWG). Townsend's big-eared bat is found in nearly all habitats except subalpine and alpine habitats throughout California (Harris 1988c). Roosting habitat includes caves, mines, tunnels, buildings, other human-made structures, and hollows of trees. They favor dense coniferous forests, native prairies, and coastal communities, generally below 3,300 meters in elevation. The TBEB is presumed to be present at two locations within 5 miles of Butano State Park; located to the southwest and north of the park.

The pallid bat (PB) (*Antrozous pallidus*) is another CDFW Species of Special Concern with potentially suitable habitat in the project property. Pallid bats favor rocky outcrops in semi-arid climates within grasslands, chaparral, oak woodlands, and coniferous forests. According to CNDDB pallid bat is presumed to be present at one location within 5 miles of Butano State Park, approximately 2.4 miles to the north of the park.

In accordance with SPR BIO-1, a reconnaissance-level survey will be performed prior to operations as well as periodically throughout the lifespan of this permitting document. If it is determined that either bat species may occur within the treatment area and that adverse effects may occur, then SPR BIO-10 requires focused surveys for the species. If focused surveys locate either bat species, a nesting colony, or a maternity roost the project proponent shall institute a buffer of 250 feet, where manual and mechanical operations would not occur using mechanical equipment. This buffer may be increased or decreased by a qualified biologist to appropriately protect these species.

Any trees with signs of active maternity roosts that need to be removed for health and safety will be removed outside of active roosting season (April 1 – August 31). Incorporation of the above-listed SPRs and Mitigation Measures would bring the potential impact to less than significant level. This impact of the proposed project is consistent with the PEIR and would not constitute a substantially more sever significant impact than what was covered in the PEIR.

Conclusion

As state previously, SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-8,, BIO-9, BIO-10, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, HAZ-5, HAZ-6, HYD-4, and HYD-5 will be implemented to minimize impacts, however, Mitigation Measures BIO-2a, BIO-2b, BIO-2g. BIO-3b, and BIO-3c will also be applied based on the life history groupings to minimize residual impacts after the application of the SPRs. Based on the survey protocols and pre-operational meetings, the proximity of special-status wildlife species to the treatment

areas, and the implementation of the SPRs and Mitigation Measures it is likely that this project will result in a less than significant impact on all wildlife species, except for special-status bumble bees, whose impact would remain potentially significant and unavoidable due to the difficulty in detecting overwintering and nesting bumble bees as addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, page 171).

PSA Addendum – Impact BIO-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 PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape; therefore, the potential impact on special-status wildlife is also less than significant, except for special status bumble bees, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-3

Initial and maintenance treatments include mechanical, manual, prescribed broadcast and pile burning treatments, as well as herbicide treatments, which have the potential to result in direct or indirect adverse effects to sensitive habitats, including designated sensitive natural communities and oak woodlands. The potential for treatment activities to result in adverse effects to sensitive habitats was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 187-192). The potential for adverse effects to sensitive habitats is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and level of disturbance as a result of treatment activities are consistent with those analyzed in the PEIR. The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape; therefore, the potential impact on sensitive habitats is also the same, as described above.

According to the PEIR table 3.6-3 (Vegetation and Habitat Types within the Treatable Landscape for the Central California Coast Ecological Section), the project boundary may include California Wildlife Habitat Relationship (CWHR) classifications including Douglas-fir forest, coastal oak woodland, close-cone pine-cypress, Redwood, coastal scrub, mixed chaparral, annual and perennial grassland, montane hardwood, and tanoak forest. According to a data review of the San Mateo Countywide Fine Scale Vegetation Map and Landscape Database (SMC FSCVMLD), which relies on aerial imagery, lidar, and field verification, sensitive natural communities located within the treatment boundaries currently include tanoak alliance, redwood alliance, Douglas-fir-tanoak alliance, and White-root bed alliance (*Carex barbarae* herbaceous alliance), as defined in the Manual of California Vegetation (MCV) as well as chaparral and coastal scrub communities, riparian communities, and coastal oak woodlands as described in the PEIR (CalVTP Final PEIR Volume II Section 3.6. p. 28). Additionally, the California oatgrass grassland alliance was previously recorded as occurring within the project property boundary. Data collection for the SMC FSCVMLD database was collected in 2018, prior to the August 2020 CZU Fire, with subsequent reconnaissance level surveys (SPR BIO-1) performed in 2021 and 2022 post-fire. Specific impacts to sensitive natural communities will be discussed below. Furthermore, the majority of the Coastal Zone of San Mateo County has been designated as Environmentally Sensitive Habitat Area (ESHA) by the California Coastal Commission.

Sensitive Natural Communities

Coastal Oak Woodlands (Coast Live Oak Alliance) – Rarity Rank S4

According to data from the SMC FSCVMLD in combination with aerial photos and field verified vegetation points, there is approximately 61.93 acres of coastal oak woodland present in Butano State Park. The treatment area contains a total of approximately 14.73 acres of coastal oak woodland, or approximately 24

percent of the total acreage present on the project property (Attachment B, Maps 6 and 7). However, on a watershed scale and regional scale, the Coast Live Oak Alliance is locally common.

Due to the treatment areas containing coastal oak woodlands, or the Coast Live Oak Alliance, as defined in the MCV, Mitigation Measure Bio-3a applies to the proposed project (Sawyer et al., 2009 and CNPS, 2019), however, this project falls under the exception of Mitigation Measure BIO-3a due to the determination of a qualified registered professional forester (RPF) that this area would benefit from the proposed treatments. Mitigation Measure BIO-3a requires the following: the fire return interval for the specific natural community type or alliance must be determined, treatments must be designed to restore the natural fire regime and return vegetation composition and structure to their natural condition, avoid creating fuel breaks in sensitive natural communities with rarity ranks S1 and S2 where feasible, and more than 20% of the native vegetation relative cover from a stand of sensitive natural communities with rarity Rank S3 or in oak woodlands will not be removed by fuel breaks. The exception to the mitigation states that it is acceptable only in cases where it is determined by an RPF or botanist that the sensitive natural community or oak woodland would benefit from the treatment in the occupied habitat area and it shall be demonstrated in the PSA that the treatment will be beneficial with substantial evidence that habitat function is expected to improve, as outlined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 151 and 152).

Although the CZU Fire burned through a significant portion of the project and property boundary, the majority of the coastal oak woodlands throughout the project area remained unburned, near the lower elevation portions of the park. The proposed treatments will occur within coastal oak woodlands that are outside their natural fire regime, defined as medium interval or approximately 30-100+ years (Sugihara et al., 2006 and CNPS, 2019). Furthermore, based on field surveys and verification there are significant locations throughout the park where the absence of fire over the last 100 years is leading to a conversion from coastal oak woodland to other plant community compositions, specifically Douglas-fir dominated. This process is occurring coastal oak woodlands throughout that park irrespective of whether or not they were affected by the CZU Fire. In areas where the fire did impact coastal oak woodlands, the fire burned at such a low intensity that it killed but did not consume understory vegetation. Additionally, as Douglas-firs age, the species develops a thick, corky bark insulating sensitive cambial tissue to low intensity fire. The CZU Fire burned at such a low intensity, primarily in the north facing slopes of the park, that the majority of Douglas-fir trees have survived following fire. This is in contrast to portions of the park that experienced moderate to high intensity fire, resulting in significant mortality of Douglas-fir trees. Furthermore, studies have shown that encroachment pressure by Douglas-firs can limit hardwood resilience to fire and that mortality of hardwoods increases with proximity to Douglas-firs during a fire event (Cocking et al., 2012). Prescribed broadcast burning has the potential to restore the natural fire regime within this plant community while minimizing impacts to hardwoods, however, prescribed burning is unlikely to effectively remove moderate-sized Douglas-fir trees. Manual and mechanical treatments will not immediately restore the natural fire regime, however, these treatments will mimic the characteristics and desired effects of fire. Primarily, this will be accomplished through understory mastication as well as select removal of mid-range diameter (up to 36 inches DBH) Douglas-fir trees. These treatments will promote heterogeneity, resiliency, and health in the residual stand by creating increased access of sunlight and other resources for the forest floor and subsequent increase in understory diversity.

Douglas-fir – Tanoak Forest and Woodland Alliance – Rarity Rank S3

According to data from SMC FSCVMLD in combination with aerial photos and field verified points, there is approximately 603.4 acres of Douglas-fir – tanoak forest and woodland alliance within the treatment area. Large portions of the park containing this alliance burned in the CZU Fire, however, the fire primarily burned at a low intensity, backing down hill and burning but not consuming understory vegetation. According to

the MCV the Douglas-fir – tanoak alliance maintains a state rarity rank of S3 and a global rarity rank of G3, although within Butano State Park and the surrounding Santa Cruz Mountains, this alliance is relatively common. The Douglas-fir – tanoak alliance is listed as having a short to medium fire return interval, with frequent fires leading to a conversion to hardwood stands (CNPS, 2019).

The proposed project would promote the restoration of this sensitive natural community by removing dead and dying trees that were not consumed by the CZU Fire, dense understory vegetation, and live Douglas-fir trees up to 36 inches DBH to decrease competition for resources, promote understory regeneration, and increase the health and vigor of remaining live trees. As the western United States heads into an uncertain climatic regime, characterized by prolonged droughts and subsequent flood years, native trees along the central coast of California are experiencing significant drought stress. Studies have shown that thinning of Douglas-fir trees can lower overall water stress within a given area and promote increased growth of retained trees (Aussence and Granier, 1988).

The desired conditions following treatment would be reestablishment of the existing vegetation communities at densities that will promote long term health and resiliency in the face of changing climatic regimes. Furthermore, impacts to the dominant overstory stand will be minimal. Within fuel break designated treatment areas a minimum 80% native coverage of characteristic plants will be maintained and in ecological restoration treatment areas project design will ensure the maintenance of dominant, characteristics species as well. The impact on Douglas-fir – tanoak forest and woodland is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Redwood Forest and Woodland Alliance – Rarity Rank S3.2
According to data from SMC FSCVMLD in combination with aerial photos and field verified points, there is approximately 1099.25 acres of Redwood forest and woodland alliance within the treatment area. As is prevalent with many plant communities throughout the park, large portions of this association experienced low to moderate severity fire during the CZU Fire, primarily backing downhill and killing, but not consuming understory vegetation. Due to the treatment area containing the Redwood forest and woodland alliance, Mitigation Measure BIO-3a would apply to the proposed project, however, this project falls under the exception of Mitigation Measure BIO-3a due to the determination of a qualified registered professional forester (RPF) that this area would benefit from the proposed treatments (Sawyer et al., 2009 and CNPS, 2019). The exception to the mitigation is described above in the Coast Oak Woodland discussion.

The proposed treatments will occur in the redwood forest type that is defined to have a variable fire return interval (FRI) that depends on site conditions and has an average of approximately 50 years in redwood forests similar to those within Big Basin Redwoods State Park (Sugihara et al., 2006, CNPS, 2019, and Jones and Russell, 2015). Notably, other redwood forests located in the Santa Cruz Mountains have been estimated to have shorter average FRIs, with some point samples as low as 12 years, which may indicate an urgency for initial and maintenance treatments due to the potential for more frequent fires in coast redwood forests (Stephens & Fry, 2005). Typically, FRI of redwood stands will decrease (become shorter) with proximity to coastal grasslands and oak woodlands that were frequently burned by indigenous people prior to European influence (Greenlee, 1983). Additionally, in similar stand conditions located in Big Basin Redwoods State Park, coast redwood stands that have been treated with prescribed fire as recently as 2015experienced high

intensity fire during the 2020 CZU Fire, further justifying the need for urgency for initial and maintenance treatments.

Redwood forests can be at a disadvantage if they experience too much or too little fire frequency or intensity (Thornburgh et al., 2000). Studies have shown that thinning treatments in second growth redwood forests exhibit an increase in growth up to approximately four times than un-thinned or treated areas, developing old growth characteristics more rapidly (Thornburgh, et al., 2000). The development of old growth characteristics, such as stimulated branch growth and canopy complexity, as a result of thinning treatments may increase habitat quality and quantity for species that rely on old growth characteristics, including marbled murrelets (Keyes, 2011). In a case study regarding the coast redwood forest response to low to moderate severity prescribed burns, it was suggested that follow-up mechanical thinning may be necessary to achieve restoration objectives, including reducing encroachment from Douglas-fir, due to mortality of younger cohorts in the understory (Engber et al., 2016). Similarly, studies utilizing local forest inventory and the Forest Vegetation Simulator in the Santa Cruz Mountains have suggested a carbon benefit to most ecologically restorative treatments that focus on an understory thinning up to 12 inches in diameter (Forest Health in Santa Cruz and San Mateo County – A Collaborative Approach, A CAL FIRE Forest Health Grant - Carbon Analysis 2019)

As described previously, the CZU Fire burned at such a low severity throughout much of the coast redwood dominated portions of Butano State Park that much of the understory was killed, however, the biomass was not consumed. In the subsequent years following the CZU Fire, significant blow down has occurred following wind events and impacting fire-weakened trees throughout the park. Furthermore, following fire, understory species such as *Ceanothus thyrsiflorus*, commonly referred to as blue blossom, has capitalized on the conditions presented post-fire and have colonized much of the understory along the ridgetops of the park. Similar conditions existed in redwood forests following the 2009 Lockheed Fire that occurred in Davenport, California, south of the project area. The Lockheed Fire burned with predominately low to moderate severities, with pockets of high severity and canopy fires (Lazzeri-Aerts and Russell, 2014). Following the Lockheed Fire, studies determined that coast redwoods exhibited the highest amount of regeneration by seed, basal sprout density, and regenerated canopy on surviving trees than other native species, indicating that redwoods are highly adaptive to fire and disturbance (Lazzeri-Aerts and Russell, 2014). Although anecdotal, the portion of the CZU Fire that burned over the footprint of the 2008 Lockheed Fire burned at a higher intensity than surrounding areas. The buildup of fuels in the understory, including regenerated vegetation and downed 1,000-hour fuels[7] from delayed tree mortality, following the Lockheed Fire likely contributed to the increase in fire severity during the CZU Fire. Therefore, implementing initial and maintenance treatments over a 10-year period within the Butano State Park property will be beneficial for the redwood forest community and improve habitat quality by maintaining fuel reductions in the understory, including reducing ladder fuels, to potentially minimize the severity of a future wildfire that occurs before the natural fire return interval.

Although the natural fire regime will be restored through application of prescribed fire, the natural fire regime will not be restored through manual, mechanical, or herbicide treatments, however, characteristics of fire, predominantly regenerative action following vegetation treatments and ladder fuel alteration, will be conducted through treatment of understory vegetation up to 16 inches DBH, with a focus on dead, dying, diseased, and overly dense trees and shrubs. Furthermore, impacts to the residual dominant overstory stand will be minimal, where approximately 80% of native vegetation cover will be maintained. In treatment areas

[7] Fuel time-lag categories loosely refer to the time it takes a given fuel particle to reach 2/3 equilibrium moisture content with surrounding atmosphere (Biswell, 1989). One thousand-hour fuels refer to dead fuels consisting of roundwood 3-8 inches in diameter.

where multiple age classes are represented, the proposed treatments will promote heterogeneity, resiliency, and health in the residual stand by creating different intensities of sunlight through the canopy to the forest floor adding to a mosaic diversity in the understory.

Tanoak forest Alliance – Rarity Rank S3.2
According to data from SMC FSCVMLD in combination with aerial photos and field verified points, there is approximately 46.95 acres of the Tanoak Forest and Woodland Alliance within the project area. According to the MCV, the Tanoak Forest and Woodland Alliance is characterized by a dominance in the overstory of tanoak (50-60%) with an open shrub layer and relatively sparse herbaceous layer (CNPS, 2019). Furthermore, the association is typified by a medium fire return interval, with top kill of tanoaks prevalent in even low-intensity surface fires and the ability of the species to sprout vigorously following fire or cutting. The MCV lists the tanoak forest alliance with a rarity rank of 3.2, however, within the Santa Cruz Mountains the tanoak forest alliance is relatively abundant. Following heavy logging pressure in the 19th and early 20th centuries, previously redwood dominated stands converted to more tanoak dominated when harvestable redwoods were removed.

The majority of this plant community is located in the northeastern portion of the park, north of Butano Fire Road/South Butano Truck Trail. This location was heavily logged prior to acquisition by the State of California and has remnant skid trails from previously land us history. Additionally, this area experienced variable intensity wildfire during the CZU Fire, leaving behind a high accumulation of dead, dying, and irreversibly damaged vegetation. For this project, only prescribed broadcast burning is proposed in locations where the tanoak alliance is likely to occur. The proposed project will facilitate restoration of this sensitive natural community by removing dead and dying trees and dead and dying understory that was not consumed during the CZU Fire. This will increase the health and vigor of remaining live trees and other vegetation within the treatment area and improve conditions for regeneration of this alliance. The desired condition following treatment would be reestablishment of the existing vegetation community at historical densities and appropriate seral-stage communities within the treatment area.

The impact on tanoak forest and woodland is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

White-root beds (Carex barbarae Herbaceous Alliance) – *Rarity Rank S2?*
According to data from SMC FSCVMLD there are approximately 4.58 acres within the treatment areas delineated as Vancouverian freshwater wet meadow/marsh. Subsequent botanical surveys provided by California State Parks Senior Environmental Scientist (Specialist)/Botanist, Tim Hyland, identified these areas as primarily dominated by the white-root bed alliance (*C. barbarae* herbaceous alliance). This community falls within a wetland habitat as described below in Impact BIO-4 and will rely upon the same Mitigation Measures and SPRs described below, primarily SPR HYD-4 and MM BIO-4. Mechanized treatments will not occur within this plant community. Furthermore, as recommended by Tim Hyland, manual treatments would mandate the felling of any trees away from the meadow to eliminate possible impacts (Attachment F). Furthermore, as described in Attachment F, this plant community was managed by indigenous peoples through the use of prescribed fire to minimize encroachment of woody species to facilitate expansion of the species assemblage. For this reason, prescribed fire treatments proposed for this project will help restore the natural fire regime for this plant community.

The impact on the white-root bed alliance is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and MMs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than was covered in the PEIR.

Riparian Habitat

According to data from SMC FSCVMLD in combination with aerial photos and field verified points, there is approximately 14.44 acres of riparian habitat within the project area. Within the riparian designated habitats there are components of arroyo willow alliance (rarity rank S4) and shining willow grove alliance (rarity rank S3.2). Riparian habitat is primarily located along Little Butano Creek as well as adjacent to class III watercourses throughout the project area, generally in areas that were not affected by the CZU Fire. Pursuant to SPR HYD-4, all WLPZs will be identified and flagged with appropriate buffer boundaries, and mechanized equipment will not operate within any buffers surrounding watercourses, unless operating on existing roads or when crossing watercourses, and tires or tracks must remain dry. Although mechanized treatments are not expected to occur in any riparian designated habitat areas, hand treatments and prescribed broadcast burning will occur within riparian habitats and WLPZ designated areas. Pursuant to SPR HYD-4, no burn piles or fire ignitions will occur within WLPZ designated areas, however, low intensity backing fires will be allowed to spread into WLPZs. In several locations, hand treatments are expected to occur within WLPZs designated areas to establish containment lines for prescribed fire operations. Within these locations, SPR HYD-4 will also be applied and any WLPZs will be kept free of slash and any exposed mineral soil will be stabilized to the extent necessary to prevent erosion. Furthermore, all measures described in Impact BIO-4 (below) will be applied as well.

The impact on riparian habitats is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Coastal Scrub and Mixed Chaparral

According to data from SMC FSCVMLD in combination with aerial photos and field verified points, there is approximately 247.54 acres of coastal scrub or mixed chaparral habitat throughout the treatment area. Coastal scrub habitat is primarily located towards the lower elevation portions of the park, adjacent to Cloverdale Road and Butano Fire Road/South Butano Truck trail. The coastal scrub habitat is primarily composed of the Coyote brush alliance (rarity rank S5), salal – California blackberry alliance (rarity rank S4), poison oak alliance (coyote brush association), and coffee berry – coyote brush/bee plant association. Mixed chaparral habitat is primarily located along the ridgetop and higher elevation portions of the park. These locations primarily experienced high severity fire during the CZU Fire. Additionally, these ridgetop locations throughout the property were previously dominated by knobcone pines (knobcone pine alliance), which experienced high mortality following the CZU Fire. Based upon data from SMC FSCVMLD, prior to the 2020 CZU fire, the project property boundary previously contained 39.86 acres of knobcone pine alliance. It can be assumed that for many years manzanita will be the dominant vegetation in these locations as knobcone pines more slowly reestablish, resulting in a seral-stage chaparral community. The majority of the mixed chaparral designated areas throughout the property consist of the glossy leaf manzanita – golden chinquapin alliance (rarity rank S2) and brittle leaf – wooly leaf manzanita alliance (rarity rank S3).

Pursuant to SPR BIO-5, under ecological restoration treatment types outside of the Coastal Zone, complete removal of chaparral and coastal sage scrub vegetation types will not occur, ecological restoration treatments will not occur in vegetation types within their natural fire regime, and a minimum of 35% relative cover of existing shrubs and associated native vegetation will be retained in a mosaic pattern or shrub canopies will be thinned by no more than 20% from the baseline densities. Ecological restoration treatments that occur within chaparral dominated habitats will only occur following assessments of the natural regeneration following the CZU Fire, and determination of the natural fire return interval of the alliances present. Treatments will only occur when it is determined with substantial evidence that habitat function would be improved. Furthermore, as the project is sited within the Coastal Zone, treatments will not result in conversion to another vegetation alliance and will not result in complete removal of the mature shrub layer.

The impact on chaparral and coastal scrub vegetation types is within the scope of the PEIR because the affected sensitive natural community was covered in the PEIR, and the proposed treatment and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing vegetation communities or promoting historic densities, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

California Annual and Perennial Grassland

According to data from SMC FSCVMLD in combination with aerial photos and field verified points, there are approximately 32.48 acres of California annual and perennial grasslands in the treatment area. Previous records indicate the presence of the California oatgrass grassland alliance. However, according to botanical surveys performed in June and July of 2022 by California State Parks Senior Environmental Scientist/Botanist, Tim Hyland, California oatgrass grassland alliance (state rarity rank S3) was not detected within the treatment area. The California oatgrass grassland alliance is typically found on coastal bluffs, headlands, terraces, slopes, balds and ridgetops. Within San Mateo County and throughout California, coastal prairies and bald hills were traditionally maintained by indigenous peoples through burning during the late summer or fall months. Repeated burning of grassland and coastal scrub habitats increased the cover of fire adapted species and promoted grassland and prairie vegetation types. With the absence of fire or a fire surrogate (e.g., grazing), shrubs and other fire-intolerant woody species will colonize previously open landscapes. According to the MCV, the California oatgrass grassland alliance has a short to medium fire return interval (5 to 30 years), with fires typically occurring in late summer or early fall.

California State Parks in the Santa Cruz district (Santa Cruz and San Mateo Counties) has a decades long history of maintaining coastal grasslands throughout the two counties with low-intensity prescribed fire, typically occurring the late summer or early fall, following slight early-season precipitation. Within similar plant communities in Wilder Ranch State Park (Santa Cruz County) and Año Nuevo State Park (southern San Mateo County) and average FRI of two years is utilized to prevent encroachment of coastal scrub species, most notably coyote brush as well as other encroaching woody species including coast live oak and Douglas-fir.

Prescribed fires in any plant community are highly dependent upon climatic factors, which dictate the efficacy of a fire as well as the ability of fire to carry through fuels. For this reason, there is no guarantee that the natural fire regime of this alliance will be immediately restored through this treatment. Additionally, manual and mechanical treatments will not restore the natural fire regime of this community, however, they will mimic the effects of fire. This will be accomplished by a reduction in density of encroaching woody species through mechanical mastication or hand removal. However, manual, mechanical, and herbicide applications have the potential to cause adverse impacts to the California oatgrass grassland alliance through the crushing of vegetation, soil disturbance, or damage through inadvertent direct application of herbicide or

through herbicide drift. Pursuant to SPR BIO-3, site-specific surveys will be implemented to map the limits of the California oatgrass grassland alliance. Any identified habitat will be mapped and avoided for manual, mechanical, or herbicide treatments.

Based on the treatment prescription, determination of qualified RPFs and botanists, survey protocol, and pre-operational meetings, and the implementation of applicable SPRs and mitigation measures, it is likely that any impact to the California oatgrass grassland alliance would be less than significant.

Coastal Zone

Due to the project partially occurring within the coastal zone (Attachment B, Map 4), SPR BIO-8 would apply which requires consultation with the California Coastal Commission (CCC). Efforts have been made between the CCC, San Mateo Resource Conservation District, California State Parks, the County of San Mateo and other similar entities to develop a Public Works Plan (PWP), which establishes a set of standards for CalVTP projects occurring within the coastal zone of San Mateo County. The DRAFT Butano State Park PSA was sent to the CCC on August 10, 2022 date for review. Additionally, on April 28, 2022 a DRAFT set of treatment prescriptions were sent to the CCC staff and on April 29, 2022 the CCC staff accompanied the San Mateo RCD and California State Parks to the project site to discuss project scope, treatment prescriptions, and sensitive resources. A Coastal Vegetation Treatment Standards (CVTS) document has been filled out for this project and was submitted to the CCC on August 10, 2022 with the PSA (Attachment D). As mentioned previously, within San Mateo County a significant portion of the Coastal Zone has been identified as ESHA by the CCC. The basis of this project is to conduct ecologically restorative treatments that promote the persistence and resiliency of the various sensitive natural habitats within the project area through a myriad of protection, conservation, and avoidance measures.

The vegetation removal hierarchy, as outlined in the attached Coastal Vegetation Treatment Standards document, is as follows: (1) thinning and removal of dead, dying, and diseased foliage (except select snags which will be retained as wildlife shelter, dens, etc.); (2) removal of invasive species; and (3) removal of native species that are not listed as endangered, threatened, rare, or otherwise especially valuable, with the end goal of having appropriate species composition in the plant community with a mix of vegetation age, height, and density (Attachment D). The treatment activities will reduce potential ignition sources, improve ecosystem health and vigor, and promote a more resilient forest.

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

Pests, Disease, and Invasive Species

When working in riparian habitats, oak woodlands, or other sensitive natural communities, SPRs BIO-6 and BIO-9 will be implemented to prevent the spread of invasive plants, noxious weeds, invasive wildlife, and plant pathogens. Common invasive plants and plant pathogens for Butano State Park are discussed below.

Sudden Oak Death (SOD) – Phytophthora ramorum

The pathogen, *Phytophthora ramorum*, often referred to as Sudden Oak Death (SOD) is a water mold pathogen that was first detected in the San Francisco Bay Are in the 1990s. The pathogen is prevalent throughout coastal California and Oregon, and targets susceptible species including tanoak (*Notholithocarpus* densiflorus), coast live oak (*Quercus agrifolia*), California black oak (*Quercus kelloggii*), Shreve oak (*Quercus parvula* var. *shrevei*), canyon live oak (*Quercus chrysolepis*), as well as juvenile madrone (*Arbutus menziesii*). Additionally, the pathogen is known to utilize host species such as California bay laurel (*Umbellularia californica*), coast redwood (*Sequoia sempervirens*), and Douglas-fir (*Pseudotsuga menziesii*), almost all of which are prevalent throughout the treatment area. According to the UC Berkeley Forest

Pathology and Mycology Lab SODmap Project (UC Berkeley, 2021)[8], as of 2021, no laboratory verified detections of *P. ramorum* have been identified in Butano State Park, however, presence of the pathogen within the park will be assumed.

In addition to the standard project requirements identified within project activities and treatment prescriptions, to avoid the spread of *P. ramorum*, all hand equipment, including boots, will be sanitized and all heavy equipment hosed off prior to operations in areas where the spread of *P. ramorum* is possible. The California Oak Mortality Task Force website contains additional information regarding treatment and disposal measures for plants affected with *P. ramorum*. See attached link for additional information and to monitor changes in SOD treatment recommendations: https://www.suddenoakdeath.org/.

French broom (Genista monspessulana)
Due to past land uses within the park including logging, grazing, and homesteading, French broom and other non-native species have been introduced within the Park's boundaries. French broom is a problematic invasive species due to its ignitability, ability to carry fire into tree canopies, shading out seedlings, and replacing the native plants and forage species. This species has a large seed bank and re-sprouts readily from the root after cutting, freezing, and fire (California Invasive Plant Council, 2022). Cal-IPC recommends pulling French broom to remove the entire plant including its roots to eliminate re-sprouting or spraying with herbicides. The removal of this species is a priority due to its increased fire hazard and adverse impacts to habitat and aesthetics. Additional information about French broom control and treatments are located on the Cal-IPC website. See the attached link for additional information and to monitor changes in French broom treatment recommendations: https://www.cal-ipc.org/plants/profile/genista-monspessulana-profile/ and https://wric.ucdavis.edu/information/natural%20areas/wr_G/Genista.pdf

Erect veldtgrass (Ehrharta erecta)
Erect veldtgrass is an exotic, invasive perennial grass prevalent along coastal California as well as interior portions of the state. Lower elevation grassland and shrubland habitats within Butano State Park are dominated by non-native invasive grasses, specifically the hillsides along Cloverdale Road. *Ehrharta erecta* is commonly found within recently disturbed locations and is known for outcompeting native grass and herb species. Additionally, the dense thatch/litter layer produced by *E. erecta* can inhibit native plant growth following establishment of the species (California Invasive Plant Council, 2022). According to *Weed Control in Natural Areas in the Western United States*, published by UC Davis, the most effective non-chemical control of *E. erecta* is hand pulling, however all buried portions of the plant must be removed in order to prevent resprouting, and soil disturbance form hand pulling may stimulate germination of seeds (California Invasive Plant Council, 2022). Utilizing a 2% solution of glyphosate in the early Spring is recommended for chemical removal of the plant.

Pampas Grass (Cortaderia jubata)
Pampas Grass (*C. jubata*) is a large perennial grass prevalent along the coast and coast ranges of California. *Cortaderia jubata* favors recently disturbed sites with bare soil including roadsides, dunes, and coastal bluffs. The species is quick to establish with bare soil but poorly competes with established grasses and herbs (California Invasive Plant Council, 2022). Non-chemical methods of removal include hand pulling of seedlings as well as removal of mature plants utilizing hand tools such as pulaskis, pick-mattocks, and shovels. Care needs to be taken to remove the entirety of the root crown to prevent resprouting, as well as disposal of mature plants in locations where they are not capable of resprouting. Chemical methods of

[8] UC Berkeley Forest Pathology and Mycology Lab - https://nature.berkeley.edu/matteolab/?page_id=755

removal include spot treatments of glyphosate and/or imazapyr in low concentrations during the late Summer or Fall.

Conclusion

Based on the implementation of the applicable SPRs and Mitigation Measures it is likely that this project will result in a less than significant impact on all sensitive natural communities and will most likely improve their current condition.

PSA Addendum – Impact BIO-3

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape; therefore, the potential impact on special-status wildlife is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact BIO-4

Manual and mechanical treatments during initial and maintenance treatments could have adverse effects on state or federally protected wetlands, as well as wetlands defined in the Coastal Act Section 30121 or the California Code of Regulations Title 14 (14 CCR), by increasing runoff and potentially discharging sediment to protected waters. Furthermore, herbicide application could result in inadvertent contamination of designated wetlands as well. Additionally prescribed broadcast burning could result in direct removal of wetland vegetation that could adversely modify wetland functions and reduce wetland values. The potential for treatment activities to result in adverse effects to state or federally protected wetlands was examined in the PEIR (CalVTP Final PEIR Volume Section 3.6, pages 191 – 192). The majority of the aquatic habitat in the vicinity of the treatment area, including wetlands that could be state or federally protected has been excluded from the treatment area. Wetlands that do fall within the treatment areas will be identified via SPR BIO-1 and protected appropriately via SPR HYD-4. However, through the course of field and data verification per SPR BIO-1, there were two locations identified as Vancouverian Freshwater Wet Meadow and Marsh Group, via the SMC FSCVMLD. Since these locations fall within prescribed burn plot boundaries, where wetlands cannot be avoided, Mitigation Measure BIO-4 would be applied, which dictates the prescribed burning can be implemented in wetland habitats if an appropriate buffer is demarcated around the wetland and it is deemed by a qualified RPF or biologist that 1) no special-status species are present, 2) the wetland habitat function will be maintained, 3) the prescribed burn operation would occur within the normal fire return interval for the wetland vegetation types present, 4) fire containment lines and pile burning are not implemented within the buffer, and 5) that no fire ignition occur within the wetland buffer. In addition to SPRs BIO-1 and HYD-4, SPRS BIO-2, GEO-1, GEO-3, GEO-4, GEO-5, and GEO-7 will be applied.

The potential for treatment activities to result in adverse effects on state-protected or federally protected wetlands was examined in the PEIR. The impact on wetlands is within the scope of the PEIR because the treatment activities and levels of disturbance are consistent with those analyzed in the PEIR. Based on the implementation of the applicable SPR's and Mitigation Measure, this impact would remain less than significant.

PSA Addendum – Impact BIO-4

The inclusion of land in the proposed project treatment area that are outside of the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape. Therefore, the potential impact on wetlands is also less than significant, as

described above. This determination is consistent with the PEIR and would not constitute a substantially more significant impact than what was covered in the PEIR.

Impact BIO-5

Initial and maintenance treatments include the use of manual, mechanical, and prescribed fire treatments that could result in direct or indirect adverse effects to wildlife movement corridors and nurseries because suitable habitat is present within the treatment area. The potential for treatment activities to result in adverse effects to wildlife movement corridors and nurseries was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6, pages 193 – 197). The potential for adverse effects to wildlife movement corridors and nurseries is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and level of disturbance as a result of the treatment activities are consistent with those analyzed in the PEIR.

The proposed treatment areas may contain essential connectivity areas for some ungulate species and mountain lions, as well as habitat for breeding sites or cover. The project proposes the use of mechanical treatment outside of the WLPZ and will comply with overstory cover requirements in riparian areas (SPR BIO-4). Even with implementation of the aforementioned SPRs, important nursery sites could be removed, degraded, or disturbed by treatment activities including prescribed broadcast burning and removal of mid-range diameter Douglas-fir trees. For this reason, Mitigation Measure BIO-5 will be implemented to retain and avoid nursery habitat through the establishment of buffers when necessary. Based on the implementation of SPRs and the MM, it is likely that any impact to wildlife movement corridors and nurseries would be less than significant.

PSA Addendum – Impact BIO-5

The inclusion of land in the proposed project treatment area that are outside of the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape. Therefore, the potential impact to wildlife movement corridors and nursery sites is essentially the same as described above. SPRs applicable to this proposed project impact include SPR BIO-1, BIO-4, BIO-5, HYD-1, and HYD-4.

Impact BIO-6

Initial and maintenance treatments including the use of manual, mechanical, and prescribed fire treatment types could result in direct or indirect adverse effects to the habitat or abundance of common nesting wildlife, including nesting birds and bats, because suitable habitat is present within the treatment area. The potential for treatment activities to result in adverse effects to habitat and abundance of wildlife was addressed in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, pages 197-199). The potential for adverse effects to common wildlife, including nesting birds and bats, is within the scope of the activities and impacts addressed in the PEIR because the treatment activities and level of disturbance are consistent with those analyzed in the PEIR. The implementation of SPRs BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, and BIO-12 will reduce the risk of this project resulting in adverse effects to habitat and the abundance of common wildlife.

Nesting bird and bat roost surveys will be required from February 1st to August 31st and shall be conducted within 7 days of any manual or mechanical operations in treatment areas by San Mateo RCD, California State Parks, or their supervised designee to determine if nesting activity is occurring. If no active bird nests are observed during focused surveys, then additional measures will not be required. If active nests of common birds or raptors are observed during focused surveys, feasible impact avoidance strategies will be implemented to avoid disturbance to the nest, as described in SPR BIO-12. Feasible impact avoidance strategies include establishing appropriate buffers, modifying treatments to avoid disturbance, and deferring treatment until the nest is no longer active as determined by a qualified RPF or biologist. Buffers will be

based upon individual species life history. For non-raptors, buffers will typically be between 50-300 feet and 500 feet or greater for raptors. Based on the survey protocol and the implementation of applicable SPR's, it is likely that any impact to the loss of habitat or abundance of wildlife, including nesting birds, would be less than significant.

PSA Addendum – Impact BIO-6 - The inclusion of lands in the proposed project treatment area that are outside of the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area, general habitat characteristics are essentially the same within and outside the treatable landscape. Therefore, the potential impact on common wildlife, including nesting birds, is also less than significant, as described above.

Impact BIO-7

The potential for initial and maintenance treatment activities to result in conflict with local policies or ordinances was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.6.3, page 199). The potential for the proposed project to conflict with local policies or ordinances is within the scope of the activities and impacts addressed in the PEIR because the treatment projects implemented under the CalVTP are required to comply with any applicable county, city, or other local policies, ordinances, and permitting procedures (SPR AD-3) and are consistent with those analyzed in the PEIR. The County of San Mateo was engaged in the development of the PWP for CalVTP projects occurring in the Coastal Zone of San Mateo County. The County of San Mateo was contacted during the planning phase of this project on September 2, 2022 to review this PSA and ensure compliance with applicable local ordinances and policies. Due to the project design, treatment prescription, and parcel zoning (PAD/CD and RM), the proposed project will not conflict, or provides appropriate mitigations, with regard to applicable local policies or ordinances as a result of the treatment activities. Parcel zoning was confirmed through the San Mateo County Planning and Building Map Viewer.[9] Therefore, no impact is expected to occur.

PSA Addendum – Impact BIO-7

The inclusion of lands in the proposed project treatment area that are outside the CalVTP treatable landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the treatment area the local policies and ordinances that apply are the same within and outside the treatable landscape. Therefore, no impact is expected to occur, as described above.

Impact BIO-8

The proposed project treatments are located outside of any habitat conservation plans (HCP) or natural community conservation plans (NCCP). Therefore, this project would not conflict with any HCP's or NCCP's and no impact is expected to occur.

New Biological Resource Impacts

The proposed project treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.6.1 and 3.6.2).

PSA Addendum – New Biological Resource Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the treatment area, the existing environmental and regulatory conditions

[9] County of San Mateo Planning and Building Map Viewer: https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning_sql/viewers/HTML52110/virtualdirectory/Resources/Config/Default

pertinent to biological resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the PEIR. No changed circumstances are present, and the inclusion of areas outside the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to biological resources would occur.

3.6 EC-Geology, Soils, Paleontology, and Mineral Resources

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	LTS	Impact GEO-1, pp. 3.7-26 – 3.7-29	Yes	GEO-1 – GEO-8 HYD-4 AD-3 AQ-3 AQ-4	NA	LTS	No	Yes
Impact GEO-2: Increase Risk of Landslide	LTS	Impact GEO-2, pp. 3.7-29 – 3.7-30	Yes	GEO-1 – GEO-5 GEO-7 GEO-8 AQ-3	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Butano State Park is located in southern San Mateo County, in the Coast Ranges, a northwest-trending chain of mountains formed due to movement along the San Andreas Fault. The park is composed of igneous, metamorphic, and sedimentary base rocks, which are part of the Jurassic to Cretaceous aged Salinian Block. Additionally, the park is comprised of the Purisima Formation, Lower Pliocene Santa Cruz Mudstone, Upper Miocine Santa Margarita Sandstone, and mid-lower Eocene Butano Sandstone. Additional Holocene-age stream channel deposits are found along Gazos Creek, Little Butano Creek, and other tributary creeks (California State Parks, 2008).

Impact GEO-1

Initial and maintenance treatments include manual, mechanical, and prescribed burning treatments activities, which have the potential to result in vegetation removal and soil disturbance, which may result in increased rates of erosion and loss of topsoil. The potential for these treatment activities to cause substantial erosion or loss of topsoil were examined in the PEIR (CalVTP Final PEIR Volume II Section 3.7.3, pages 26-29). The potential impacts are within the scope of the PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR. Specific SPRs that apply include SPRS GEO-1 through GEO-8, HYD-4, AD-3,

AQ-3, and AQ-4, which will avoid and minimize the risk of substantial erosion and loss of topsoil. All equipment will be operating on slopes less than 40%, however may utilize slopes up to 50% or less for access routes to different treatment areas. The average slope throughout the mechanized treatment areas is approximately 20-30%. Additionally, operations will not occur while soils are saturated to avoid disturbance caused by the removal of vegetation. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact GEO-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the soil characteristics of the project area are essentially the same within and outside the treatable landscape; therefore, the potential impact related to soil erosion is also less than significant, as described above. The impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact that what was covered in the PEIR.

Impact GEO-2

Initial and maintenance treatments include manual, mechanical, and prescribed burning treatment activities in areas with steep slopes, which could decrease the stability of slopes and increase the risk of landslides. The potential for treatment activities to increase landslide risk was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.7.3, pages 29-30). The prescription for these treatments limits mechanical operations to slopes equal to or less than 40%, however slopes up to 50% may be utilized for access routes. The average slope throughout the mechanized treatment areas is approximately 20-30%. Additionally, equipment will not operate on saturated soils to avoid disturbances caused by the removal of vegetation. The implementation of applicable SPRs include SPRs GEO-1 through GEO-5, GEO-7, GEO-8, and AQ-3 to avoid or minimize the risk of landslide resulting from these treatment activities. The potential impacts associated with these treatment activities are within the scope of the PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR. Therefore, this impact would remain less than significant.

PSA Addendum – Impact GEO-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 PEIR. 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 less than significant, as described above. The impact of the proposed project is consistent with the PEIR and would not constitute a substantially more severe significant impact that what was covered in the PEIR.

New Geology, Soils, Paleontology, and Mineral Resource Impacts

The proposed treatment is consistent with the treatment types and activities in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the PEIR (CalVTP Final PEIR Volume II Sections 3.7.1 and 3.7.2).

PSA Addendum – New Geology, Soils, Paleontology, and Mineral Resource Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to geology and soils that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion

of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to geology and soils would occur.

3.7 EC-Greenhouse Gases Emissions

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact GHG-1

Initial and maintenance treatments include the use of mechanical equipment, herbicide, and prescribed burning, which would result in greenhouse gas (GHG) emissions. Consistency of treatments under the CalVTP with applicable plans, policies, and regulations aimed at reducing GHG emissions was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.8.3). The proposed project is consistent with all applicable plans, policies, and regulations related to the purpose of reducing GHG emissions and treatment activities are consistent with those analyzed in the PEIR. Per SPR GHG-1, the project proponent will provide all necessary data required by the USFS and FRAP to fulfill AB 1504. The project impacts relating to the consistency of treatments with applicable plans, policies, and regulations will remain less than significant.

PSA Addendum – Impact GHG-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the 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 less than significant, as described above.

Impact GHG-2

Initial and maintenance treatments include the use of mechanical equipment, pile burning, and broadcast burning, which would result in GHG emissions. The potential for these treatments to generate GHG emissions were analyzed in the PEIR (CalVTP Final PEIR volume II Section 3.8.3, pages 11-17). In the long term, treatment activities are expected to have carbon sequestration benefits and are intended to reduce the risk of wildfire, which would decrease projected GHG emissions. Because the project proposes to utilize prescribed broadcast burning as a treatment activity, Mitigation Measure GHG-2 applies, which would require the project proponent to incorporate all feasible methods for reducing GHG emissions during prescribed burning operations. Furthermore, the project proposes the use of Air Curtain Burners (ACBs) to incinerate cut woody material. ACBs rely on ideal combustion efficiency, resulting in minimal releases of black carbon and an overall carbon neutral operation. The primary objective of ACBs is to reduce particulate matter, which results from burning wood waste. US Forest Service technical analyses have shown that ACBs are effective in reducing PM2.5 emissions compared to open burning (USFS, 2002). All ACB use will meet U.S. EPA standards and will comply with local permitting requirements. SPR AQ-3 would also be applied to this treatment and will contain the description of feasible GHG reduction techniques implemented per Mitigation Measure GHG-2. Based on the implementation of the applicable SPR's and Mitigation Measure GHG-2, this project would result in a reduction of GHG emissions, however, the PEIR acknowledges the uncertainties and potential for net positive emissions over time. Therefore, this impact would remain potentially significant and unavoidable, as determined in the PEIR (CalVTP Final PEIR volume II Section 3.8.3, pages 11-17).

PSA Addendum – Impact 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 PEIR. 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 potentially significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Impacts Related to GHG Emissions

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.8.1 and 3.8.2).

PSA Addendum – New Impacts Related to GHG Emissions

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

3.8 EC-Energy Resources

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact ENG-1

Initial and maintenance treatments will require the consumption of energy through the use of chainsaws, mechanical equipment, other mechanized hand tools, and transporting personnel to and from the work site. The potential for impacts to result in wasteful, inefficient, or unnecessary consumption of energy and the use of fossil fuels was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.9.3, pages 7-8). The consumption of energy during the project treatment activities is within the scope of the PEIR because the types of activities, as well as the associated equipment and duration of proposed use, are consistent with those analyzed in the PEIR. No SPRs or Mitigation Measures are applicable to this impact. Based on the nature of the proposed treatments and consistency with the scope of the PEIR, this impact remains less than significant.

PSA Addendum – Impact ENG-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the existing energy consumption is essentially the same within and outside the treatable landscape; therefore, the energy impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

New Energy Resource Impacts

The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable regulatory and environmental setting conditions developed in the PEIR (CalVTP Final PEIR Volume II Section 3.9.1 and 3.9.2).

PSA Addendum – New Energy Resource Impacts

The project proponent has also determined that the inclusion of land outside the treatable landscape in the proposed treatment area constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment activities are also consistent with those analyzed in the PEIR. No changed circumstances would lead to significant impacts not addressed in the PEIR. Therefore, no new impact to energy resources would occur that is not covered in the PEIR.

3.9 EC – Hazardous Materials, Public Health and Safety

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact HAZ-1

Initial and maintenance treatments would include the use of manual, mechanical, herbicide application, and prescribe fire treatment activities, all of which require the use of hazardous material. The potential for treatment activities to create a significant health hazard from the use of hazardous materials was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, pages 14-15). The potential impacts related to the use of fuels during treatment activities are within the scope of the activities and impacts discussed in the PEIR because the treatment types, equipment, and types of hazardous materials to be used are consistent with those analyzed in the PEIR. Any hazardous materials and emissions would result from the use of diesel fuel, chainsaw and mechanized hand tool fuel, and chainsaw bar oil; these materials will be transported and stored in appropriate containers. Prescribed fire operations may utilize drip torches, fuzees, helitorches and other commonly used forms of ignition starts for prescribed fire. Aerial ignitions may include use of a helitorch, which requires mixing of either gasoline or a gasoline/diesel mixture as well as a thickening agent. All fuel mixtures (diesel/gasoline) for hand-held ignitions will be pre-mixed off site, typically at a local work

yard and brought to the site. Drip torches and other ignition equipment will be inspected for leaks and put out of service or repaired as needed. All personnel will wear personal protective equipment (PPE) and will be properly trained in the usage of equipment. All equipment associated with the proposed project will comply with SPR HAZ-1 to ensure proper maintenance and to minimize leaks. Additionally, all mechanized tools will have spark arrestors and will be implemented to minimize the risk of potential ignitions, per SPR HAZ-2. Herbicide application will be discussed under Impact HAZ-2, below. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact HAZ-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the exposure potential and regulatory conditions are essentially the same within and outside the treatable landscape; therefore, the hazard material impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HAZ-2

Initial and maintenance treatments for this project may utilize herbicides to treat sprouting exotic, invasive vegetation in previously treated locations. The potential for these treatment activities to create a significant health hazard were evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, pages 16-18). The potential impacts related to the use of herbicides during treatment activities are within the scope of the activities and impacts analyzed in the PEIR because the application methods and herbicides used are consistent with those included in the PEIR.

As per the CalVTP, herbicide treatments will be limited to ground-based application and must comply with all Environmental Protection Agency (EPA) label directions. According to the PEIR Table 3.10-1, the herbicides proposed under the CalVTP pose low levels of toxicity to humans (CalVTP Final PEIR Volume II Section 3.10.3 Table 3.10-1, page 16-17). In addition, the proposed project treatments will comply with SPR HAZ-5 through HAZ-9, which requires the following: a Spill Prevention and Response Plan will be prepared prior to any herbicide treatment activities (SPR HAZ-5), compliance to herbicide application regulations including permitting and licensing through the San Mateo County Agricultural Commissioner's office prior to herbicide application (SPR HAZ-6), triple rinse herbicide containers and dispose of rinsed materials at an approved site (SPR HAZ-7), minimize herbicide drift into public areas through application parameters such as limitations for nozzle pressure and nozzle distance from vegetation (SPR HAZ-8), and notification of herbicide within 500 feet of public areas including posting signs on either side of herbicide treatment areas (SPR HAZ-9). Based on compliance to regulatory requirements and SPRs in addition to utilizing glow-level toxicity herbicides proposed under the PEIR, the potential for this project to result in significant health hazard from the use of herbicides is less than significant.

PSA Addendum – Impact HAZ-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 PEIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the hazardous materials impact is also less than significant, as described above.

Impact HAZ-3

Initial and maintenance treatments proposed under this project include mechanical and prescribed burning treatment activities, which have the potential to disturb soils and expose workers, the public, or the environment to hazardous material if a contaminated site is present within the project area. The potential for the treatment activities to disturb or encounter contaminated sites that could expose workers, the public, or

the environment to hazardous materials was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, page 18-19). No SPRs are applicable to this impact. As directed by Mitigation Measure HAZ-3, database searches for hazardous materials were performed utilizing the DTSC Cortese List as well as DTSC EnviroStor web search. Based upon records searches, there are no known hazardous waste sites identified within the proposed project area. Therefore, this impact is reduced to less than significant.

PSA Addendum – Impact HAZ-3

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

New Hazardous Materials, Public Health and Safety Impacts

The initial and maintenance treatments proposed for this project are consistent with the treatment types and activities analyzed in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.10.1 and 3.10.2).

PSA Addendum – New Hazardous Materials, Public Health and Safety Impacts

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

3.10 EC-Hydrology and Water Quality

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact HYD-1: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Prescribed Burning	LTS	Impact HYD-1, pp. 3.11-25 – 3.11-27	Yes	HYD-1 HYD-4 GEO-4 GEO-6 AQ-3	NA	LTS	No	Yes
Impact HYD-2: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Manual or Mechanical Treatment Activities	LTS	Impact HYD-2, pp. 3.11-27 – 3.11-29	Yes	GEO-1 – GEO-5 GEO-7 GEO-8 BIO-1 HAZ-1 HYD-1 HYD-4	NA	LTS	No	Yes
Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory	LTS	Impact HYD-3, p. 3.11-29	No	None	NA	No Impact	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	BIO-4 HYD-4 HAZ-5 HAZ-7	NA	LTS	No	Yes

Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
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	HYD-4 HYD-6 GEO-1 GEO-2 GEO-5	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

The proposed project is located within the San Francisco Bay and Central Coast hydrologic region and watersheds, as depicted in Figure 3.11-1 of the PEIR. The two major watercourses within Butano State Park include Little Butano Creek and Gazos Creek. Little Butano Creek, located within the San Francisco Bay hydrologic region, serves as a tributary to Butano Creek, an anadromous fish bearing stream that eventually, flows into the Pacific Ocean through the Pescadero Marsh Natural Preserve. Gazos Creek is located on the southern end of the park and within the Central Coast hydrologic region. Only small portions of mechanized treatments on the southern end of Olmo Fire Road are located within the Central Coast hydrologic region. The vast majority of the treatment area is located within the San Francisco Bay hydrologic region. Mechanized treatments are located outside of any WLPZ, however, mechanical and prescribed broadcast burning treatments are proposed within or adjacent to WLPZ buffers. Any WLPZ in proximity to mechanized or hand treatments will be flagged and avoided appropriately during operations. Any watercourse crossings utilized during operations will be existing and no new infrastructure will be constructed.

Impact HYD-1

Initial and maintenance treatments would include the use of prescribed fire in the form of pile and broadcast burning. Ash and debris from treatment areas has the potential to be washed out by runoff into adjacent drainages and streams. Broadcast burning implemented under the proposed project would be conducted when fuel moisture environmental conditions allow for effective understory and ladder fuel control, while reducing the risk of high severity burns. Additionally, per SPR HYD-4, no ignition points would be located within WLPZs. The potential for prescribed burning activities to cause runoff and violate water quality regulations or degrade water quality was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 25-27). This impact is within the scope of the PEIR because the use of low-intensity prescribed burns

and associated impacts to water quality are consistent with those analyzed in the PEIR. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact HYD-1- The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from prescribed burning is also less than significant, as described above. The proposed treatment activities do not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-2

Initial and maintenance treatments would include the use of manual and mechanical vegetation removal, which have the potential to result in ground disturbance and subsequent erosion and runoff. The potential for mechanical treatments to violate water quality control regulations or degraded water quality was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 27-28). Although most treatment areas utilizing manual and mechanical treatments have been designed to avoid streams and watercourses, WLPZs ranging from 50-150 feet will be established around any watercourses that are within the treatment areas, per SPR HYD-4. Potential impacts are within the scope of the activities and impacts evaluated in the PEIR because the use of equipment and associated impacts to water quality are consistent with those analyzed in the PEIR. The centerline of Class III watercourses shall be flagged prior to operations where equipment could potentially cross a Class III due to the project proximity and slope. Equipment exclusion zones of 30' for slopes less than 30% and 50' for slopes greater than 30% shall be adhered to in this proposed project. Additionally, the project proponent will implement SPRs GEO-1 through GEO-5, GEO-7, GEO-8, BIO-1, HAZ-1, HYD-1, HYD-4. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – HYD-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 PEIR. However, within the boundary of the project area, the surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from manual and mechanical treatments is also less than significant, as described above. This impact is within the scope of the PEIR because the use of heavy equipment and hand-tools to remove vegetation and associated impacts to water quality are consistent with those analyzed in the PEIR. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-3

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

Impact HYD-4

Maintenance treatments proposed for this project would include the use of herbicides to manage exotic, invasive plant growth following initial treatment activities, which can affect water quality through runoff, leaching, drift, and misapplication or spills. The potential for herbicide application activities to violate water quality control standards or waste discharge requirements, substantially degrade surface or ground water quality, or conflict with or obstruct the implementation of a water quality control plan through the ground applications of herbicides was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 29-30). Potential impacts are within the scope of the activities and impacts addressed in the PEIR because the methods of herbicide application, transportation, storage, and disposal are consistent with those analyzed in

the PEIR. Under the CalVTP, herbicide treatment activities are limited to ground-level application by hand (SPR BIO-4) and compliance to EPA labels is required. The majority of the proposed project treatment areas are located outside of any WLPZ's and SPR HYD-5 prohibits non-aquatic herbicide formulations from being applied within 50 feet of a waterbody or riparian area and prohibits application during precipitation or within 24 hours of forecasted precipitation. In addition, a Spill Prevention and Response Plan will be prepared prior to herbicide treatment activities (SPR HAZ-5) and all herbicide containers must be triple rinsed and hazardous waste materials must be disposed of at an approved site (SPR HAZ-7). Based upon compliance with EPA labels and SPR limitations, the potential for this project to result in a violation of water quality standards or waste discharge requirements, substantially degrade surface or ground water quality, or conflict with or obstruct the implementation of a water quality control plan through the ground application of herbicides is less than significant; a determination consistent with the PEIR.

PSA Addendum – Impact HYD-4

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, surface water conditions are essentially the same within and outside the treatable landscape; therefore, the water quality impact from use of herbicides is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact HYD-5

Initial and maintenance treatments proposed for this project include the use of mechanical treatments, which could result in ground disturbance. The potential for mechanical treatments to substantially alter existing drainage patterns of the project site was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 30-31). The potential impacts are within the scope of the PEIR because the use of equipment and treatment activities are consistent with those addressed in the PEIR. SPRs applicable to this treatment are HYD-4, HYD-6, GEO-1, GEO-2, and GEO-5 which limit operations during heavy precipitation, limit high ground pressure vehicles, require the installation of water breaks to drain stormwater, and require identification and protection of WLPZs, and protect existing drainage systems. With the application of these SPRs, the proposed project remains less than significant; a determination consistent with the PEIR.

PSA Addendum – Impact HYD-5

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, 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 less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Hydrology and Water Quality Impacts

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Sections 3.11.1 and 3.11.2).

PSA Addendum – New Hydrology and Water Quality Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to hydrology and water quality that are present in the areas outside the treatable landscape are

essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. 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.

3.11 EC-Land Use and Planning, Population and Housing

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact LU-1

The initial and maintenance treatments would occur on State property in Pescadero, San Mateo County, and will be implemented by a project proponent that is a state agency, thus the project will be consistent with all land management plans for the property, specifically the Butano State Park General Plan (California Department of Parks and Recreation, 2008). The potential for treatment activities to cause a significant environmental impact due to conflict with a land use plan, policy, or regulation was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.12.3, pages 13-14). The treatment types and activities are within the scope of those evaluated in the PEIR. Portions of the project lie within the Coastal Zone and would qualify as "development" under the definition presented in PRC Section 30106 and would normally require a Coastal Development Permit. However, this project will be approved under the San Mateo County Forest Health and Fire Resiliency Public Works Plan (PWP), which satisfies California Coastal Act Compliance in lieu of a Coastal Development Permit; thus, SPR AD-9 does not apply. No conflict would occur because the project proponent would adhere to SPR AD-3. Based on the implementation of SPR AD-3 and consistency with the PWP and scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact LU-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the PEIR. However, land uses in the project area are essentially the same within and outside the treatable landscape; therefore, the land use impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

Impact LU-2

The potential for initial and maintenance treatments to result in substantial population growth as a result of increases in demand for employees was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.12.3, pages 14-15). Impacts associated with short-term increases in the demand for workers during implementation of the treatments is consistent with (less than) the crew size analyzed in the PEIR for the types of treatments proposed. Prescribed burning treatment activities would require between 10 and 50 crew members, depending on the size of the burn unit. Mechanical treatments would typically be completed by crews of four and 20 staff. Herbicide treatments typically would occur with crews of two to 20 people, and manual treatments would be implemented by crews of approximately four to 20 crew members. Employing local contractors will be encouraged where feasible to minimize the risk of impacting population and housing resources. No SPRs are applicable to this impact. Based on the consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact LU-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 PEIR. However, the population and housing characteristics of the project area are essentially the same within and outside the treatable landscape; therefore, the population and housing impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

New Land Use and Planning, Population and Housing Impacts

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.12.1 and 3.12.2).

PSA Addendum – New Land Use and Planning, Population and Housing Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing conditions that are pertinent to land use and planning, population and housing that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to land use and planning, population and housing would occur.

3.12 EC-Noise

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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact NOI-1

Initial and maintenance treatments proposed for this project including manual, mechanical, and prescribed fire treatment activities will require the use of heavy, noise-generating equipment. The potential for substantial short-term increase in ambient noise levels was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, pages 9-12). Short term increases in noise from the use of heavy equipment is within the scope of the activities and impacts addressed in the PEIR because the types and number of equipment proposed, as well as the duration of use, are consistent with those analyzed in the PEIR. SPRs NOI-1 – 5 apply, as well as NOI-6, which would require notification of nearby noise-sensitive receptors such as rural residents and the Girl Scouts of Northern California – Camp Butano Creek. Additionally, SPR AD-3 applies to this project. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact NOI-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the exposure potential (i.e., lack of 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 less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact NOI-2

Initial and maintenance treatments proposed for this project will require the use of large trucks hauling heavy equipment to and from the project site, masticators, chainsaws, and other noise-generating equipment. Although the project site is located in rural San Mateo County, transportation to and from the project site would pass by residential receptors. The potential for substantial short-term increase in Single-Event Noise Levels (SENL) was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, page 12). Short-term increases in noise form the use of heavy equipment during project implementation is within the scope of the treatment activities and impacts addressed in the PEIR because the number and types of equipment proposed are consistent with those analyzed in the PEIR. Applying SPR NOI-1 restricts treatment activities to daytime hours, which San Mateo County defines as 7:00 am to 6:00 pm, Monday through Friday, or 9:00 am to 5:00 pm on Saturdays under SMC PRC Sec. 4.88.360(e). Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact NOI-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 PEIR. However, within the boundary of the project area, the exposure potential is essentially the same within and outside the treatable landscape; therefore, the noise impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Noise Impacts

The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the regulatory and environmental setting conditions addressed in the PEIR (CalVTP Final PEIR Volume II Sections 3.13.1 and 3.13.2).

PSA Addendum – New Noise Impacts

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

3.13 EC-Recreation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	LTS	Impact REC-1 pp. 3.14-6 – 3.14-7	Yes	AD-3 REC-1	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

The project area is located in Butano State Park, an approximately 4,630-acre State Park located in western San Mateo County and highly utilized for recreational use. The park contains an extensive network of trails, a visitor center, parking, staff housing, restrooms, individual and group picnic sites, individual and group campsites, and interpretive elements. Following the 2020 CZU Fire, significant portions of the park were closed for public use, however, visitor use will likely increase over the next several years.

Impact REC-1

The initial and maintenance treatments proposed for this project may result in conflicts with recreationists due to potential restricted or limited park access, degradation of views, decreased air quality, as well as traffic during treatment implementation. The potential for treatment activities to disrupt recreational activities was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.14.3, pages 6-7). The temporary disruption of recreational activities during project implementation is within the scope of activities and impacts addressed in the PEIR because the treatments and associated equipment and duration of use is consistent with those analyzed in the PEIR. Maintaining consistency with local plans, policies, and ordinances, including the Butano State Park General Plan published in 2008 (SPR AD-3) and, where feasible, posting of recreational area closure two weeks prior to commencement of treatment activities (SPR REC-1) 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 two-week notice of trail closure, however, the project proponent will provide as much advanced notice as is feasible. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact REC-1

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the availability of recreational resources within the project area is essentially the same within and outside the treatable landscape; therefore, the impact to recreation is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more sever significant impact than covered in the PEIR.

New Recreation Impacts

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.14.1 and 3.14.2).

PSA Addendum – New Recreation Impacts

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental conditions pertinent to recreation that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. 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.

3.14 EC-Transportation

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Section 3.15.2; 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

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact TRAN-1

Initial and maintenance treatments have the potential to increase vehicular traffic due to hauling equipment and crew transportation to and from the project site. The potential for a temporary increase in traffic to conflict with a program, plan, or policy addressing roadways facilities or prolonged road closures was evaluated in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, pages 9-10). No road closures would be necessary for the implementation of this project; however, Cloverdale Road will be crossed by equipment and crew vehicles during operations, which may require traffic control to reduce traffic impacts to residents in the Butano Canyon Subdivision as well as State Park visitors. The proposed treatment project would be short-term and temporary increases in traffic related to treatments are within the scope of the activities and impacts addressed in the PEIR because the treatment duration and number of vehicles is consistent with those analyzed in the PEIR. The SPRs applicable to this treatment are TRAN-1 and AD-3. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact TRAN-1

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

Impact TRAN-2

Initial and maintenance treatments proposed for this project would not require the construction or alteration of any roadways; however, the proposed treatments do include prescribed burning, which has the potential to produce smoke and affect visibility along roadways in a manner that could create transportation hazards. The potential for smoke to affect visibility along roadways during implementation of treatment activities was examined in the PEIR (CalVTP Final PEIR volume II Section 3.15.3, pages 10-11). This impact is within the scope of the PEIR because the equipment and methods used for prescribed burning are consistent with those analyzed in the PEIR. SPRs HYD-2, AD-3, and TRAN-1 are all applicable to this treatment and would prohibit the construction of new roads, maintain consistency with local plans, policies, and ordinances, and implement a Traffic Management Plan (TMP) if the treatment manager deems it necessary during vegetation treatment activities. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

PSA Addendum – Impact TRAN-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 PEIR. However, within the boundary of the project area, the existing transportation conditions (e.g., roadways and road use) present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the transportation impact is also less than significant, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than was covered in the PEIR.

Impact TRAN-3

Initial and maintenance treatments have the potential to increase vehicle miles traveled (VMT) above baseline conditions because the project area is in a remote location and would require vehicle trips to access treatment areas. The potential for net increase in VMT to occur was analyzed in the PEIR and was identified as potentially significant and unavoidable (CalVTP Final PEIR Volume II Section 3.15.3, pages 11-13). This project is expected to remain below the threshold of 110 trips per day, which is generally assumed to cause less-than-significant transportation impacts, as discussed in the PEIR and the Technical Advisory on Evaluation Transportation Impacts (OPR, 2018). The highest VMT would occur at the beginning and end of project activities and would likely occur on days where broadcast burning is likely to occur. Maximum daily VMT would consist of transportation of fire suppression equipment, hand crews, and heavy machinery to and from the project site, however, number of trips would remain below 110. Furthermore, hiring local contractors will be encouraged where feasible to reduce the amount of VMT. Temporary increases in VMT are within the scope of the activities and impacts addressed in the PEIR because the number and duration of increased vehicle trips is consistent with those analyzed in the PEIR. Additionally, Mitigation Measure AQ-1 would encourage contractors to carpool or use public transportation when feasible as outline in the PEIR. This impact would remain potentially significant and unavoidable as determined in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, page 12-13).

PSA Addendum – Impact TRAN-3

The inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the 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 potentially significant and unavoidable, as described above. This impact is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

New Transportation Impacts

The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The project proponent has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the regulatory and environmental setting conditions presented in the PEIR (CalVTP Final PEIR Volume II 3.15.1 and 3.15.2). No changed circumstances would give rise to new significant impacts not addressed in the PEIR. Therefore, no new impact related to transportation would occur that is not covered in the PEIR.

PSA Addendum – New Transportation Impacts

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

3.15 EC-Public Services, Utilities and Service Systems

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	LTS	Section 3.16.1 pp. 3.16-2 – 3.16-3; Impact UTIL-1 p. 3.16-9	Yes	None	NA	LTS	No	Yes
Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	PSU	Section 3.16.1 pp. 3.16-3 - 3.16-5; Impact UTIL-2 pp. 3.16-10 – 3.16-12	Yes	NA	None	PSU	No	Yes
Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	LTS	Section 3.16.2 pp. 3.16-6 – 3.16-7; Impact UTIL-2 p. 3.16-12	No	NA	NA	No Impact	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact UTIL-1

Initial and maintenance treatments for this project would include prescribed burning and non-shaded fuel breaks, which may require on-site water supply for fire suppression during burn activities as well as dust control during vegetation removal. If needed, water would be supplied from water trucks, water trailers, or fire engines. The potential increased demand for water was examined in the PEIR (CalVTP Final EIR Volume II Section 3.16.1, page 9). This impact is within the scope of the activities and impacts addressed in the PEIR because the size and scope of treatments are consistent with those analyzed in the PEIR. No SPRs are

applicable to this impact. Based on the consistency with the scope of the PEIR, this impact remains less than significant.

PSA Addendum – Impact UTIL-1

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

Impact UTIL-2

Initial and maintenance treatments would generate biomass as a result of vegetation removal activities within the treatment area. Biomass generated by manual and mechanical treatments will be disposed of primarily through burning on site, chipping, masticating, incineration, or lop and scatter. This impact was identified as potentially significant and unavoidable in the PEIR because biomass hauled off-site could exceed the capacity of existing infrastructure for handling biomass. For the proposed treatment, biomass may be hauled off-site; if so, any transport of biomass will follow UTIL-2.

PSA Addendum – Impact UTIL-2

The inclusion of land in the proposed treatment area that is outside of the treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the infrastructure utilized to handle biomass is the same as those within the treatable landscape; therefore, the impacts is potentially significant and unavoidable, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Impact UTIL-3

This impact does not apply to the proposed project because biomass generated from the proposed treatments will be disposed of on-site.

New Impacts to Public Services, Utilities and Service Systems

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The project proponent has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (CalVTP Final PEIR Volume II Section 3.16.1 and 3.16.2). The project proponent has also determined that the circumstances under which the proposed treatments would be undertaken are also consistent with those covered in the PEIR. No changed circumstances would give rise to new significant impacts. Therefore, no new impact related to public services, utilities, or service systems would occur.

PSA Addendum – New Impacts to Public Services, Utilities and Service Systems

The project proponent has also determined that the inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the impacts to public services, utilities, and service systems in 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 area also consistent with those covered in the PEIR. No changed circumstances are present, and the inclusion of areas outside of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to public services, utilities, and service systems would occur.

3.16 EC-Wildfire

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire	LTS	Section 3.17.1; Impact WIL-1 pp. 3.17-14 – 3.17-15	Yes	HAZ-2 HAZ-3 HAZ-4	NA	LTS	No	Yes
Impact WIL-2: Expose People or Structures to Substantial Risks Related to Post-Fire Flooding or Landslides	LTS	Section 3.17.1; Impact WIL-2 pp. 3.17-15 – 3.17-16	Yes	GEO-3 GEO-4 GEO-5 GEO-8 AQ-3	NA	LTS	No	Yes

[1]NA: not applicable; there are no SPRs and/or MMs identified in the PEIR for this impact. None: there are SPRs and/or MMs identified in the PEIR for this impact, but none are applicable to the treatment project.

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

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	☐	☐	☐

Discussion

Impact WIL-1

Initial and maintenance treatments for this project include prescribed broadcast burning, pile burning, and the use of heavy machinery during mechanical treatments, all of which have the potential to pose a risk of wildfire ignition or risk of a prescribed fire escaping its control lines. The potential increase in exposure to wildfire was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3, pages 13-14). Increased wildfire risk associated with prescribed burning and the use of heavy equipment for vegetation management is within the scope of the PEIR because the types of equipment and treatment duration of the proposed project are consistent with those analyzed in the PEIR. SPRs applicable for this project include HAZ-2, HAZ-3, and HAZ-4, which would require spark arrestors on all mechanized tools, require fire extinguishers, shovels, and an axe or Pulaski for each vehicle (pursuant to PRC Section 4428), and prohibit smoking in vegetated areas. Based on the implementation of all applicable SPRs the potential to substantially exacerbate wildfire risk and expose people to uncontrolled wildfire would be less than significant.

PSA Addendum – Impact WIL-1

The inclusion of land in the proposed treatment area that is outside of the CalVTP Treatable Landscape constitutes a change to the geographic extent analyzed in the PEIR. However, within the boundary of the project area, the wildfire risk of the project is essentially the same within and outside the treatable landscape;

therefore, the wildfire impact is also less than significant, as described above; a determination consistent with the PEIR.

Impact WIL-2

Initial and maintenance treatments proposed for this project include the use of prescribed broadcast and pile burning, often on steep slopes present throughout the treatment area. The potential for post-fire related flooding or landslides was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3, pages 14-15). The potential exposure of people or structures to post-fire landslides and flooding are within the scope of the activities and impacts covered in the PEIR because the equipment types and duration of use are consistent with those analyzed in the PEIR. SPRs AQ-3, GEO-2, GEO-3, GEO-4, GEO-5, and GEO-8 are all applicable to this project and would require the inclusion of a burn plan prior to prescribed burning activities, stabilization of disturbed soils, erosion monitoring, draining of stormwater via water breaks under certain conditions, use of strategically placed remaining vegetation or trees to act as erosion control, and evaluation of steep slopes for mechanized treatments; however, mechanized treatments are typically limited to slopes up to 40%, unless traveling from one treatment area to another in which case slopes may be up to 50%.Based on the inclusion of all applicable SPRs as well as the treatment design, the potential for this project o result in post-fire flooding or landslides would be less than significant.

PSA Addendum – Impact WIL-2

The inclusion of land in the proposed treatment area that is outside of the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the post-fire landslide risk of the project area is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also less than significant, as described above; a determination consistent with the PEIR.

New Impacts to Wildfire

The project proponent has considered the site-specific characteristics of the proposed project and determined they are consistent with the applicable regulatory and environmental conditions presented in the PEIR (CalVTP Final PEIR Volume II Sections 3.17.1 and 3.17.2).

PSA Addendum – New Impacts to Wildfire

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

4.0 Standard Project Requirements and Mitigation Measures Checklist

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 (PSA/Addendum) to the California Vegetation Treatment Program (CalVTP) Program Environmental Impact Report (PEIR) identifies potential significant adverse impacts and all feasible mitigation measures 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 PEIR.

The San Mateo Resource Conservation District Forest Health and Wildfire Resiliency Public Works Plan (PWP) is a companion to the CalVTP that provides a streamlined mechanism for Coastal Act compliance through the submittal and approval of Notice of Impending Developments (NOIDs) for individual projects. The PWP requires adherence to Coastal Vegetation Treatment Standards (CVTS) approved as part of the PWP and additional information about project design within the San Mateo County Coastal Zone. As the project proponent and lead agency to the PSA/Addendum under CEQA, California State Parks is responsible for the overall administration of this project-specific MMRP and ensuring compliance with the Coastal Act. However, as the project proponent and administrator of the PWP, SMRCD will be consulted during all aspects of project implementation and subsequent reporting and will serve as a verifying and monitoring entity for all SPRs and Mitigation Measures occurring within the Coastal Zone. Where Coastal Act requirements differ from or are more protective than the CalVTP SPRs and Mitigation Measures in the PSA, they have been integrated into the SPRs and Mitigation Measures for the project as project-specific implementation directives.

Purpose of Mitigation Monitoring and Reporting Program

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

Roles and Responsibilities

This PSA was developed for the California Department of Parks and Recreation by the San Mateo Resource Conservation District in collaboration with Auten Resource Consulting. The California Department of Parks and Recreation is the project proponent of the PSA and the lead agency of the PSA/Addendum under CEQA and is responsible for approving and submitting the PSA for inclusion under the CalVTP PEIR, the overall administration of this project specific MMRP, and for ensuring that implementation of the mitigation measures and SPRs occurs in accordance with this MMRP. As the project proponent of the PWP, the San Mateo RCD is responsible for reviewing the PSA for consistency with the PWP, developing the NOID, and all other verification and monitoring requirements covered under the PWP.

The California Department of Parks and Recreation will be required to implement treatments consistent with the PSA, CVTS, and the Mitigation Measures and SPRs in this MMRP if they are using the PWP for Coastal Act Compliance.

Reporting: The California Department of Parks and Recreation shall document and describe the compliance of project treatment work with the required SPRs and Mitigation Measures either by adapting the project-specific MMRP table below or preparing a separate post-project implementation report pursuant to the requirements of SPR AD-7.

Mitigation Monitoring and Reporting Program Table

- Applicable (Yes/No). Document whether the SPR or mitigation measure is applicable to the initial treatment and/or treatment maintenance (Yes or No), and whether it is applicable to initial treatment and/or treatment maintenance. The applicability should be substantiated in the Environmental Checklist Discussion.
- Timing. This column identifies the time frame in which the SPR or mitigation measure will be implemented (e.g., prior to treatment, during treatment, etc.).
- Implementing Entity. The implementing entity is the agency or organization responsible for carrying out the requirement. This could include the project proponent's project manager, a technical specialist (e.g., archeologist or biologist), a vegetation management contractor, a partner agency or organization, or other entities that are primarily responsible for carrying out each project requirement.
- Verifying/Monitoring Entity. The verifying/monitoring entity is the agency or organization responsible for ensuring that the requirement is implemented. The verifying/monitoring entity may be different from the implementing entity.

Qualification Requirements for Biological and Cultural Resource Measures

The biological and cultural resource SPRs and mitigation measures in the attached MMRP table require that qualified individuals implement components of the measures. The CalVTP PEIR requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including archaeologist, 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 or equivalent state or local agency training or certification. Work performed by an archaeologically-trained resource professional must be reviewed and approved by a qualified archaeologist.

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

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

Qualified RPF or Biologist: To be qualified, an RPF or biologist would hold a wildlife biology, botany, ecology, forestry, or other relevant degree from an accredited university and: 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting field surveys of relevant species or resources, 4) be knowledgeable about survey protocols, 5) be knowledgeable about state and federal laws, including the Coastal Act, regarding the protection of special-status species, communities, and environmentally sensitive habitat, 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	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Administrative Standard Project Requirements				
SPR AD-1 Project Proponent Coordination: For treatments coordinated with CAL FIRE, CAL FIRE will meet with the project proponent to discuss all natural and environmental resources that must be protected using SPRs and any applicable mitigation measures; identify any sensitive resources onsite; and discuss resource protection measures. For any prescribed burn treatments, CAL FIRE will also discuss the details of the burn plan in the incident action plan (IAP). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project proponent will comply with this SPR.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project includes manual and mechanical treatments, prescribed pile and broadcast burning, and herbicide treatments which will occur in delineated treatment areas, with flagging around sensitive resources, such as Watercourse and Lake Protection Zones, archeological resources, or sensitive biological species. The implementation of this SPR will minimize the risk of an impact to sensitive resources resulting from operations.				
SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: The project proponent 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.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This SPR will be implemented to reduce the risk of inconsistencies with local plans, policies, and ordinances. This project is consistent with the San Mateo County Local Coastal Program (LCP) Policy 9.18 - Regulation of Development on 30% or Steeper Slopes, which indicates that development that does not constitute a building, road or driveway, or require grading shall be exempt from this provision that prohibits development on slopes greater than or equal to 30%. This project does not involve the development of any structures or buildings, roads or driveways, or grading. This project is considered a forest health fuels reduction project that will include the treatment of dead, dying, diseased, or dense vegetation that will be chipped and spread as mulch, piled and burned, incinerated, or treated with prescribed broadcast burning and will leave root systems intact to support regenerative sprouting and decrease the potential for erosion in treated areas. Hand and mechanized operations will not occur on unstable soils.				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AD-4 Public Notifications for Prescribed Burning: At least three days prior to the commencement of prescribed burning operations, the project proponent will: 1) post signs along the closest public roadway to the treatment area describing the activity and timing, and requesting persons in the area to contact a designated representative of the project proponent (contact information will be provided with the notice) if they have questions or smoke concerns; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and contact information; 3) send the local county supervisor and county administrative officer (or equivalent official responsible for distribution of public information) a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project proponent will post public notifications and notify elected officials of burn activities several months in advance of prescribed fire operations, indicating the approximate locations of planned burn activities as well as a several month-long window in which burns may occur. Based upon the best available weather data, as individual burn plots come into prescription (i.e., weather and resources allow for burns to be conducted), the project proponent will post specific information as described in this SPR.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Contractor compliance with this SPR will maintain the natural landscape within the project area and minimize impacts to wildlife as a result of human generated trash.				
SPR AD-6 Public Notifications for Treatment Projects. One to three days prior to the commencement of a treatment activity, the project proponent 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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	CSP	SMRCD/CSP
Project Specific Implementation: This project will occur within Butano State Park, which is utilized by hikers, bikers, equestrians, and campers for recreational purposes. Notifications shall be located in an area visible by park users and neighbors.				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism. Information on proposed projects (PSA in progress): ▶ GIS data that include project location (as a point); ▶ 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 no later than two weeks prior to project approval. The project proponent may also make information available to the public via other mechanisms (e.g., the proponent's own website). Information on approved projects (PSA complete): ▶ A completed PSA Environmental Checklist; ▶ A completed Mitigation Monitoring and Reporting Program (using Attachment A to the Environmental Checklist); ▶ GIS data that include a polygon(s) of the project area, showing the extent of each treatment type included in the project (ecological restoration, fuel break, WUI fuel reduction). Information on completed projects: ▶ GIS data that include a polygon(s) of the treated area, showing the extent of each treatment type implemented (ecological restoration, fuel break, WUI fuel reduction) ▶ A post-project implementation report (referred to by CAL FIRE as a Completion Report) that includes ▪ Size of treated area (typically acres); ▪ Treatment types and activities; ▪ Dates of work;	Initial Treatment: Y Treatment Maintenance: Y	Prior, During, Post	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▪ A list of the SPRs and mitigation measures that were implemented ▪ Any explanations regarding implementation if required by SPRs and mitigation measures (e.g., explanation for feasibility determination required by SPR BIO-12; explanation for reduction of a no-disturbance buffer below the general minimum size described in Mitigation Measures BIO-1a and BIO-2b). This SPR applies to all treatment activities and all treatment types, including treatment maintenance.				
Project Specific Implementation: The project proponent will comply with this SPR. In tandem with the requirements presented in SPR AD-7, in order to maintain compliance with the San Mateo County Forest Health and Fire Resilience PWP, following completion of treatment activities, a narrative explanation of project updates as well as photo documentation will be provided to the CCC. These additional reporting requirements will be provided at the interval associated with the reporting frequency of SPR AD-7.				
SPR AD-8 Request Access for Post-Treatment Assessment. For CAL FIRE projects, during contract development, CAL FIRE will include access to the treated area over a prescribed period (usually up to three years) to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance, as a contract term for consideration by the landowner. For public landowners, access to the treated area over a prescribed period will be a requirement of the executed contract. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior, During, Post	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project is located in Butano State Park, managed by the California Department of Parks and Recreation; requests to access the property for post-treatment assessments should be directed to the California Department of Parks and Recreation – Santa Cruz District, in coordination with the San Mateo Resource Conservation District.				
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	Initial Treatment: Y Treatment Maintenance: Y	Prior to all treatment activities. Coastal Act Compliance for this project will be achieved through Coastal Commission approval of the PSA and consistency with the CVTS.	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.				
Project Specific Implementation: This project area is located within the Coastal Zone of San Mateo County, therefore, this SPR applies to this project. Efforts have been made between the CCC, San Mateo Resource Conservation District (SMRCD) and other similar entities to develop a Public Works Plan (PWP) document that establishes a set of standards for CalVTP projects occurring within the coastal zone within San Mateo County that allows further treatments than presented in SPR BIO-8. The DRAFT Butano State Park PSA was sent to the CCC on August 10, 2022 for review. A Coastal Vegetation Treatment Standards (CVTS) document has been filled out for this project and was submitted to the CCC on August 10, 2022 review with the PSA (Attachment D). For the purposes of this document all of the Coastal Zone within the project area will be treated as ESHA. The basis of this project is to conduct ecologically restorative treatments that promote the persistence and resiliency of multiple vegetation communities and habitat types as environmentally sensitive habitat areas through a myriad of protection, conservation, and avoidance measures. The PSA/Addendum will be sent to the CCC for approval during their November hearing.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Contractors and CSP agency staff implementing manual and mechanical treatments will keep operations within designated treatment boundaries and will perform operations with the intent of exhibiting feathered vegetation densities in treatment areas to mimic natural transitions to changes in vegetation densities. Treatments will result in vegetation resembling open, park-like understories.				
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	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
roadways to the extent feasible. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Project Specific Implementation: The project is located on State Park land that is accessible and visible to the public, therefore, the project proponent and contractors will comply with this SPR.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project is located on State Park land that is accessible and visible to the public, therefore, the project proponent and contractors will comply with this SPR.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project property falls within the Bay Area Air Quality Management District (BAAQMD). The project proponent and contractors will comply with all applicable air quality requirements.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project property falls within the BAAQMD, as described above. The project proponent and contractors will submit a smoke management plan (FORM Rx-1) for any prescribed fires expected to exceed 10 acres in size or burn piles generated from more than 10 acres of land.				
SPR AQ-3 Create Burn Plan: The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels, tree	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
mortality, predicted emissions, greenhouse gas emissions, and soil heating. The project proponent will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.				
Project Specific Implementation: The project proponent (California State Parks) will create a burn plan using the National Wildfire Coordinating Group (NWCG) burn plan template, which is the department standard an includes the same, if not more, information than is required in the CAL FIRE burn plan template.				
SPR AQ-4 Minimize Dust: To minimize dust during treatment activities, the project proponent will implement the following measures: ▶ Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol. ▶ If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations. ▶ Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113. ▶ Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may "cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property," per Health and Safety Code Section 41700. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Project Specific Implementation: The listed measures within SPR AQ-4 will be implemented during operations.				
SPR AQ-5 Avoid Naturally Occurring Asbestos: The project proponent will avoid ground-disturbing treatment activities in areas identified as likely to contain naturally occurring asbestos (NOA) per maps and guidance published by the California Geological Survey, unless an Asbestos Dust Control Plan (17 CCR Section 93105) is prepared and approved by the air district(s) with jurisdiction over the treatment area. Any NOA-related guidance provided by the applicable air district will be followed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: N Treatment Maintenance: N			
Project Specific Implementation: A preoperational search indicates that there is no naturally occurring asbestos mapped within the treatment area, thus, this SPR does not apply.				
SPR AQ-6: Prescribed Burn Safety Procedures. Prescribed burns planned and managed by non-CAL FIRE crews will follow all safety procedures required of CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP). The IAP will include the burn dates; burn hours; weather limitations; the specific burn prescription; a communications plan; a medical plan; a traffic plan; and special instructions such as minimizing smoke impacts to specific local roadways. The IAP will also assign responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior, During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Three prescribed fire burn plans will be created for this project by the California Department of Parks and Recreation natural resource management staff and certified by a prescribed fire burn boss. An Incident Action Plan (IAP) will be produced prior to any burn operations.				
Archaeological, Historical, and Tribal Cultural Resources Standard Project Requirements				
SPR CUL-1 Conduct Record Search: An archaeological and historical resource record search will be conducted per the applicable state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches containing the treatment area requested by a landowner or other public agency in accordance applicable agency guidance. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: An internal records search, utilizing California Department of Parks and Recreation internal databases, was completed on June 30, 2022 by California State Parks Associate Archaeologist, Michael Grone.				
SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, the	Initial Treatment: Y	Prior	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
project proponent will notify the California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following: ▶ A written description of the treatment location and boundaries. ▶ Brief narrative of the treatment objectives. ▶ A description of the activities used (e.g., prescribed burning, mastication) and associated acreages. ▶ A map of the treatment area at a sufficient scale to indicate the spatial extent of activities. ▶ A request for information regarding potential impacts to cultural resources from the proposed treatment. ▶ A detailed description of the depth of excavation, if ground disturbance is expected. In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Treatment Maintenance: Y			
Project Specific Implementation: An information request letter containing the requirements listed above in SPR CUL-2 was mailed to the geographically affiliated tribes on July 27, 2022 by Martin Rizzo-Martinez, the California State Parks Historian II and Tribal Liaison. There were no responses received.				
SPR-CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist and/or archaeologically-trained resource professional will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior	CSP	SMRCD/CSP
Project Specific Implementation: Pre-field research has been conducted by State Parks Staff Archeologist as part of completing a full, confidential Archaeological Survey Report (ASR).				
SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with an archaeologically-trained resource professional and/or qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological or historical resources near or within the treatment area. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the applicable state or local	Initial Treatment: Y Treatment Maintenance: Y	Prior	CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Project Specific Implementation: Archaeological surveys will be completed prior to operations as part of completing a full, confidential Archaeological Survey Report (ASR). California State Parks retired archaeologist, Mark Hylkema, and Associate State Archaeologist, Mike Grone, were also consulted numerous times throughout this project and specifically, on June 30, 2022.				
SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment area, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. The project proponent, in consultation with culturally affiliated tribe(s), will develop effective protection measures for important cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, enforceable language, and will be included in the survey report in accordance with applicable state or local agency procedures. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This SPR will be implemented during treatment activities to minimize impacts to archaeological cultural resources discovered during operations.				
SPR CUL-6 Treatment of Tribal Cultural Resources: The project proponent, in consultation with the culturally affiliated tribe(s), will develop effective protection measures for important tribal cultural resources located within treatment areas. These measures may include adjusting the treatment location or design to entirely avoid cultural resource locations or changing treatment activities so that damaging effects to cultural resources will not occur. The project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. The project proponent will defer implementing the treatment until the tribe approves protection measures, or if agreement cannot be reached after a good-faith effort, the proponent determines that any or all feasible measures have been implemented, where feasible, and the resource is either avoided or protected. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This SPR will be implemented during treatment activities to minimize impacts to tribal cultural resources discovered during operations				
SPR CUL-7 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. Within a buffer of 100 feet of the built historical	Initial Treatment: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
resource, there will be no prescribed burning or mechanical treatment activities Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a qualified archaeologist. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Treatment Maintenance: Y			
Project Specific Implementation: The records search did not identify any built historic resources within the project area. However, if a built historic resource is discovered during operations, operations will cease, and the resource will be avoided.				
SPR CUL-8 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The implementation of this SPR will reduce the risk of operations resulting in an impact to sensitive archaeological, historical, or tribal cultural resources.				
Biological Resources Standard Project Requirements				
SPR BIO-1: Review and Survey Project-Specific Biological Resources. The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment, no more than one year prior to the submittal of the PSA, and no more than one year between completion of the PSA and implementation of the treatment project. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this PEIR for the ecoregion(s) where the treatment will occur. It will also include review of the best available, current data for the area, including vegetation mapping data, species distribution/range information, CNDDB, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, relevant BIOS queries, and relevant general and regional plans. Reconnaissance-level biological surveys will be general surveys that include visual and auditory inspection 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	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
time of year that is appropriate for identifying habitat and no more than one year prior to the submittal of the PSA, unless it can be demonstrated in the PSA that habitat assessments older than one year remain valid (e.g., site conditions are unchanged and no treatment activity has occurred since the assessment). If more than one year passes between completion of the PSA and initiation of the treatment project, the project proponent will verify the continued accuracy of the PSA prior to beginning the treatment project by reviewing for any data updates and/or visiting the site to verify conditions. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment:				
1. Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided. If, based on the data review and reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment: a. by physically avoiding the suitable habitat, or b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites). Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist. 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	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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: Initial data review and reconnaissance-level surveys have been conducted, see section 3.5 EC – Biological Resources in the PSA checklist for additional results.

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

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

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

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

SPR BIO-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	Initial Treatment: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Treatment Maintenance: Y			
Project Specific Implementation: The implementation of this SPR will minimize the risk of an impact to biological resources resulting from operations.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: SPR BIO-1 determined that the project area contains sensitive natural communities, however, adverse impacts can be avoided. Refer to Impact BIO-3 of this PSA for an analysis of the sensitive natural communities that occur within the project area.				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats: ▶ Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities. ▶ Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species. ▶ Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements. ▶ Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service).	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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 goals objectives and would result in effects to the Beneficial Functions of Riparian Zones equal or more favorable than those expected to result from application of the above measures. Deviation from the above design specifications, different protection measures and design standards will only be approved when the treatment plan incorporates an evaluation of beneficial functions of the riparian habitat and with written concurrence from CDFW. This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Project Specific Implementation: This project proposes the use of mechanical treatment outside of the WLPZ and will comply with overstory cover requirements in riparian areas.				
SPR BIO-5: Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub. The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and	Initial Treatment: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
chaparral are present. An ecological definition of type conversion is used in the CalVTP PEIR for assessment of environmental effects: a change from a vegetation type dominated by native shrub species that are characteristic of chaparral and coastal sage scrub vegetation alliances to a vegetation type characterized predominantly by weedy herbaceous cover or annual grasslands. For the PEIR, type conversion is considered in terms of habitat function, which is defined here as the arrangement and capability of habitat features to provide refuge, food source, and reproduction habitat to plants and animals, and thereby contribute to the conservation of biological and genetic diversity and evolutionary processes (de Groot et al. 2002). Some modification of habitat characteristics may occur provided habitat function is maintained (i.e., the location, essential habitat features, and species supported are not substantially changed). During the reconnaissance-level survey required in SPR BIO-1, a qualified RPF or biologist will identify chaparral and coastal sage scrub vegetation to the alliance level and determine the condition class and fire return interval departure of the chaparral and/or coastal sage scrub present in each treatment area. For all treatment types in chaparral and coastal sage scrub, the project proponent, in consultation with a qualified RPF or qualified biologist will: ▶ Develop a treatment design that avoids environmental effects of type conversion in chaparral and coastal sage scrub vegetation alliances, which will include evaluating and determining the appropriate spatial scale at which the proponent would consider type conversion, and substantiating its appropriateness. The project proponent will demonstrate with substantial evidence that the habitat function of chaparral and coastal sage scrub would be at least maintained within the identified spatial scale at which type conversion is evaluated for the specific treatment project. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, spatial needs of sensitive species, presence of sufficient seed plants and nurse plants, light availability, and edge effects may inform the determination of an appropriate spatial scale. ▶ The treatment design will maintain a minimum percent cover of mature native shrubs within the treatment area to maintain habitat function; the appropriate percent cover will be identified by the project proponent in the development of treatment design and be specific to the vegetation alliances that are present in the identified spatial scale used to evaluate type conversion. Mature native shrubs that are retained will be distributed contiguously or in patches within the stand. If the stand consists of multiple age classes, patches representing a range of middle to	Treatment Maintenance: Y			

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
old age classes will be retained to maintain and improve heterogeneity, to the extent needed to avoid type conversion. These SPR requirements apply to all treatment activities and all treatment types, including treatment maintenance. Additional measures will be applied to ecological restoration treatment types: ▶ For ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral and coastal sage scrub vegetation types. ▶ Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval (i.e., time since last burn is less than the average time listed as the fire return interval range in Table 3.6-1) unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved. ▶ A minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 60 percent, post treatment shrub canopy density will be no less than 40 percent). A different percent relative cover can be retained if the project proponent demonstrates with substantial evidence that alternative treatment design measures would result in effects on the habitat function of chaparral and coastal sage scrub that are equal or more favorable than those expected to result from application of the above measures. Biological considerations that may inform a deviation from the minimum 35 percent relative cover retention include but are not limited to soil moisture requirements, increased soil temperatures, changes in light/shading, presence of sufficient seed plants and nurse plants, erosion potential, and site hydrology. ▶ If the stand within the treatment area consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity. These SPR requirements apply to all treatment activities and only the ecosystem restoration treatment type, including treatment maintenance. A determination of compliance with the SB 1260 prohibition of type conversion in chaparral and coastal sage scrub is a statutory issue separate from CEQA compliance that may involve factors additional to the ecological definition and habitat functions presented in the PEIR, such as geographic context. It is beyond the legal scope of the PEIR to define SB 1260 type conversion and statutory compliance. The project				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
proponent, acting as lead agency for the proposed later treatment project, will be responsible for defining type conversion in the context of the project and making the finding that type conversion would not occur, as required by SB 1260. The project proponent will determine its criteria for defining and avoiding type conversion and, in making its findings, may draw upon information presented in this PEIR.				

Project Specific Implementation: Due to the occurrence of the project in the Coastal Zone, and consistent with Coastal Commission guidance, the following project-specific measures are required:

- The project proponent will design treatment activities to avoid type conversion where native coastal sage scrub and chaparral are present. The definition of type conversion is the conversion from one chaparral or coastal scrub vegetation alliance to another chaparral or coastal scrub vegetation alliance, or a change from a vegetation type dominated by native shrub species that are characteristic of chaparral and coastal sage scrub vegetation alliances to a vegetation type characterized predominantly by weedy herbaceous cover or annual grasslands.

The following additional measures are required for ecological restoration treatment types:

- For ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral and coastal sage scrub vegetation types.
- Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval (i.e., time since last burn is less than the average time listed as the fire return interval range in Table 3.6-1 in the CalVTP PEIR) unless the project proponent demonstrates with substantial evidence that the habitat function of chaparral and coastal sage scrub would be improved.
- A minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 70 percent, post treatment shrub canopy density will be no less than 35 percent). A different percent relative cover can be retained if the project proponent demonstrates with substantial evidence that alternative treatment design measures would result in effects on the habitat function of chaparral and coastal sage scrub that are equal or more favorable than those expected to result from application of the above measures. Biological considerations that may inform a deviation from the minimum 35 percent relative cover retention include but are not limited to soil moisture requirements, increased soil temperatures, changes in light/shading, presence of sufficient seed plants and nurse plants, erosion potential, and site hydrology.
- If the stand within the treatment area consists of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity.

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;	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.				
Project Specific Implementation: The project area contains the pathogen, *Phytophthora ramorum,* or Sudden Oak Death. Therefore, this SPR will be implemented to prevent the spread of the pathogen. Refer to the discussion of Pests, Disease, and Invasive Species under Impact BIO-3.				
Special-Status Plants				
SPR BIO-7: Survey for Special-Status Plants. If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status. If potentially occurring special-status plants are listed under CESA or ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS. For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.1 of this PEIR, surveys will not be required under the following circumstances:	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	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.				
Project Specific Implementation: In June and July of 2022, California State Parks Senior Environmental Scientist (Botanist), Tim Hyland, performed botanical surveys to detect special status vascular plant species or sensitive natural communities that might occur within the project property boundaries or that otherwise might be affected by the activities related to the proposed project. The surveys were conducted during a time when all vascular plant species were able to be identified to a sufficient taxonomic level to determine their rarity. The survey spanned manual and mechanical treatment areas and focused primarily on unique hydrologic features, as well as roads and trails due to microtopography and disturbance regimes associated with these features that result in the greatest diversity of both native and exotic species. Survey results are located in Attachment F. Subsequent botanical surveys will occur as necessary throughout the lifespan of this permitting document.				
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 PEIR, if it meets the following conditions. If a project requires a CDP by the Coastal Commission or a local government with a certified LCP (as applicable), the CDP approval may require modification to these conditions to further avoid and minimize impacts: ▶ The treatment will be designed, in compliance with the Coastal Act or LCP if a site is within a certified LCP area, to protect the habitat function of the affected ESHA, protect habitat values, and prevent loss or type conversion of habitat and vegetation types that define the ESHA, or loss of special-status species that inhabit the ESHA.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	CSP, SMRCD, and California Coastal Commission

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.				
Project Specific Implementation: Due to the project partially occurring within the coastal zone (Attachment B, Map 4), SPR BIO-8 would apply which requires consultation with the California Coastal Commission (CCC). Efforts have been made between the CCC, San Mateo Resource Conservation District, California State Parks, and other similar entities to develop a Public Works Plan (PWP), which establishes a set of standards for CalVTP projects occurring within the coastal zone of San Mateo County and allows further treatments than are presented in SPR BIO-8. The DRAFT Butano State Park PSA was sent to the CCC on August 10, 2022 date for review. Additionally, on April 28, 2022 a DRAFT set of treatment prescriptions were sent to the CCC staff and on April 29, 2022 the CCC staff accompanied the San Mateo RCD and California State Parks to the project site to discuss project scope, treatment prescriptions, and sensitive resources. A Coastal Vegetation Treatment Standards (CVTS) document has been filled out for this project and was submitted to the CCC on August 10, 2022 date with the PSA (Attachment D). As mentioned previously, for the purposes of this document the entirety of the Coastal Zone within the project are analyzed as ESHA. The basis of this project is to conduct ecologically restorative treatments that promote the persistence and resiliency of the various sensitive natural habitats within the project area through a myriad of protection, conservation, and avoidance measures.				
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;	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas; ▶ stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area; ▶ identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatment methods will be selected based on the invasive species present and may include herbicide application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles; ▶ treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and ▶ implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (Cal-IPC 2012, or current version). This SPR applies to all treatment activities and treatment types, including treatment maintenance.				
Project Specific Implementation: See Impact BIO-3 in the PSA and Attachment C: Biological Resource Species List and Analysis for additional information.				
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	Initial Treatment: Y ➢ Special-status salamanders ➢American badger ➢Special-status bats ➢San Francisco dusky-footed woodrat	No more than 14 days prior to all treatment activities.	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	➢Western pond turtle Treatment Maintenance: Y ➢Same as above			
Project Specific Implementation: See species-specific survey requirements and biological survey protocol in Attachment C: Biological Resources Species List and Analysis.				
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.	Initial Treatment: N Treatment Maintenance: N			
Project Specific Implementation: This SPR does not apply to this project because it does not include prescribed herbivory.				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
SPR BIO-12. Protect Common Nesting Birds, Including Raptors. The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP PEIR. The active nesting season will be defined by the qualified RPF or biologist. If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typically involving walking throughout the survey area, visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). If an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent will implement a feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following: ▶ Establish Buffer. The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities will be implemented outside of the buffer. The buffer location will be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location will include: presence of	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. ▶ Modify Treatment. The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment modifications will be determined by the project proponent in coordination with the qualified RPF or biologist. ▶ Defer Treatment. The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. Feasible actions will be taken by the project proponent to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies will be determined by the project proponent based on whether implementation of this SPR will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. Considerations may include limitations on the presence of environmental and atmospheric conditions necessary to execute treatment prescriptions (e.g., the limited seasonal windows during which prescribed burning can occur when vegetation moisture, weather, wind, and other physical conditions are suitable). If it is infeasible to avoid loss of common bird nests (not including raptor nests), the project proponent will document the reasons implementation of the avoidance strategies is infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). The following avoidance strategies may also be considered together with or in lieu of other actions for implementation by a project proponent to avoid disturbance to raptor nests: ▶ Monitor Active Raptor Nest During Treatment. A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance				

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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: See nesting bird survey protocol in Attachment C: Biological Resources Species List and Analysis. 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 avoidance strategies (within seven days prior to treatment). If an active nest is observed, implement avoidance strategies prior to and during all treatment activities.				
Geology, Soils, and Mineral Resource Standard Project Requirements				
SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project proponent will suspend mechanical, prescribed herbivory, and herbicide treatments if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials. This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During treatment projects if there is a "chance" (30 percent or more) of rain within the next 24 hours.	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project proponent will suspend mechanized operations to prevent this treatment activity from occurring during heavy precipitation if the National Weather Service forecast is a "chance" (30 percent or more averaged over each hour) of rain within the next 12 hours where mechanized operations are proposed from 6:00 am – 6:00 pm for that day's operation. This project proposes the use of herbicide treatments that will specifically follow SPR-GEO-1.				
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	Initial Treatment: Y Treatment Maintenance: Y	During treatment projects if there is a "chance" (30 percent or more) of rain within the next 24 hours.	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.				
Project Specific Implementation: Contractors will avoid driving heavy equipment and other high ground pressure vehicles on saturated soils to minimize the risk of soil compaction and disturbance.				
SPR GEO-3 Stabilize Disturbed Soil Areas: The project proponent will stabilize soil disturbed during mechanical, prescribed herbivory treatments, and prescribed burns that result in exposure of bare soil over 50 percent or more of the treatment area with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. 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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project proposes mechanical and prescribed burn treatments, therefore, this SPR applies to this project. The implementation of this SPR will stabilize disturbed soils following treatments if needed, recognizing that burns are often irregular leaving amounts of understory left in a mosaic pattern including live root systems that protect against erosion. Furthermore, prescribed burns typically result in scorch of tree and shrub leaves, which fall, often within days. This will reduce bare soil exposure to less than 50% in most habitat types. Masticated and chipped material left following mechanical treatments may also be utilized to minimize the amount of bare, exposed soils.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During and Post	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Project Specific Implementation: The implementation of this SPR will minimize the risk of erosion occurring within the treatment areas following mechanical and prescribed burning treatment activities.				
SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff via water breaks using the spacing and erosion control guidelines contained in Sections 914.6, 934.6, and 954.6(c) of the California Forest Practice Rules (February 2019 version). Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface run-off to be concentrated on downslopes, other erosion controls will be installed as needed to maintain site productivity by minimizing soil loss. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The implementation of this SPR will redirect stormwater runoff to minimize the risk of erosion occurring within treatment areas or road infrastructure utilized during operations following mechanical, manual, and prescribed burning treatment activities.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Burn piles are proposed under this project, therefore, this SPR applies. The implementation of this SPR will minimize the extent of soil impacts that may occur from burn piles. Burn piles will be implemented and supervised by California State Parks Burn Bosses or their designees and burn piles will not exceed 20 feet in length, width, or diameter, unless implemented in accordance with the exceptions described in the PEIR (CalVTP Final PEIR Volume II Section 2.7.6, page 47).				
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	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
(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.				
Project Specific Implementation: The proposed mechanical treatments are limited to slopes equal to or less than 40% and equipment access is limited to slopes equal to or less than 50% and the average slope of operation throughout the treatment areas ranges from approximately 20-30%. Please see the discussion under SPR AD-3 for information regarding consistency with the San Mateo County LCP Policy 9–18 - Regulation of Development on 30% or Steeper Slopes.				
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.	Initial Treatment: N Treatment Maintenance: N			
Project Specific Implementation: The proposed mechanical treatments are limited to slopes equal to or less than 40% and equipment access is limited to slopes equal to or less than 50% and the average slope of operation throughout the treatment areas ranges from approximately 20-30%, therefore, SPR GEO-8 does not apply to this project. Please see the discussion under SPR AD-3 for information regarding consistency with the San Mateo County LCP Policy 9–18 - Regulation of Development on 30% or Steeper Slopes.				
Greenhouse Gas Emissions Standard Project Requirements				
SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment projects subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and FRAP to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This SPR will be implemented to provide all necessary data required by the USFS and FRAP to fulfill AB 1504.				
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	Initial Treatment: Y		SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Treatment Maintenance: Y			
Project Specific Implementation: Mechanical, manual, and prescribed burning crews will comply with this SPR to minimize the risk of impacts resulting from leaks. The project proponent will Inspect all equipment for leaks prior to treatment projects; 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 projects. Additionally, drip torch fuel mixtures (diesel/gasoline) used for implementation of prescribed fire will be pre-mixed off site, typically at a local maintenance yard and brought to the site. Drip torches will be inspected for leaks and put out of service or repaired as needed. Filling of drip torches will not occur near any watercourses or protection zones to watercourses. Helitorches may be used for this project as well, which rely on a mixture of gasoline or gasoline/diesel with a thickening agent. Fuel mixing will occur in predetermined locations away from watercourses or protection zones to watercourses, and all mixing will occur in contained mixing sites to mitigate any potential spills.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Manual treatment crews will utilize mechanized hand tools and equipment with spark arrestors.				
SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Manual treatment crews will be equipped with appropriate fire extinguishing equipment that is consistent with PRC Section 4428.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Contracting crews will comply with this SPR.				
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):	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.				
Project Specific Implementation: This project proposes the use of herbicide treatments, therefore, a SPRP will be prepared prior to herbicide treatments.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project proposes the use of herbicide treatments, therefore, the project proponent will implement this SPR prior and during herbicide treatments.				
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	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.				
Project Specific Implementation: This project proposes the use of herbicide treatments, therefore, the project proponent will implement this SPR during herbicide treatments.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project proposes the use of herbicide treatments, therefore, the project proponent will implement this SPR during herbicide treatments.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project proposes the use of herbicide treatments, therefore, the project proponent will implement this SPR prior and during herbicide treatments.				
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	Initial Treatment: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this includes compliance with the conditions of general waste discharge requirements (WDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, WDR and Waivers of waste discharge requirements for fuel reduction and forest health activities require that wastes, including but not limited to petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust, bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Water Board staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. The specifications for each WDR and Waiver vary by region. Regions 2 (San Francisco Bay), 4 (Los Angeles), 8 (Santa Ana), and 7 (Colorado River) are highly urban or minimally forested and do not offer WDRs or Waivers for fuel reduction or vegetation management activities. The current applicable WDRs and Waivers for timber and vegetation management activities are included in Appendix HYD-1. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Treatment Maintenance: Y			
Project Specific Implementation: Portions of this project fall within the Bay Area Regional Water Quality Control Board as well as the Central Coast Regional Water Quality Control Board. The project proponent may use the State Water Board's Vegetation Treatment General Order. The project will be automatically enrolled (through implementation of SPR AD-7) in the State Water Board's Vegetation Treatment General Order, which pertains to projects that prepare a CalVTP PSA or PSA/Addendum. 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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: No new roads will be constructed under this project.				
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.	Initial Treatment: N Treatment Maintenance: N			

<table>
<tr><th>Standard Project Requirements</th><th>Applicable? (Y/N)</th><th>Timing</th><th>Implementing Entity</th><th>Verifying/Monitoring Entity</th></tr>
<tr><td>▶ 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.</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="5">Project Specific Implementation: Prescribed herbivory is not proposed for this project; thus, this SPR does not apply.</td></tr>
<tr><td>SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is based on 14 CCR Section 916 .5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.
Procedures for Determining Watercourse and Lake Protection Zone (WLPZ) widths
<table>
<tr><th>Water Class</th><th>Class I</th><th>Class II</th><th>Class III</th><th>Class IV</th></tr>
<tr><td>Water Class Characteristics or Key Indicator Beneficial Use</td><td>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.</td><td>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.</td><td>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.</td><td>Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.</td></tr>
<tr><td colspan="5">WLPZ Width (ft) – Distance from top of bank to the edge of WLPZ</td></tr>
<tr><td>< 30 % Slope</td><td>75</td><td>50</td><td></td><td></td></tr>
</table>
</td><td>Initial Treatment: Y

Treatment Maintenance: Y</td><td>Prior and During</td><td>SMRCD/CSP</td><td>SMRCD/CSP</td></tr>
</table>

Standard Project Requirements				Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
30-50 % Slope	100	75	Sufficient to prevent the degradation of downstream beneficial uses of water. Determined on a site-specific basis.				
>50 % Slope	150	100					

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

The following WLPZ protections will be applied for all treatments:

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

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.				
Project Specific Implementation: Existing WLPZ's within proximity to the proposed treatment areas will be flagged prior to operations to minimize the risk of treatment activities resulting in an impact to watercourses.				
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	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.				
Project Specific Implementation: This SPR will be implemented to protect non-target species and special-status species from herbicide use.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project proponent will 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.				
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,	Initial Treatment: Y	During	SMRCD/CSP	SMRCD/CSP

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.	Treatment Maintenance: Y			
Project Specific Implementation: San Mateo County defines daytime hours as 7:00am to 6:00pm Monday through Friday or 9:00am to 5:00pm on Saturdays under SMC PRC Section 4.88.360(e). The project proponent will comply with this SPR.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The implementation of this SPR will reduce the amount of ambient noise produced during operations.				
SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation. This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The implementation of this SPR will reduce the amount of ambient noise produced during operations.				
SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses: 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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project will occur on State Park property that has areas frequented by the public for recreational purposes. Equipment will be staged away from areas occupied by or frequented by the public where feasible.				

Standard Project Requirements	Applicable? (Y/N)	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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The implementation of this SPR will reduce the amount of ambient noise produced during operations.				
SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. 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.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: This project proposes mechanical treatment activities, therefore, appropriate notifications of mechanical treatment activities will be sent out within 1,500 feet of noise-sensitive receptors.				
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 to will coordinate with the owner/manager of that recreation area or facility. If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, notification of the treatment activity will be provided to the Administrative Officer (or equivalent official responsible for distribution of public information) of the county(ies) in which the affected recreation area or facility is located. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Due to the climatic and personnel requirements of prescribed fire operations, advanced notice of operations is often limited. To the extent feasible, the project proponent will post notifications of trail closures for prescribe fire operations as soon as possible. For manual, mechanical, and herbicide treatments, closures will be posted at least two weeks in advance.				
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	Initial Treatment: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

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

Standard Project Requirements	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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.				
Project Specific Implementation: The project proponent will comply with this SPR if disposal of material outside of the treatment area is proposed.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Aesthetics and Visual Resources				
Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks The project proponent will conduct a visual reconnaissance of the treatment area prior to implementing non-shaded fuel breaks to observe the surrounding landscape and determine if public viewing locations, including scenic vistas, public trails, and state scenic highways, have views of the proposed treatment area. If none are identified, the non-shaded fuel break may be implemented without additional visual mitigation. If the project proponent identifies public viewing points, including heavily used scenic vistas, public trails, recreation areas, and state scenic highways with lengthy views (i.e., longer than a few seconds) of a proposed non-shaded fuel break treatment area, the project proponent will, prior to implementation, attempt to identify any feasible change in location of the fuel break to reduce its visibility from public viewpoints. If no feasible location changes exist that would reduce impacts to public viewers and achieve the intended wildfire risk reduction objectives of the proposed non-shaded fuel break, the project proponent will implement, where feasible, a shaded fuel break rather than a non-shaded fuel break, if the shaded fuel break would achieve the intended wildfire risk reduction objectives. With the shaded fuel break, the project proponent will thin and feather adjacent vegetation to break up the linear edges of the fuel break and strategically preserve vegetation at the edge of the fuel break, as feasible, to help screen public views and minimize the contrast between the fuel break and surrounding vegetation.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: Because portions of the treatment area along Butano Fire Road may be visible to the public, Mitigation Measure AES-3 will be utilized, which requires the project proponent to conduct a visual reconnaissance of the non-shaded fuel break treatment areas to determine if public viewing areas have a view of the treatment locations. If it is determined that				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
there are public viewing areas with views of the non-shaded fuel break treatment types, then the treatment area will be moved if feasible. If the treatment area cannot be moved, it will be thinned and feathered at the edge of the fuel break to strategically preserve vegetation, as feasible to help screen public views and minimize the contrast between the fuel break and surrounding vegetation.				
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.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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.				
Project Specific Implementation: The components of Mitigation Measure AQ-1 that have been determined by the project proponent to be feasible and would be implemented to reduce emissions include the use of gasoline-powered equipment and encourages carpooling to the project site. Equipment meeting Tier 4 emission standards, Best Available Control Technology for emissions reductions of NOX and PM on equipment and the use of renewable fuel would be implemented to the best extent feasible.				
Archaeological, Historical, and Tribal Cultural Resources				
Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find. The qualified archaeologist will work with the project proponent to develop a primary records report that will comply with applicable state or local agency procedures. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan will be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find constitutes a unique archaeological resource, subsurface historical resource, or tribal cultural resource), the archaeologist will work with the project proponent to develop appropriate procedures to protect the integrity of the resource. Procedures could include preservation in place (which is the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or recovery of scientifically consequential information from and about the resource. Any find will be recorded standard DPR Primary Record forms (Form DPR 523) will be submitted to the appropriate regional information center.	Initial Treatment: Y Treatment Maintenance: Y	During	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project proposes mechanical, manual, and prescribed burning treatments that would result in ground disturbance and have potential to lead to inadvertent discoveries of archaeological resources or subsurface historical resources. The implementation of this Mitigation Measure will minimize the impacts to subsurface resources that may be discovered during operations.				
Biological Resources				
Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA	Initial Treatment: Y	Prior	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
If listed plants are determined to be present through application of SPR BIO-1 and SPR BIO-7, the project proponent will avoid and protect these species by establishing a no-disturbance buffer around the area occupied by listed plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway), exceptions to this requirement are listed later in this measure. The no-disturbance buffers will generally be a minimum of 50 feet from listed plants, but the size and shape of the buffer zone may be adjusted if a qualified RPF or botanist determines that a smaller buffer will be sufficient to avoid killing or damaging listed plants or that a larger buffer is necessary to sufficiently protect plants from the treatment activity. The appropriate buffer size will be determined based on plant phenology at the time of treatment (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the treatment method being used, and environmental conditions and terrain. For example, paint-on or wicking application of herbicides to invasive plants may be implemented within 50 feet of listed plant species without posing a risk, especially if the listed plants are dormant at the time of application. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 50 feet from a listed plant, a qualified RPF or botanist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report) with a science-based justification for the deviation. No fire ignition (nor use of associated 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	Treatment Maintenance: Y			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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: A botanical survey completed in June and July of 2022, by California State Parks Senior Environmental Scientist (Botanist) Tim Hyland, did not yield any occurrences of CESA or ESA listed species. If CESA or ESA listed species are identified in subsequent botanical or general biological field surveys, then the project proponent will comply with this Mitigation Measure.				
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	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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 (nor use of associated accelerants) will occur within the special-status plant buffer. A qualified RPF or botanist with knowledge of the special-status plant species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment would not maintain habitat function of the special-status plant habitat (i.e., the habitat would be rendered unsuitable) or because the loss of special-status plants would substantially reduce the number or restrict the range of a special-status plant species. If the project proponent determines the impact on special-status plants would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status plants or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-1c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the special-status plants would benefit from treatment in the occupied habitat area even though some of the non-listed special-status plants may be killed during treatment activities. For a treatment to be considered beneficial to non-listed special-status plants, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status plants, no compensatory mitigation will be required.				
Project Specific Implementation: A botanical survey completed in June and July of 2022, by California State Parks Senior Environmental Scientist (Botanist), Tim Hyland, of treatment areas did not yield any occurrences of CESA or ESA listed species, however, two special-status plant species were identified. Andersons's or Santa Cruz manzanita (*Arctostaphylos andersonii*) and California				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
bottle-brush grass (*Elymus californicus*) were both identified within the treatment area. Species-specific information is located in attachment F. If any non CESA or ESA listed special-status species are identified in subsequent botanical or general biological field surveys, then the project proponent will comply with this Mitigation Measure.				
Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants If significant impacts on listed or non-listed special-status plants cannot feasibly be avoided as specified under the circumstances described under Mitigation Measures BIO-1a and 1b, the project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant impacts that require compensatory mitigation and describes the compensatory mitigation strategy being implemented and how unavoidable losses of special-status plants will be compensated. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. If the special-status plant taxa are listed under ESA or CESA, the plan will be submitted to CDFW and/or USFWS (as appropriate) for review and comment. The first priority for compensatory mitigation will be preserving and enhancing existing populations outside of the treatment area in perpetuity, or if that is not an option because existing populations that can be preserved in perpetuity are not available, one of the following mitigation options will be implemented by the project proponent instead: ▶ creating populations on mitigation sites outside of the treatment area through seed collection and dispersal (annual species) or transplantation (perennial species); ▶ purchasing mitigation credits from a CDFW- or USFWS-approved conservation or mitigation bank in sufficient quantities to offset the loss of occupied habitat; and ▶ if the affected special-status plants are not listed under ESA or CESA, compensatory mitigation may include restoring or enhancing degraded habitats so that they are made suitable to support special-status plant species in the future. If relocation efforts are part of the Compensatory Mitigation Plan, the plan will include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements. The following performance standards will be applied for relocation: ▶ the extent of occupied area will be substantially similar to the affected occupied habitat and will be suitable for self-producing populations. Re-located/re-established populations will be considered suitable for self-producing when:	Initial Treatment: N Treatment Maintenance: N	NA	NA	NA

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ habitat conditions allow for plants to reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and ▶ reestablished habitats contain an occupied area comparable to existing occupied habitat areas in similar habitat types in the region. If preservation of existing populations or creation of new populations is part of the mitigation plan, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands and actions (e.g., the number and type of credits, location of mitigation bank or easement, restoration or enhancement actions), parties responsible for the long-term management of the land, and the legal and funding mechanisms (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. If mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, funding assurances, and success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations. If mitigation includes restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. If the loss of occupied habitat cannot be offset (e.g., if preservation of existing populations or creation of new populations through relocation efforts are not available for a certain species), and as a result treatment activities would substantially reduce the number or restrict the range of listed plant species, then the treatment will not qualify as within the scope of this PEIR. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit for state-listed plants), if these requirements are equally or more effective than the mitigation identified above.				
Project Specific Implementation: In June and July of 2022, California State Parks Senior Environmental Scientist (Botanist), Tim Hyland, performed botanical surveys to detect special status vascular plant species or sensitive natural communities that might occur within the project property boundaries or that otherwise might be affected by the activities related to the proposed project. The				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
surveys were conducted during a time when all vascular plant species were able to be identified to a sufficient taxonomic level to determine their rarity. The survey spanned manual and mechanical treatment areas and focused primarily on unique hydrologic features, as well as roads and trails due to microtopography and disturbance regimes associated with these features that result in the greatest diversity of both native and exotic species. No CESA or ESA listed species were identified and all species can be avoided under MM BIO-1b..If operations result in any additional discoveries of special-status plant species in the project area, it is expected that the avoidance measures outlined in MM BIO-1a and MM BIO-1b will be feasible and further compensatory mitigations will not be necessary.				
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. <u>Maintain Habitat Function</u> ▶ The project proponent will design treatment activities to maintain the habitat function, by implementing the following:	Initial Treatment: Y ➢California red-legged frog ➢Mountain Lion ➢San Francisco garter snake ➢Marbled murrelet ➢Western bumble bee Treatment Maintenance: Y Same as above	During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▪ While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement) of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; dens; tree snags; large raptor nests [including inactive nests]; downed woody debris; food sources). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science. ▪ If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that listed or fully protected wildlife with specific requirements for high canopy cover (e.g., Humboldt marten, fisher, spotted owl, coastal California gnatcatcher, riparian woodrat) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted [e.g., 50 percent for coastal California gnatcatcher]) such that habitat function is maintained. ▶ A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. Because this measure pertains to species listed under CESA or ESA or are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS/NOAA Fisheries regarding the determination that habitat function is maintained. If consultation determines that the treatment will not maintain habitat function for the special-status species, the project proponent will implement Mitigation Measure BIO-2c.				
Project Specific Implementation: Presence is assumed for California red-legged frog, marbled murrelet, and mountain lion. Additional CESA and ESA listed species with potential to occur within the project area include San Francisco garter snake and western bumble bee. Species-specific avoidance and minimization measures are located under Impact BIO-2 in the PSA checklist. Additionally, recommended avoidance and minimization strategies for marbled murrelet within the Santa Cruz Mountains are outlined in Attachment G. Butano State Park has ongoing monitoring efforts for marbled murrelets, including audio visual surveys, radar surveys, and audio recording units, as described in Impact BIO-2.				
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	Initial Treatment: Y ➢Special-status salamanders ➢American badger	Prior and During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following. <u>Avoid Mortality, Injury, or Disturbance of Individuals</u> ▶ The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals: For all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around occupied sites (e.g., nests, dens, roosts, middens, burrows, nurseries). Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance; however, buffers will generally be a minimum of 100 feet, unless site conditions indicate a smaller buffer would be sufficient for protection or a larger buffer would be needed. Factors to be considered in determining buffer size will include, but not be limited to, the species' tolerance to disturbance; the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; baseline levels of noise and human activity; and treatment activity. Buffer size may be adjusted if the qualified RPF or biologist determines that such an adjustment would not be likely to adversely affect (i.e., cause mortality, injury, or disturbance to) the species within the nest, den, burrow, or other occupied site. If a no-disturbance buffer is reduced below 100 feet from an occupied site, a qualified RPF or biologist will provide the project proponent with a site- and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report). ▶ No-disturbance buffers will be marked with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). No activity will occur within the buffer areas until the qualified RPF or biologist has determined that the young have fledged or dispersed; the nest, den, or other occurrence is no longer active; or reducing the buffer would not likely result in disturbance, mortality, or injury. A qualified RPF, biologist, or biological technician will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or	➢Special-status bats ➢San Francisco dusky-footed woodrat ➢Western pond turtle Treatment Maintenance: Y Same as above.			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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 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				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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: Other special status wildlife species with potential to occur within the project area include the Santa Cruz black salamander, California giant salamander, pallid bat, Townsend's big-eared bat, San Francisco dusky-footed woodrat, American badger, and western pond turtle. Species specific avoidance and minimization measures can be found in SPR BIO-2 in the PSA as well as Attachment C: Biological Resources Species List and Analysis.				
Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities) If the provisions of Mitigation Measure BIO-2a, BIO-2b, BIO-2d, BIO-2e, BIO-2f, or BIO-2g cannot be implemented and the project proponent determines that additional	Initial Treatment: N			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
mitigation is necessary to reduce significant impacts, the project proponent will compensate for such impacts to species or habitat by acquiring and/or protecting land that provides (or will provide in the case of restoration) habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of the treatment. Compensation may include: 1. Preserving existing habitat outside of the treatment area in perpetuity; this may entail purchasing mitigation credits and/or lands from a CDFW- or USFWS-approved entity in sufficient quantity to offset the residual significant impacts, generally at a ratio of 1:1 for habitat; and 2. Restoring or enhancing existing habitat within the treatment area or outside of the treatment area (including decommissioning roads, adding perching structures, removing existing perching structures, or removing existing movement barriers or other existing features that are adversely affecting the species). The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanisms for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored habitat. Review requirements are as follows: ▶ The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to	Treatment Maintenance: N			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. ▶ For species listed under ESA or CESA or a California Fully Protected Species, the project proponent will submit the mitigation plan to CDFW and/or USFWS/NOAA Fisheries for review and comment. ▶ For other special-status wildlife species the project proponent may consult with CDFW and/or USFWS regarding the availability and applicability of compensatory mitigation and other related technical information. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., incidental take permit), if these requirements are equally or more effective than the mitigation identified above.				
Project Specific Implementation: This Mitigation Measure will not be implemented because the provisions outlined in Mitigation Measures BIO-2a and BIO-2b can be implemented and no additional or compensatory mitigation would be necessary to reduce significant impacts. Therefore, this Mitigation Measure does not apply to this project.				
Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities) If elderberry shrubs within the documented range of valley elderberry longhorn beetle are identified during review and surveys for SPR BIO-1, and valley elderberry longhorn beetle or likely occupied suitable elderberry habitat (e.g., within riparian, within historic riparian, containing exit holes) is confirmed to be present during protocol-level surveys following the protocol outlined in USFWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) per SPR BIO-10, the following protective measures will be implemented to avoid and minimize impacts to valley elderberry longhorn beetle: ▶ If elderberry shrubs are 165 feet or more from the treatment area, and treatment activities would not encroach within this distance, direct or indirect impacts are not expected and further mitigation is not required. ▶ If elderberry shrubs are located within 165 feet of the treatment area, the following measures will be implemented: ▪ A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant will be fenced or flagged and maintained to avoid direct impacts (e.g., damage to root system) that could damage or kill the plant, with the exception of the following activities: – Manual trimming of elderberry shrubs will only occur between November and February and will avoid removal of any branches or stems that are greater than or equal to 1 inch in	Initial Treatment: N Treatment Maintenance: N			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
diameter to avoid and minimize adverse effects on valley elderberry longhorn beetle. – Manual or mechanical vegetation treatment within the drip-line of any elderberry shrub will be limited to the season when adults are not active (August - February), will be limited to methods that do not cause ground disturbance, and will avoid damaging the elderberry. ▪ A qualified RPF, biologist, or biological technician familiar with valley elderberry longhorn beetle and its life history will monitor the work area to verify the avoidance and minimization measures are implemented. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to valley elderberry longhorn beetle. If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of VELB or degradation of occupied habitat such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.				
Project Specific Implementation: The project area does not contain potentially suitable habitat for Valley Elderberry Longhorn Beetle; therefore, this Mitigation Measures does not apply.				
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.	Initial Treatment: N Treatment Maintenance: N			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Treatments will be conducted in a patchy pattern to the extent feasible in areas that are not occupied but are within the range of the federally listed butterfly, such that the entirety of the habitat is not burned or removed and untreated portions of suitable habitat are retained. If the project proponent cannot implement the measures above to avoid mortality, injury, or disturbance of federally listed butterflies or degradation of occupied habitat (host plants) such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c. CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of any feasible impact avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed butterflies or degradation of occupied habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c. Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA, because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status butterflies would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status butterflies or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status butterfly species would benefit from treatment in the occupied habitat area even though some may be killed, injured or disturbed during treatment activities. For a treatment to be considered beneficial to special-status butterfly species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity

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.

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

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

Mitigation Measures		Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Quino checkerspot butterfly	dwarf plantain, purple owl's clover				
Project Specific Implementation: The project area does not contain potentially suitable habitat for special-status butterflies; therefore, this Mitigation Measure does not apply. As referenced in Attachment C: Biological Resources Species List and Analysis, overwintering Monarch butterfly habitat is located within 5 miles of the project property boundary, however, preferred habitat including eucalyptus, Monterey pine, and Monterey cypress are not located within the project area.					

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
Mitigation Measure BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities) If treatment activities would occur within the limited range of any state or federally listed beetle, fly, grasshopper, or snail, and these species are identified as occurring or having potential to occur due to the presence of potentially suitable habitat during review and surveys for SPR BIO-1 and surveys for SPR BIO-10, then the following measures will be implemented: ▶ To avoid and minimize impacts to Mount Hermon June beetle and Zayante band-winged grasshopper, treatment activities will not occur within "Sandhills" habitat in Santa Cruz County, the only suitable habitat for these species. ▶ To avoid and minimize impacts to Casey's June beetle, Delhi Sands flower-loving fly (*Rhaphiomidas terminates abdominalis*), Delta green ground beetle (*Elaphrus virisis*), Morro shoulderband snail, Ohlone tiger beetle (*Cicindela ohlone*), and Trinity bristle snail, treatment activities will not occur within habitat in the range of these species that is deemed suitable by a qualified RPF or biologist with familiarity of the species. If the project proponent cannot implement the measures above to avoid mortality, injury or disturbance to listed beetles, flies, grasshoppers, and snails, or degradation of suitable habitat such that its function would not be maintained, the project proponent will implement Mitigation Measure BIO-2c.	Initial Treatment: N Treatment Maintenance: N			
Project Specific Implementation: The project area does not contain potentially suitable habitat for special-status beetles, flies, grasshoppers, or snails; therefore, this Mitigation Measure does not apply.				
Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities)	Initial Treatment: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
If special-status bumble bees are identified as occurring during review and surveys under SPR BIO-1 and confirmed during protocol-level surveys per SPR BIO-10, or if suitable habitat for special-status bumble bees is identified during review and surveys under SPR BIO-1 (e.g., wet meadow, forest meadow, riparian, grassland, or coastal scrub habitat containing sufficient floral resources within the range of the species), then the project proponent will implement the following measures, as feasible: ▶ Prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February to avoid the bumble bee flight season. ▶ Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area. ▶ Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area). ▶ Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September). CESA and ESA Listed Species. A qualified RPF or biologist will determine if, after implementation of feasible avoidance measures (potentially including others not listed above), the treatment will result in mortality, injury, or disturbance to the species, or if after implementation of the treatment, habitat function will remain for the affected species. For species listed under CESA or ESA or that are fully protected, the qualified RPF or biologist will consult with CDFW and/or USFWS regarding this determination. If consultation determines that mortality, injury, or disturbance of listed bumble bees (in the event the Candidate listing is confirmed) or degradation of occupied (or assumed to be occupied) habitat such that its function would not be maintained would occur, the project proponent will implement Mitigation Measure BIO-2c. Other Special-status Species. A qualified RPF or biologist with knowledge of the special-status species' habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status species' habitat or because the loss of special-status individuals would	Treatment Maintenance: Y			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
substantially reduce the number or restrict the range of a special-status species. If the project proponent determines the impact on special-status bumble bees would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status bumble bees or degradation of occupied (or assumed to be occupied) habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the special-status bumble bee species would benefit from treatment in the occupied (or assumed to be occupied) habitat area even though some of the non-listed special-status bumble bees may be killed, injured, or disturbed during treatment activities. For a treatment to be considered beneficial to special-status bumble bee species, the qualified RPF or biologist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the species (or similar species) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to special-status bumble bees, no compensatory mitigation will be required.				
Project Specific Implementation: The project property includes potentially suitable habitat for western bumble bee (*Bombus* occidentalis). If presence of western bumble bee is confirmed through SPRs BIO-1 and BIO-10, then this Mitigation Measure will apply.				
Mitigation Measure BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory) The project proponent will implement the following measure if treatment activities are planned within the range of desert bighorn sheep, peninsular bighorn sheep, Sierra Nevada bighorn sheep, or pronghorn: ▶ Prescribed herbivory activities will be prohibited within a 14-mile buffer around suitable habitat for any species of bighorn sheep within the range of these species consistent with the more stringent recommendations in the Recovery Plan for Sierra Nevada bighorn sheep (USFWS 2007). ▶ Prescribed herbivory activities will be avoided within the range of pronghorn where feasible (where this range does not overlap with the range of any species of bighorn sheep).	Initial Treatment: N Treatment Maintenance: N			
Project Specific Implementation: This project does not include prescribed herbivory; therefore, this Mitigation Measure does not apply.				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
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).	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/ CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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 dataorg/). ▶ 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				

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-3b will be implemented. The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or botanist that the sensitive natural community or oak woodland would benefit from treatment in the occupied habitat area even though some loss may occur during treatment activities. For a treatment to be considered beneficial to a sensitive natural community or oak woodland, the qualified RPF or botanist will demonstrate with substantial evidence that habitat function is reasonably expected to improve with implementation of the treatment (e.g., by citing scientific studies demonstrating that the community (or similar community) has benefitted from increased sunlight due to canopy opening, eradication of invasive species, or otherwise reduced competition for resources), and the substantial evidence will be included in the PSA. If it is determined that treatment activities would be beneficial to sensitive natural communities or oak woodlands, no compensatory mitigation will be required.				
Project Specific Implementation: The project area contains numerous sensitive natural communities including the redwood forest alliance, Douglas-fir – tanoak alliance, coastal scrub and chaparral, riparian vegetation, and riparian habitat. However, this project falls under the exception for this Mitigation Measure because it has been determined by qualified RPFs and botanists that sensitive natural communities would benefit from treatments in occupied habitat. Substantial evidence for each community is detailed in Impact BIO-3 of the PSA checklist.				
Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement the following actions: ▶ Compensate for unavoidable losses of sensitive natural community and oak woodland acreage and function by: ▪ restoring sensitive natural community or oak woodland functions and acreage within the treatment area; ▪ restoring degraded sensitive natural communities or oak woodlands outside of the treatment area at a sufficient ratio to offset the loss of acreage and habitat function; or ▪ preserving existing sensitive natural communities or oak woodlands of equal or better value to the sensitive natural community lost through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function. ▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on sensitive natural communities or oak woodlands	Initial Treatment: N Treatment Maintenance: N			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
that require compensatory mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory habitat will be preserved in perpetuity. 2. For restoring or enhancing habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan in order to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan.				
Project Specific Implementation: This Mitigation Measure does not apply because significant impacts to sensitive natural communities can be avoided and treatments are designed in a manner that will be beneficial to sensitive natural communities and oak woodlands. Please refer to Impact BIO-3 for information regarding sensitive natural communities.				
Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat If, after implementation of SPR BIO-4, impacts to riparian habitat remain significant under CEQA, the project proponent will implement the following: ▶ Compensate for unavoidable losses of riparian habitat acreage and function by: ▪ restoring riparian habitat functions and acreage within the treatment area; ▪ restoring degraded riparian habitat outside of the treatment area; ▪ purchasing riparian habitat credits at a CDFW-approved mitigation bank; or ▪ preserving existing riparian habitat of equal or better value to the riparian habitat lost through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function and value. ▶ The project proponent will prepare a Compensatory Mitigation Plan that identifies the residual significant effects on riparian habitat that require compensatory	Initial Treatment: N Treatment Maintenance: N			

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
mitigation and describes the compensatory mitigation strategy being implemented to reduce residual effects, and: 1. For preserving existing riparian habitat outside of the treatment area in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The project proponent will submit evidence that the necessary mitigation has been implemented or that the project proponent has entered into a legal agreement to implement it and that compensatory plant populations will be preserved in perpetuity. 2. For restoring or enhancing riparian habitat within the treatment area or outside of the treatment area, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. The project proponent will consult with CDFW and/or any other applicable responsible agency prior to finalizing the Compensatory Mitigation Plan to satisfy that responsible agency's requirements (e.g., permits, approvals) within the plan. Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.				
Project Specific Implementation: This project proposes mechanical treatments outside of the WLPZ and will comply with overstory cover requirements in riparian areas.				
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).	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ 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 (nor use of associated accelerants) will occur within the wetland buffer				
Project Specific Implementation: A qualified RPF or biologist will adhere to all requirements outlined above in Mitigation Measure BIO-4. The treatment area occurs in close proximity to Little Butano Creek, an unnamed class II tributary to Butano Creek, and several areas delineated as Vancouverian Freshwater Wet Meadow and Marsh Group (*Carex barbarae* alliance), via the SMC FSCVMLD.				
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:	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/ CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
▶ Retain Known Nursery Sites. A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment ▶ Establish Avoidance Buffers. The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and after treatment activities will be required. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to special-status species.				
Project Specific Implementation: If through the implementation of SPR BIO-10 and other biological surveys any nursery sites are identified by the project proponent or supervised designee, then MM BIO-5 will be applied. Species-specific buffer requirements and avoidance measure are detailed in Impact BIO-2 of the PSA checklist as well as Attachment C: Biological Resources Species List and Analysis.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior and During	SMRCD/CSP	SMRCD/CSP

Mitigation Measures	Applicable? (Y/N)	Timing	Implementing Entity	Verifying/Monitoring Entity
As the science evolves, other feasible methods or technologies to sequester carbon could be incorporated, such as conservation burning, a technique for burning woody material that reduces the production of smoke particulates and carbon released into the atmosphere and generates more biochar. Biochar is produced from the material left over after the burn and spread with compost to increase soil organic matter and soil carbon sequestration. Technologies to reduce greenhouse gas emissions may also include portable units that perform gasification to produce electricity or pyrolysis that produces biooil that can be used as liquid fuel and/or syngas that can be used to generate electricity. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.				
Project Specific Implementation: This project proposes prescribed burning, therefore, GHG emission reduction techniques will be implemented during prescribed burning and the methods will be documented in the Burn Plan.				
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.	Initial Treatment: Y Treatment Maintenance: Y	Prior	SMRCD/CSP	SMRCD/CSP
Project Specific Implementation: The project proponent conducted a pre-operational search to determine that there are not any known sites to have been previously used, stored, or disposed of hazardous materials within the project area.				

5.0 Environmental Review Process

The Project Proponent followed the evaluation and reporting process outlined in the PSA and required under the CalVTP.

On August 10, 2022 the Project Proponent submitted to CAL FIRE the required information regarding this project when it began preparing the PSA. The submittal included:

- GIS data that included project location (as a point);
- project size;
- planned treatment types and activities; and
- contact information for a representative of the project proponent.

Upon adoption of these findings and approval of the project, Project Proponent will submit this completed PSA and associated geospatial data to CAL FIRE at the time a Notice of Determination is filed. The submittal will include the following:

- The completed PSA Environmental Checklist;
- The 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)

As required under the CalVTP, Project Proponent will submit the following information to CAL FIRE after implementation of the 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; and
  - 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.

Record of Proceedings

In accordance with Public Resources Code Section 21167, subdivisionion (e), the record of proceedings for the Project Proponent's decision to approve the vegetation treatment project under the CalVTP includes the following documents at a minimum:

- The certified Final PEIR for the CalVTP, including the Draft PEIR, responses to comments on the Draft PEIR, and appendices;

- All recommendations and findings adopted by the Board in connection with the CalVTP and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the treatment project prepared by the Project Proponent, consultants to the Project Proponent, or responsible or trustee agencies with respect to the Project Proponent's compliance with the requirements of CEQA and with respect to the Project Proponent's action on the CalVTP;
- Matters of common knowledge to the Project Proponent, including but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in these findings, in addition to those cited above; and
- Any other materials required for the record of proceedings by Public Resources Code section 21167.6, subdivision (e).

Pursuant to CEQA Guidelines section 15091, subdivision (e), the documents constituting the record of proceedings are available for review during normal business hours at 303 Big Trees Park Road, Felton, California. The custodian of these documents is Tim Hyland, Senior Environmental Scientist.

Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program (MMRP) was adopted by the Board for the CalVTP, and the applicable mitigation measures for this treatment project have been identified in the PSA. The Project Proponent will use the MMRP to track compliance with the CalVTP mitigation measures. The MMRP will remain available for public review during the compliance period. The Final MMRP is attached to and is approved in conjunction with the approval of the treatment project and adoption of these Findings.

Findings for Determinations of Less Than Significant

The Project Proponent has reviewed and considered the information in the Final PEIR for the CalVTP addressing potential environmental effects, proposed mitigation measures, and alternatives. The Project Proponent, relying on the facts and analysis in the Final PEIR and the treatment project PSA, which were presented to the California Department of Parks and Recreation and reviewed and considered prior to any approvals, concurs with the conclusions of the Final PEIR and the treatment project PSA regarding the potential environmental effects of the CalVTP and the treatment project.

The Project Proponent concurs with the conclusions in the Final PEIR and treatment project PSA that all of the following impacts will be less than significant:

Aesthetics and Visual Resources

- Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities
- Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types

Agricultural and Forestry Resources

- 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

Air Quality

- Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk
- Impact AQ-3: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk
- Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust

Archaeological, Historical, and Tribal Cultural Resources

- Impact CUL-1: Cause a Substantial Adverse Change in the Significance of Built Historical Resources
- Impact CUL-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource
- Impact CUL-4: Disturb Human Remains

Biological Resources

- Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife
- Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources
- Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan

Geology, Soils, and Mineral Resources

- Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil
- Impact GEO-2: Increase Risk of Landslide

Greenhouse Gas Emissions

- Impact GHG-1: Conflict with Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of GHGs

Energy Resources

- Impact ENG-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy

Hazardous Materials, Public Health and Safety

- Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials
- Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides

Hydrology and Water Quality

- Impact HYD-1: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Prescribed Burning
- Impact HYD-2: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Manual or Mechanical Treatment Activities
- Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory

- Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Ground Application of Herbicides
- Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area

Land Use and Planning, Population and Housing

- Impact LU-1: Cause a Significant Environmental Impact Due to a Conflict with a Land Use Plan, Policy, or Regulation
- Impact LU-2: Induce Substantial Unplanned Population Growth

Noise

- Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation
- Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities

Recreation

- Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas

Transportation

- Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures
- Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses

Public Services, Utilities, and Service Systems

- Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs
- Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste

Wildfire

- Impact WIL-1: Substantially Exacerbate Fire Risk and Expose People to Uncontrolled Spread of a Wildfire
- Impact WIL-2: Expose People or Structures to Substantial Risks Related to Post-Fire Flooding or Landslides

Cumulative

- Agriculture and Forestry Resources
- Biological Resources
- Geology, Soils, Paleontology, and Mineral Resources
- Energy Resources
- Hazardous Materials, Public Health and Safety
- Hydrology and Water Quality
- Population and Housing
- Noise
- Recreation
- Wildfire

6.0 Significant Effects and Mitigation Measures

The PEIR identified a number of significant and potentially significant environmental effects (or impacts) that the CalVTP will contribute to or cause. The Board determined that some of these significant effects can be fully avoided through the application of feasible mitigation measures. Other effects, however, cannot be avoided by the adoption of feasible mitigation measures or alternatives and thus will be significant and unavoidable. For reasons set forth in Section 10.2 of the Board's Findings and Statement of Overriding Considerations, however, the Board determined that overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the CalVTP.

The Board adopted the findings required by CEQA for all direct and indirect significant impacts. The findings provided a summary description of each impact, described the applicable mitigation measures identified in the PEIR and adopted by the Board, and stated the Board's findings on the significance of each impact after imposition of the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the Final PEIR; and the Board incorporated by reference into its findings the discussion in those documents supporting the Final PEIR's determinations. In making those findings, the Board ratified, adopted, and incorporated into the findings the analyses and explanations in the Draft PEIR and Final PEIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions were specifically and expressly modified by the findings.

Not every individual treatment project will have all of the significant environmental impacts that the CalVTP was determined to contribute to or cause. Additionally, some of the environmental impacts predicted by the CalVTP PEIR to be significant and unavoidable or less than significant after mitigation may be determined in a PSA to be less severe for an individual treatment project than determined in the statewide PEIR. The impacts and mitigation measures identified in Sections 8.1 and 8.2 below reflect the conclusions of the PSA by indicating which of the CalVTP's impacts that this treatment project will contribute to or cause. By indicating the project-specific effects of this treatment project as follows, the Project Proponent's decisionmaker or decision making body is hereby making the required findings under CEQA regarding the application or feasibility of mitigation measures to reduce those impacts.

Findings for Impacts Mitigated to Less Than Significant

The Project Proponent finds that changes or alterations have been required in, or incorporated into, the treatment project which avoid or substantially lessen the significant environmental effects indicated below, as identified in the Final PEIR and the PSA. Implementation of the mitigation measures indicated below to be applicable to the treatment project, which have been required or incorporated into the project, will reduce these impacts to a less than significant level. The Project Proponent hereby directs that these mitigation measures be adopted.

Biological Resources

☒ Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications

- ☒ Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA
- ☒ Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA
- ☐ Mitigation Measure BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants

☒ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Tree-Nesting and Cavity-Nesting Wildlife)

- [x] 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)
- [x] Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- [ ] Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- [x] Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- [ ] Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- [ ] Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

- [ ] Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Shrub-Nesting Wildlife)
  - [ ] 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)
  - [ ] Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
  - [ ] Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
  - [ ] Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)
  - [ ] Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
  - [ ] Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
  - [ ] Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

- [x] Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Ground-Nesting Wildlife)
  - [ ] 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)
  - [x] Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
  - [ ] Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
  - [x] Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
  - [ ] Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

☒ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Burrowing and Denning Wildlife)

- ☐ 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)
- ☒ Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- ☐ Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- ☒ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

☒ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Insects and Other Terrestrial Invertebrates)

- ☒ 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)
- ☒ Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- ☐ Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- ☐ Mitigation Measure BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities)
- ☐ Mitigation Measure BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities)
- ☐ Mitigation Measure BIO-2f: Avoid Habitat for Special-Status Beetles, Flies, Grasshoppers, and Snails (All Treatment Activities)
- ☒ Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities)
- ☒ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

☒ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Bats)

- ☐ 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)
- ☒ Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- ☐ Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- ☒ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

☐ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Ungulates)

- ☐ 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)
- ☐ Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- ☐ Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- ☐ Mitigation Measure BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (Prescribed Herbivory)
- ☐ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

☐ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Fish and Aquatic Invertebrates (in wetlands, vernal pools))

- ☐ 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)
- ☐ Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- ☐ Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- ☐ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands

- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- ☐ Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands

☒ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Amphibians and Reptiles (in wetlands, vernal pools, associated riparian))

- ☒ 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)
- ☒ Mitigation Measure BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)
- ☐ Mitigation Measure BIO-2c: Compensate for Mortality, Injury, or Disturbance and Loss of Habitat Function for Special-Status Wildlife if Applicable (All Treatment Activities)
- ☒ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat
- ☒ Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands

☒ Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function

- ☒ Mitigation Measure BIO-3a: Design Treatments to Avoid Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3b: Compensate for Loss of Sensitive Natural Communities and Oak Woodlands
- ☐ Mitigation Measure BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat

☒ Impact BIO-4: Substantially Affect State or Federally Protected Wetlands

- ☒ Mitigation Measure BIO-4: Avoid State and Federally Protected Wetlands

☒ Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries

- ☒ Mitigation Measure BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites

Hazardous Materials, Public Health and Safety

☐ Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites

- ☐ Mitigation Measure HAZ-3: Identify and Avoid Known Hazardous Waste Sites

Findings for Significant and Unavoidable Impacts

The CalVTP PEIR determined that some impacts of the program would be significant and unavoidable, even after implementation of all feasible mitigation. The Project Proponent finds that the treatment project would contribute to or cause the following significant and unavoidable impacts as indicated. Incorporating and implementing the following mitigation measures indicated to be applicable to the treatment project will reduce the severity of this impact, but not to a less-than-significant level. The Project Proponent hereby directs that these mitigation measures be adopted. The Project Proponent therefore finds that changes or alterations have been required in, or incorporated into, the treatment project that will substantially lessen, but not avoid, the significant environmental effect as identified in the PEIR and PSA.

The Project Proponent finds that fully mitigating these impacts are not feasible; there are no feasible mitigation measures beyond the mitigation measures indicated below to reduce these impacts. [Alternative to preceding sentence: The Project Proponent has reviewed any suggested mitigation measures and finds these suggestions infeasible.] These impacts will remain significant and unavoidable. The Project Proponent concludes, however, that the benefits of the CalVTP and the vegetation treatment project outweigh the significant unavoidable impacts of the Program and treatment project, as set forth in the Board's Statement of Overriding Considerations the Project Proponent's own Statement of Overriding Considerations, if any].

Aesthetics and Visual Resources

☒ Impact AES-3: Result in long-term substantial degradation of a scenic vista or visual character or quality of public views, or damage to scenic resources in a state scenic highway from the non-shaded fuel break treatment type

- ☒ Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks

Air Quality

☒ Impact AQ-1: Generate Emissions of Criteria Air Pollutants and Precursors During Treatment Activities that Would Exceed CAAQS Or NAAQS and Conflict with Regional Air Quality Plans

- ☒ Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques

☒ Impact AQ-4: Expose People to Toxic Air Contaminants Emitted by Prescribed Burns and Related Health Risk

- ☒ No feasible mitigation is available.

☒ Impact AQ-6: Expose People to Objectionable Odors from Smoke During Prescribed Burning

- ☒ No feasible mitigation is available.

Archaeological, Historical, and Tribal Cultural Resources

☒ Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources

- ☒ Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources

Biological Resources

☒ Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications (Insects and Other Terrestrial Invertebrates - Bumble Bees)

☒ Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment activities)

Greenhouse Gas Emissions

☒ Impact GHG-2: Generate GHG Emissions through Treatment Activities

☒ Mitigation Measure GHG-2: Implement GHG Emission Reduction Techniques During Prescribed Burns

Transportation

☒ Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP

☒ No feasible mitigation is available.

Public Services, Utilities and Service Systems

☒ Impact UTIL-2: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity

☒ No feasible mitigation is available.

Cumulative

Aesthetics

☒ Cumulative Aesthetics Impact related to Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway

☒ Mitigation Measure AES-3: Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks

Air Quality

☒ Cumulative Air Quality Impact related to On-Road Vehicle and Off-Road Equipment Exhaust Emissions

☒ Mitigation Measure AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques

Archaeological, Historical, and Tribal Cultural Resources

☒ Cumulative Archaeological, Historical, and Tribal Cultural Resources Impact related to Inadvertent Discoveries of Unique Archaeological Resources

☒ Mitigation Measure CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources

Biological Resources

☒ Cumulative Biological Resources Impact related to Bumble Bees

☒ Mitigation Measure BIO-2g: Design Treatment to Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Special-Status Bumble Bees (All Treatment Activities)

Transportation

☒ Cumulative Transportation Impact related to Vehicle Miles Travelled

☒ No feasible mitigation is available.

Public Services, Utilities and Service Systems

☒ Cumulative Public Services, Utilities, and Service Systems Impact related to Disposal of Biomass

☒ No feasible mitigation is available.

Statement of Overriding Consideration

As set forth in the Board's adopted Findings, the Board determined that the CalVTP will result in significant adverse environmental effects that cannot be avoided even with the adoption of all feasible mitigation measures, and there are no feasible project alternatives that would mitigate or substantially lessen the impacts. Despite these effects, however, the Board, in accordance with CEQA Guidelines Section 15093, chose to approve the CalVTP because, in its view, the benefits to life, property, and other resources, and the other benefits of the CalVTP, will render the significant effects acceptable.

In the Board's judgment, the CalVTP and its benefits outweigh its unavoidable significant effects. The Board's Findings were based on substantial evidence in the record. The Board's Statement of Overriding Considerations identified the specific reasons why, in the Board's judgment, the benefits of the CalVTP as approved outweigh its unavoidable significant effects.

Exercising its independent judgment and review, the Project Proponent concurs that the benefits of the CalVTP and the treatment project outweigh the significant environmental effects and hereby incorporates by reference and adopts the Board's Statement of Overriding Considerations for the CalVTP.

Any one of the reasons listed in the Statement of Overriding Considerations is sufficient to justify approval of the treatment project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the Project Proponent would stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this section, and the documents found in the Record of Proceedings, which are described and defined in Section 5, above.

- The CalVTP will reduce dire risks to life, property, and natural resources in California.
- The CalVTP reflects the most current and commonly accepted science and conditions in California and allows for adaptation in response to potential evolution and changes in science and conditions.
- The CalVTP reflects the Board's and CAL FIRE's goals. The CalVTP will help the Board and CAL FIRE achieve their central goals for reducing and preventing the impacts of fire in the state, as outlined in the *2018 Strategic Fire Plan for California*. The CalVTP will help to establish a natural environment that is more resilient and built assets that are more resistant to the occurrence and effects of wildland fire.
- The CalVTP will help implement Executive Orders, including:
  - EO B-42-17: Governor Brown's order issued to bolster the state's response to unprecedented tree die-off through further expediting removal of millions of dead and dying trees across the state;
  - EO B-52-18: Governor Brown's order to improve forest management and restoration, provide regulatory relief, and reduce barriers for prescribed fire; and
  - EO N-05-19: Governor Newsom's order directing CAL FIRE to recommend immediate-, medium-, and long-term actions to help prevent destructive wildfires.
- The Board is required by law to comply with SB 1260, signed into law by Governor Brown in February 2018, which improves California forest management practices to reduce the risk of wildfire in light of the changing climate and includes provisions for the CalVTP PEIR to serve as the programmatic CEQA coverage for prescribed burns within the SRA. The CalVTP will bring the Board into compliance with these requirements.
- The Board is required by law to comply with SB 632, signed into law by Governor Newsom in October 2019, which requires the Board to certify a Final PEIR, pursuant to CEQA, for the vegetation treatment

program filed with the State Clearinghouse under Number 2019012052 in January 2019. The CalVTP will bring the Board into compliance with this requirement.

- The CalVTP will help to meet California's GHG emission goals consistent with the California Forest Carbon Plan, California's 2017 Climate Change Scoping Plan, Fire on the Mountain: Rethinking Forest Management in the Sierra Nevada, and California 2030 Natural and Working Lands Climate Change Implementation Plan.

Attachment A – Project-Specific Review and Survey Guidance for Biological Resources

The following presets a stepwise guide for using the PEIR to determine the potentially affected resources in a project treatment area and the applicable SPRs and mitigation measures.

1) Pre-Treatment Review

a. Determine the ecoregion in which the treatment area is located.

i. Reference Figure 3.6-1
Special-Status Species

b. Determine which special-status plants, wildlife, and fish may be present within the ecoregion.

i. Refer to Appendix BIO-3

1. Central California Coast
    a. Table 1a: Special-Status Plants
    b. Table 1b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
2. Central California Coast Ranges
    a. Table 2a: Special Status Plants
    b. Table 2b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
3. Colorado Desert
    a. Table 3a: Special-Status Plants
    b. Table 3b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
4. Great Valley
    a. Table 4a: Special-Status Plants
    b. Table 4b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
5. Klamath Mountains
    a. Table 5a: Special-Status Plants
    b. Table 5b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
6. Modoc Plateau
    a. Table 6a: Special-Status Plants
    b. Table 6b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
7. Mojave Desert
    a. Table 7a: Special-Status Plants
    b. Table 7b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
8. Mono
    a. Table 8a: Special-Status Plants
    b. Table 8b: Special-Status Wildlife

c. Table 19: Special-Status Fish

9. Northern California Coast
    a. Table 9a: Special-Status Plants
    b. Table 9b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
10. Northern California Coast Ranges
    a. Table 10a: Special-Status Plants
    b. Table 10b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
11. Northern California Interior Coast Ranges
    a. Table 11a: Special-Status Plants
    b. Table 11b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
12. Northwestern Basin and Range
    a. Table 12a: Special-Status Plants
    b. Table 12b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
13. Sierra Nevada
    a. Table 13a: Special-Status Plants
    b. Table 13b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
14. Sierra Nevada Foothills
    a. Table 14a: Special-Status Plants
    b. Table 14b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
15. Southeastern Great Basin
    a. Table 15a: Special-Status Plants
    b. Table 14b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
16. Southern California Coast
    a. Table 16a: Special-Status Plants
    b. Table 16b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
17. Southern California Mountains and Valleys
    a. Table 17a: Special-Status Plants
    b. Table 17b: Special-Status Wildlife
    c. Table 19: Special-Status Fish
18. Southern Cascades
    a. Table 18a: Special-Status Plants
    b. Table 18b: Special-Status Wildlife
    c. Table 19: Special-Status Fish

ii. Obtain an updated review of CNDDB and CNPS databases, relevant Biogeographic Information and Observation System (BIOS) queries, and relevant general and regional plans by a qualified RPF or biologist.

Wetlands, Waters of the United States or State, Riparian Habitat, Sensitive Natural Communities

c. Determine whether there are wetlands or other aquatic resources within the ecoregion, and how many acres of each is present.
   i. All ecoregions - Table 3.6-2
d. Determine which habitat types and sensitive natural communities are present within the ecoregion, and how many acres of each is present.
   i. Central California Coast – Table 3.6-3
   ii. Central California Coast Ranges – Table 3.6-5
   iii. Colorado Desert – Table 3.6-7
   iv. Great Valley – Table 3.6-9
   v. Klamath Mountains – Table 3.6-11
   vi. Modoc Plateau – Table 3.6-12
   vii. Mojave Desert – Table 3.6-13
   viii. Mono – Table 3.6-15
   ix. Northern California Coast – Table 3.6-16
   x. Northern California Coast Ranges – Table 3.6-18
   xi. Northern California Interior and Coast Ranges – Table 3.6-20
   xii. Northwestern Basin and Range – Table 3.6-21
   xiii. Sierra Nevada – Table 3.6-22
   xiv. Sierra Nevada Foothills – Table 3.6-24
   xv. Southeastern Great Basin – Table 3.6-26
   xvi. Southern California Coast – Table 3.6-27
   xvii. Southern California Mountains and Valleys – Table 3.6-29
   xviii. Southern Cascades- Table 3.6-31
e. Review descriptions of each CWHR habitat type.
   i. All ecoregions - Appendix BIO-1

Habitat Conservation Plans, Local Plans, and Policies

f. Identify Habitat Conservation Plans within the Ecoregion
   i. Central California Coast – Table 3.6-4
   ii. Central California Coast Ranges – Table 3.6-6
   iii. Colorado Desert – Table 3.6-8
   iv. Great Valley – Table 3.6-10
   v. Mojave Desert – Table 3.6-14
   vi. Northern California Coast – Table 3.6-17
   vii. Northern California Coast Ranges – Table 3.6-19
   viii. Sierra Nevada – Table 3.6-23
   ix. Sierra Nevada Foothills – Table 3.6-25
   x. Southern California Coast – Table 3.6-28
   xi. Southern California Mountains and Valleys – Table 3.6-30
g. Identify Local Plans and Policies Pertaining to Biological Resources within the Ecoregion
   i. The PEIR assumes that any vegetation treatments proposed by local agencies under the CalVTP would be consistent with local plans, policies, and ordinances as outlined in SPR-AD-3. The PEIR

does not discuss specific local plans, policies, or ordinances; thus, determining relevant plans, policies, or ordinances would be the responsibility of the project proponent.

2) Reconnaissance-Level Survey of Treatment Area

A qualified RPF or biologist will conduct a reconnaissance-level survey for biological resources within the treatment area, focusing on the following resource areas:

a. Potential habitat for special-status wildlife and plants;
b. Riparian habitat or other sensitive natural communities;
c. State or federally protected wetlands; and
d. Potential wildlife nursery sites.

3) Focused or Protocol-level Surveys of Treatment Area (Where Protocol Exists)

If the qualified RPF or biologist determines that a special-status plant or wildlife species, riparian habitat, other sensitive natural community, or state or federally protected wetlands may be present based on the presence of suitable habitat, a focused or protocol-level survey for the resource will be conducted.

4) Determine Potential Impact Mechanisms and Relevant Mitigation Measures for Sensitive Biological Resources Determined to Be Present of Likely to Be Present

a. Special-Status Plants
    i. Refer to Impact BIO-1
        1. Refer to the relevant treatment activity(ies)
b. Special-Status Wildlife
    i. Group special-status wildlife determined to be present or likely to occur by life history characteristics.
        1. Refer to Impact BIO-2: Table 3.6-32
    ii. Determine potential residual impact for each life history group after implementation of SPRs.
        1. Refer to Impact BIO-2: Table 3.6-33
    iii. Refer to the relevant treatment activity(ies)
c. Riparian Habitat and Other Sensitive Natural Communities
    i. Refer to Impact BIO-3
        1. Refer to the relevant treatment activity(ies)
d. State or Federally Protected Wetlands
    i. Refer to Impact BIO-4
e. Wildlife Movement Corridors or Wildlife Nurseries
    i. Refer to Impact BIO-5

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