Humboldt County
RESOURCE CONSERVATION DISTRICT

PHONE: 707.442.6058 x 5

5630 S. BROADWAY STREET
EUREKA, CA 95503

HUMBOLDTRCD.ORG

Project Specific Analysis and Addendum to the CalVTP PEIR

Marshall Prescribed Fire Project

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CalVTP ID: 2023-10

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Project Specific Analysis and Addendum

Prepared for:

The Humboldt County Resource Conservation District
Contact:
Jill Demers – Executive Director – jillhcrcd@gmail.com

In Collaboration With:

The Mattole Restoration Council
Contact:
Sarah Vroom -- Executive Director – vroom@mattole.org

Prepared By:

Baldwin, Blomstrom, Wilkinson, and Associates Inc.
494 H Street
Arcata, CA 95521

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1.0 PROJECT SPECIFIC ANALYSIS/ADDENDUM

1.1 Introduction

The Marshall Prescribed Burn Project (Project) consists of ecological restoration and wildland-urban interface (WUI) fuel reduction treatment types to restore encroached oak woodlands and address fuel accumulation through thinning and prescribed burning. The project area encompasses 109.3 acres in southwestern Humboldt County, north of the community of Honeydew. The project is located entirely on one parcel of private land.

Over the past two decades, communities across California have become increasingly affected by wildfire. Factors leading to these conditions include the ban of cultural burning since the late 1800s, fire exclusion over the last 100 years, a lack of vegetation management, climate change, successive periods of drought, and substantial development in the WUI. These factors have resulted in overstocked forests and high fuel loading, in turn creating dangerous conditions for wildfire ignition.

These factors have contributed to substantial changes in forested landscapes across Humboldt County, which have experienced over one hundred years of fire suppression and a climate that is becoming warmer and drier. Compounding these effects are a suite of related ecological feedbacks, including conifer species displacing hardwoods and other fire resilient native plant species. This has reduced overall biodiversity and is affecting the suitability of these habitats for rare and special-status wildlife and plants. In addition, altered fire regimes and increased fuel loads are driving larger and more catastrophic wildfires. As a result, these systems have undergone unsustainable structural and compositional changes at the ecosystem level that require environmentally sensitive landscape-level treatments to redirect the effects of changing climatic and ecological conditions.

In August of 2022, the Mattole Restoration Council (MRC) was awarded a CAL FIRE Business and Workforce Development grant to coordinate training opportunities (S-212 saw trainings and prescribed fire training exchanges (TREX)) to increase local capacity to implement forest restoration and prescribed fire treatments. The training plan detailed in the grant is consistent with the following objectives identified in California's Wildfire and Forest Resilience Action Plan:

- Goal 1: Increase the Pace and Scale of Forest Health Projects
    - Accelerate Restoration Across All Land
        - Training capable sawyers and prescribed fire practitioners
    - Increase Prescribed Fire
        - TREX and additional prescribed fire training opportunities to increase local capacity to implement "good fire" with more prescribed fire practitioners
- Goal 2: Strengthen Protection of Communities
    - Increase Fuel Breaks
        - More sawyers to work on fuels reduction crews
    - Protect Wildfire-Prone Homes and Neighborhoods
        - More sawyers to work on defensible space projects
    - Create Fire-Safe Roadways
        - More sawyers to work on roadside fuels reduction projects

Within the Marshall Prescribed Burn Project, treatments are designed by the MRC to meet the following goals:

- Provide a long-term site for prescribed fire training events (TREX).
- Establish healthy, resilient, fire-adapted ecosystems to protect and conserve natural resources.
- Protect upper watersheds where important water supplies originate.
- Promote the long-term storage of carbon and reduce the severity of catastrophic wildfire, thereby increasing community and forest ecosystem protection.
- Improve habitat for native perennial bunchgrasses.
- Improve acorn harvest potential.

The proposed Project comes after a 2017 United States Fish and Wildlife Service Partners for Fish and Wildlife program that treated 10 acres of encroaching Douglas fir in a 32 acre oak woodland on the property. In addition, this project implements components of the MRC's landscape-scale wildfire resilience, prescribed fire, and forest health program.

MRC does not anticipate that it would treat every acre within the 109.3-acre Project area. The purpose of a more expansive project area is to facilitate consideration of strategic treatment locations among adjacent large and small landowners in upcoming planning efforts such as updated Unit Fire Plans, Community Wildfire Prevention Plans, or other strategic planning efforts. The area encompassed in this PSA can act as a datum of permitted landscape from which adjacent project opportunities and collaborations can be created to increase the health and safety of the forest and the communities that surround it.

Information related to the CalVTP is available at: https://bof.fire.ca.gov/projects-and-programs/calvtp/. This website contains links to:

- the CalVTP PEIR, referenced throughout this document;
- information on how to use CalVTP to streamline CEQA review of vegetation treatment projects; and
- the CalVTP Database webpage for data related to proposed, approved, and completed projects under the CalVTP.

1.2 Roles

This document provides the basis for CEQA compliance for the implementation of vegetation treatments that require a discretionary action by a state or local agency. This document is being prepared for Humboldt County Resource Conservation District (HCRCD) to comply with CEQA for the implementation of vegetation treatments that require a discretionary action by a state or local agency. The HCRCD is the CEQA lead agency. As defined in the CalVTP PEIR, a project proponent is a public agency that provides funding for vegetation treatment or has land ownership, land management, or other regulatory responsibility in the treatable landscape and is seeking to fund, authorize, or implement vegetation treatments consistent with the CalVTP. The PEIR contemplated that the primary discretionary approval of the public agency project proponent would be implementing the treatments, associated standard project requirements (SPRs), and mitigation measures. However, for this proposed project, the HCRCD's role is to serve as the CEQA lead and MRC will be implementing treatments and associated SPRs and mitigation measures. Therefore, as used in this PSA/Addendum, unless otherwise noted, ***the MRC is the project proponent.***

1.3 Purpose of this PSA/Addendum

The PSA/Addendum evaluates whether the proposed treatments would be within the scope of the CalVTP PEIR. As stated above, the treatment types and treatment activities are consistent with the CalVTP. Among the other criteria for determining whether a treatment project is within the scope of the CalVTP PEIR is whether it is within the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the PEIR). If a proposed vegetation treatment project is covered by the evaluation of environmental effects in the PEIR, it may be approved by a lead or responsible agency using a finding that the project is within the scope of the PEIR for its CEQA compliance, consistent with CEQA Guidelines Section 15168(c)(2).

An Addendum to an EIR is appropriate where a previously certified EIR has been prepared and some changes or revisions to the project are proposed, or the circumstances surrounding the project have changed, but none of the changes or revisions would result in new or substantially more severe significant environmental impacts, consistent with CEQA Section 21166 and CEQA Guidelines Sections 15162, 15163, 15164, and 15168. In this case, there are no changed circumstances, but the proposed revisions or changes in the project, compared to the PEIR, are the inclusion of areas outside of the CalVTP treatable landscape, and revisions to SPRs and MM BIO-2g, which are integrated into the Program itself.

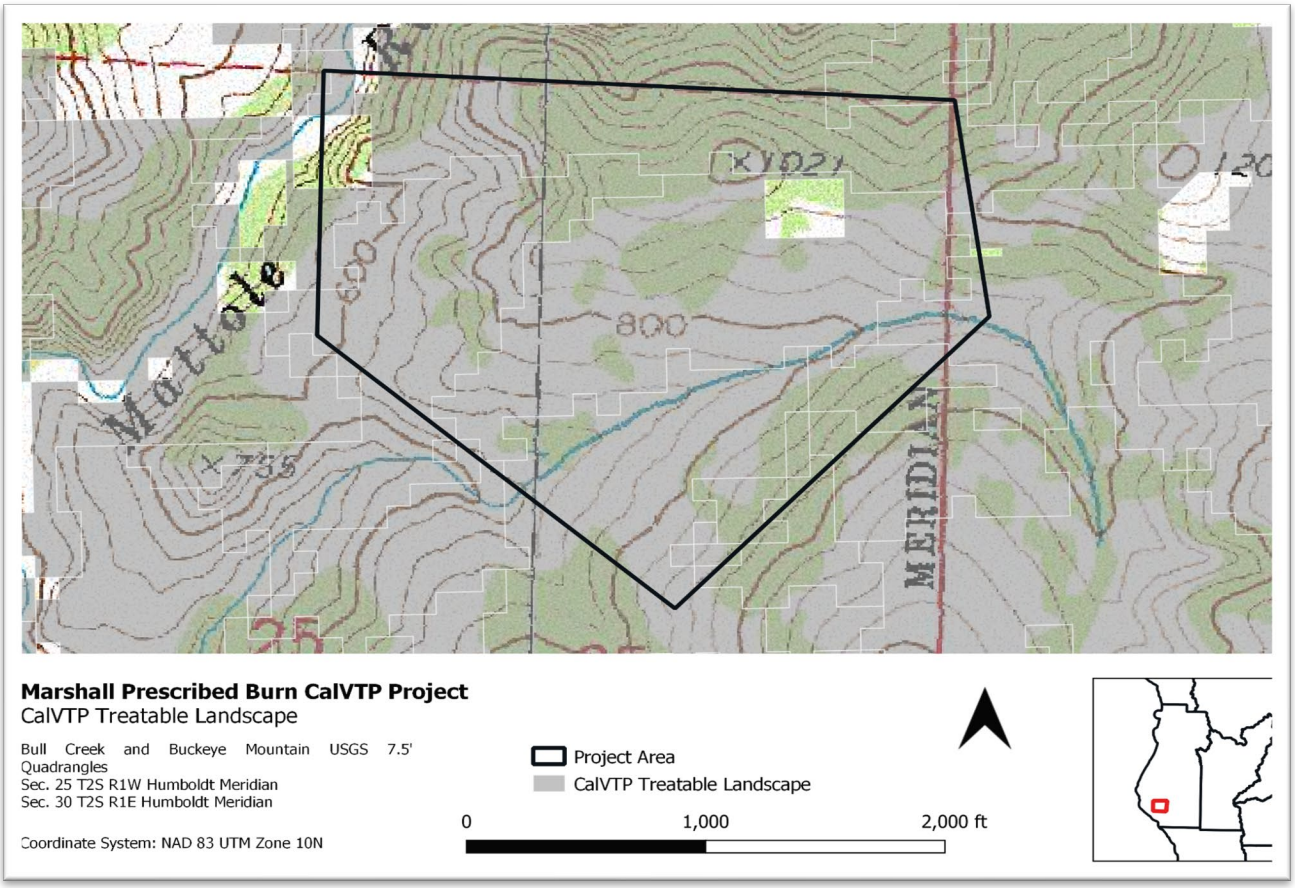


Figure 1. Map of CalVTP Treatable Landscape within Project Area.

This document serves as both a PSA and an Addendum to the CalVTP PEIR for HCRCD review and analysis under CEQA for the treatments proposed by the Mattole Restoration Council. MRC will provide environmental information to the HCRCD in its consideration of the approval of treatments proposed to be implemented using the CAL FIRE Business and Workforce Development grant funding and for other state and local agencies serving in the role

of responsible agency with discretionary approvals for future treatments to use this PSA/Addendum for CEQA compliance. This PSA/Addendum and attachments together support the finding that the proposed project is within the scope of the CalVTP PEIR. Each resource topic below includes a discussion of impacts related to that resource area followed by discussions of SPRs and mitigation measures that are applicable for avoiding, minimizing, and mitigating impacts for that resource area. Supplemental analysis and information supporting the impact discussions can be found in the corresponding attachments. A within the scope of the PEIR finding requires the following components:

- Description of the impact of the proposed treatment project (see impact discussions under Sections 3.1 EC through 3.16 EC and Attachment B – Biological Resources)
- Summary of the impact in the CalVTP PEIR (see impact discussions under Sections 3.1 EC through 3.16 EC)
- Evidence the project impact is addressed by the PEIR (see impact discussions under Sections 3.1 EC through 3.16 EC and Attachment B – Biological Resources)
- CalVTP SPRs and MMs applicable to the proposed project (see SPR and MM discussions under Sections 3.1 EC through 3.16 EC and Attachment A – Standard Project Requirements and Mitigation Measures)
- Conclusion regarding consistency with the PEIR (see impact discussions under Sections 3.1 EC through 3.16 EC below)

MITIGATION MONITORING AND REPORTING PROGRAM

This PSA/Addendum also serves as a mitigation monitoring and reporting program (MMRP) in accordance with CEQA and the State CEQA Guidelines (Public Resources Code Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097). A MMRP is required for approval of the proposed project because this PSA/Addendum identifies potential significant adverse impacts and all feasible mitigation measures have been adopted. SPRs, which are environmental protection features included as part of the project description, have been incorporated to avoid or minimize adverse effects. Where potentially significant impacts remain after application of SPRs, mitigation measures have been identified to further reduce and/or compensate for those impacts. The numbering of SPRs and mitigation measures follows the numbering used in the PEIR. 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 all cases, the additional project-specific implementation instruction and clarifying edits to the SPRs and mitigation measures maintain the SPRs and mitigation measures as equivalent or more effective than those presented in the PEIR. The MMRP requirements covered in this PSA/Addendum are described below.

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

This MMRP will be adopted by the HCRCD. As this PSA/Addendum is used for CEQA compliance of future discretionary approvals by other state and local agencies related to

treatments in the Project area, those agencies will adopt separate MMRPs that specify the SPRs and mitigation measures relevant to their approval and within their jurisdiction. In coordination with the lead or responsible agency (HCRCD), MRC will document and describe the compliance of the project treatment work with the required SPRs and mitigation measures either by adapting a project-specific MMRP table or preparing a separate post-project implementation report pursuant to the requirements of SPR AD-7.

1.5 Proposed Revisions to CalVTP SPRs and Mitigation Measures

Project Area Outside the CalVTP Treatable Landscape
Among the criteria for determining if a treatment project is within the scope of the CalVTP PEIR is whether it is located in the CalVTP treatable landscape (i.e., the geographic extent of analysis covered in the PEIR). While most of the project area would be inside, portions of the project area would extend outside of the treatable landscape described in the CalVTP PEIR. In total, the areas outside the treatable landscape encompass approximately 3.7 acres of the 109.3-acre project area; they are dispersed in small sections of the project area (refer to Figure 2-1). If the areas of the proposed project outside of the CalVTP treatable landscape have essentially the same, or at least substantially similar, landscape conditions as the adjacent areas within the treatable landscape, the environmental analysis in the PEIR would be applicable.

Proposed Revisions to CalVTP SPRs and MMs
While the proposed treatment types and treatment activities are consistent with the CalVTP, the project proponent has deemed that certain requirements of CalVTP SPRs are infeasible, are not warranted to maintain the impact significance conclusions in the PEIR, and, if implemented as presented in the PEIR, would prevent the project proponent from meeting treatment objectives. Because SPRs are part of the CalVTP and are incorporated into the proposed vegetation treatments as a standard part of treatment design and implementation, revisions (beyond clarifying edits) would constitute a change to the CalVTP PEIR's description of later project activities.

The project proponent's proposed revisions to SPRs are described below. These proposed revisions would not result in any new or substantially more severe significant impacts on any of the resources evaluated in the PEIR and described in this PSA/Addendum. Evidence to explain this conclusion is presented under each applicable resource, as described below.

SPR AQ-3 Create Burn Plan
SPR AQ-3, as presented in the PEIR, requires preparation of a burn plan using the CAL FIRE burn plan template prior to prescribed burning treatment activities. Pursuant to SPR AQ-3, the burn plan will include a fire behavior model performed by a qualified fire behavior technical specialist, will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion, and will be created with input from a qualified technician or certified State burn boss. The project proponent proposes to prepare burn plans prior to prescribed burning activities using burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent (California PBA 2022). The CAL FIRE Prescribed Fire Guidebook provides the template and required elements of CAL FIRE burn plans: a description of the burn area; target weather conditions; hazards that may be encountered; personnel needs, safety, and contacts to make prior to burning; and short and long-term management goals (CAL FIRE 2019). The burn plan templates proposed to be used

by the project proponent contain all of these elements. In addition to these elements, the project proponent proposes to include elements in the burn plan that are required to obtain burn permits and any additional elements that are needed to design a burn that will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. This may, but is not required to, include outputs from fire behavior modeling programs. Potential impacts resulting from revisions to SPR AQ-3 are discussed below under Section 3.1, "Aesthetics and Visual Resources," Section 3.3, "Air Quality," Section 3.6, "Geology, Soils, Paleontology, and Mineral Resources," Section 3.7, "Greenhouse Gas Emissions," Section 3.10, "Hydrology and Water Quality," and Section 3.16, "Wildfire." As explained in these sections, the proposed revisions to SPR AQ-3 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. The proposed revisions to SPR AQ-3 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR AQ-6 Prescribed Burn Safety Procedures

SPR AQ-6, as presented in the PEIR, requires non-CAL FIRE crews to implement all safety procedures required of CAL FIRE crews. This includes implementation of an approved Incident Action Plan, and outlines the elements required in the Incident Action Plan. To maintain personnel and public safety, the project proponent proposes to prepare Incident Action Plans that include elements appropriate for the size and scope of the burn. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. All assigned personnel for a prescribed burn will be briefed to ensure personnel safety and convey prescribed fire objectives. Potential impacts resulting from revisions to SPR AQ-6 are discussed below under Section 3.3, "Air Quality." As explained in this section, the proposed revisions to SPR AQ-6 would not result in any new or substantially more severe significant impacts than were analyzed in the PEIR. The proposed revisions to SPR AQ-6 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR HAZ-3 Require Fire Extinguishers

SPR HAZ-3, as presented in the Program EIR, requires that tree cutting crews carry one fire extinguisher per chainsaw, and requires that each vehicle be equipped with the one long-handled shovel and one axe or Pulaski, consistent with Public Resources Code (PRC) Section 4428. The project proponent proposes to require tree cutting crews to carry one backpack pump type fire extinguisher filled with water and each vehicle to carry the required hand tools for firefighting, consistent with PRC Section 4428. This revision clarifies alignment of the measure with the requirements of PRC Section 4428 and is consistent with the purpose of SPR HAZ-3 to equip treatment crews with adequate firefighting tools to minimize the risk of wildfire during treatments. This revision would not reduce the effectiveness of the measure regarding addressing safety and wildfire. Potential impacts resulting from revisions to SPR HAZ-3 are discussed below under Section 3.16, "Wildfire." As explained in this section, the proposed revisions to SPR HAZ-3 would not result in any new or substantially more severe significant impacts than were analyzed in the Program EIR. The proposed revisions to SPR HAZ-3 are shown in underline and strikethrough in the MMRP (Attachment A).

SPR AD-4 Public Notifications for Prescribed Burning

SPR AD-4, as presented in the Program EIR, requires that at least 3 days prior to prescribed burning the project proponent post signs along the closest public roadway to the treatment area, publish a public interest notification in a local newspaper or other widely distributed media source, and send a notification letter to the local county supervisor describing the activity, its

necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. The project proponent proposes to post signs along the closest public roadway to the treatment area at least one day prior to the commencement of prescribed burning operations to encourage greater visibility due to increased sign theft associated with posting length. In addition, the project proponent would implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls at least three days prior to prescribed burning. The project proponent proposes these revisions to tailor SPR AD-4 to include public outreach mechanisms that are proven to be successful in their community. These revisions are consistent with the purpose of SPR AD-4 to make a good faith effort to notify the local community in advance of prescribed burning treatments. Potential impacts resulting from revisions to SPR AD-4 are discussed below under Section 3.1, "Aesthetics," and Section 3.3, "Air Quality." As explained in these sections, the proposed revisions to SPR AD-4 would not result in any new or substantially more severe significant impacts than were analyzed in the Program EIR. The proposed revisions to SPR AD-4 are shown in underline and strikethrough in the MMRP (Attachment A)

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

MM BIO-2g, as presented in the PEIR, requires that if special-status bumble bees are identified as occurring during reviews 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, then the Project Proponent will implement measures including limiting prescribed burning to October - February, dividing treatment areas into multiple treatment units, conducting treatments in patchy patterns, and not applying herbicides to flowering native plants during flight season (March through September). For species listed under CESA or ESA, the qualified RPF or biologist may consult with CDFW. Two bumble bee species, Western bumble bee and Crotch bumble bee, had historic ranges within the Marshall Project area. HCRCD provided evidence regarding the species' probabilities of occurrence within the Project area to CDFW and based on the evidence provided, sought CDFW's concurrence that 1) the Crotch and western bumble bee are unlikely to occur in the project area 2) that protocol-level surveys are not required and 3) that HCRCD's proposed revised MM BIO-2g is satisfactory. CDFW responded on June 28, 2023 and concurred that 1) the Crotch and western bumble bee are unlikely to occur in the project area 2) that protocol-level surveys are not required and 3) that HCRCD's proposed revised MM BIO-2g is satisfactory. The proposed revisions to MM BIO-2g are shown in underline and strikethrough in the MMRP (Attachment A). The revised MM BIO-2g includes the following:

No focused-level surveys are warranted as Crotch's bumble bee and western bumble bees are not expected to occur within the treatment area because it is outside the current range of both species. However, in an effort to improve the habitat for any future Crotch's bumble bees, western bumble bees, or other vulnerable bumble bees that may occupy the project area, the following Mitigation Measure is proposed:

1. The project would perform reconnaissance-level surveys prior to treatment per SPR BIO-1, and follow the original MM BIO-2g avoidance measures if listed bees are found.
2. No herbicide use is proposed in this project.
3. The project proponent will monitor post-burn areas and identify burn areas that are in need of supplemental native seed. These areas will be seeded with a native grass and forb seed mix in the fall or spring following grassland burning when adequate soil moisture is available for germination. Seeding specifications can be found in Tables 1

and 2.

Prescribed Fire (Broadcast Burn)

Broadcast burn treatments will generally occur in fall and winter as weather conditions allow. Invasive medusa head grass areas will require early summer burning. Broadcast burn areas will be seeded with a native seed mix detailed in **Table 1 (grassland broadcast burn) or Table 2 (oak woodland/forest understory broadcast/pile burn).** Seeding should take place in the spring following broadcast burning.

Prescribed Fire (Pile Burn)

Pile burn treatments will generally occur in the fall and winter as weather conditions allow. Pile burn areas will be seeded with a native seed mix detailed in **Table 2.** Seeding should take place in the spring following pile burning.

Table 1. Post grassland broadcast burn native seed mix and application rates.

TREATMENT	SPECIFICATIONS	APPLICATION RATE
Native Grass Seed Mix	Install seed on bare soils using the following ratios: Elymus glaucus (30%), Festuca californica (20%) Bromus sitchensis (10%), Stipa pulchra (10%), Deschampsia cespetosa (10%) Festuca idahoensis (10%) Danthonia california (10%). Broadcast by hand or ATV spreader, rake or harrow in.	30 lbs/acre
Native Forb Seed Mix	Install seed on bare soils using the following ratios: Achillea millefolium (5%), Acmispon americanus var. americanus (5%), Clarkia amoena (10%), Escholzia californica (20%), Lupinus bicolor (20%), Ranunculus occidentalis (10%) Sysyrinchium bellum (10%), Trifolium willdenovii (20%); Broadcast by hand or ATV spreader, rake or harrow in.	15 lbs/acre

Table 2. Post oak woodland/forest pile burn and understory broadcast burn seed mix and application rates.

TREATMENT	SPECIFICATIONS	APPLICATION RATE
Native Grass Seed Mix (pile and broadcast burn)	Install seed on bare soils using the following ratios: Elymus glaucus (30%), Bromus sitchensis (20%), Festuca californica (50%), Broadcast by hand or ATV spreader, rake or harrow in.	40 lbs/acre

1.6 Project Site and Location

The Project is located on a privately-owned parcel in southwestern Humboldt County, approximately two miles north of Honeydew and thirteen miles west of Highway 101 (Figure 2). It is within the Mattole River watershed on the east side of the King Range mountains, immediately adjacent to the Upper North Fork of the Mattole River. The legal location is within the Bull Creek and Buckeye Mountain USGS 7.5' quadrangles, portions of Sec. 25 T2S R1W Humboldt Meridian and Sec. 30 T2S R1E Humboldt Meridian. From the town of Honeydew, the Project is accessed by taking Mattole Road to Meaux Road. The project elevation ranges between 540' and 1021'. The total Project area evaluated in the PSA encompasses 109.3 acres, which is the entire privately-owned parcel. Initial treatments are proposed to occur on 35 acres. As funding becomes available in the future, additional treatments will be completed across the Project.

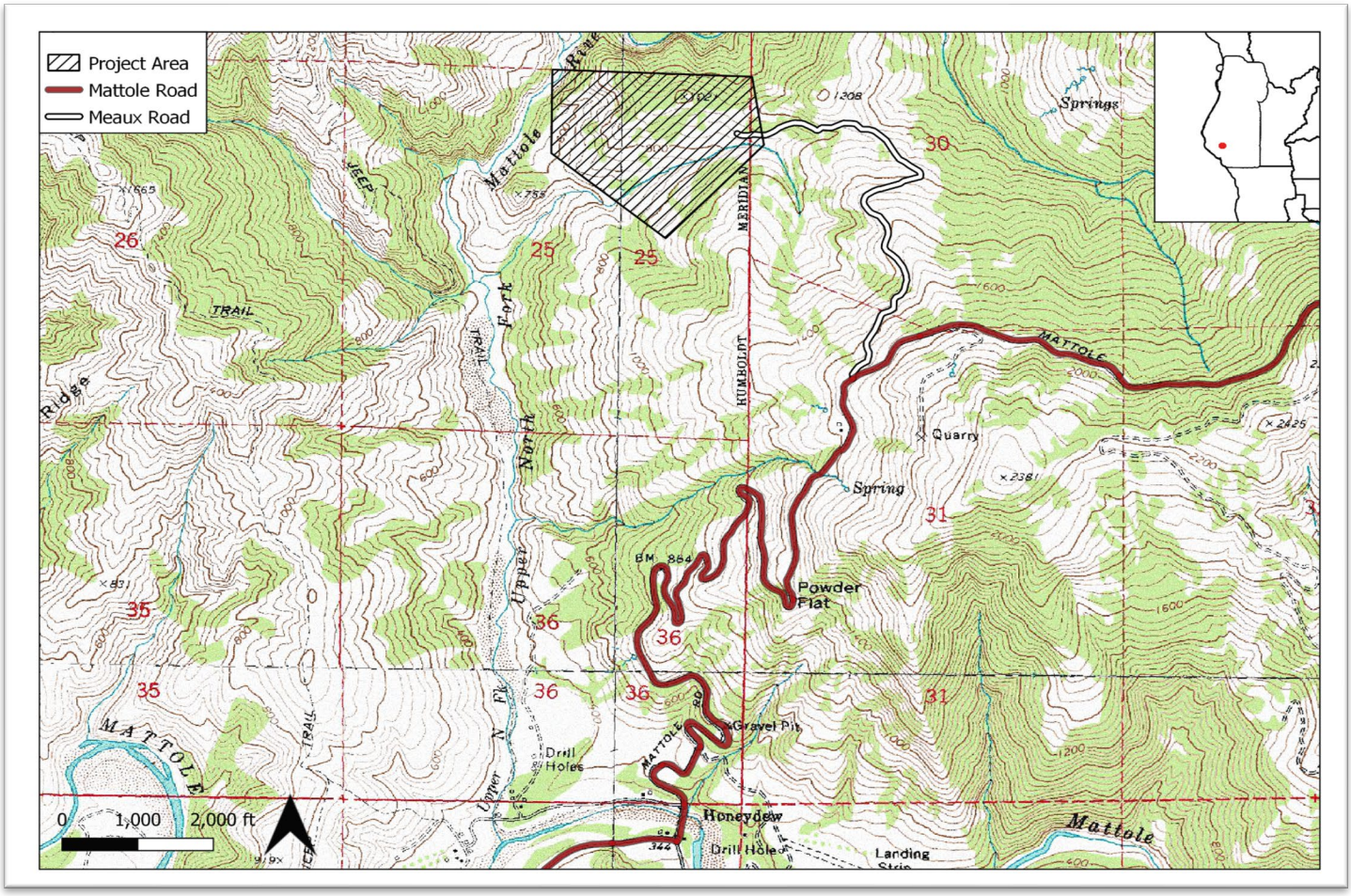


Figure 2. General Location Map

1.7 Existing Regional Conditions

For thousands of years, indigenous peoples lived in villages among Humboldt County's forests and played a substantial role in fire ecology by employing frequent fire return intervals. Frequent low-intensity fires were applied to maintain meadows, encourage healthy acorn crops, reduce pest populations, and enhance hunting grounds. The historic distribution of vegetation types were largely determined by the pattern of Native American burning and lightning-caused wildfires. These disturbances created old-growth coniferous forests in the lower drainages and flats, and hardwood dominated forests on the mid-slopes and along

ridges. Grassy prairies were present along ridgetops and in some cases extended down the creeks.

Following European settlement, ranching, agricultures, and tanbark peeling were the dominant uses of the land in the Mattole. Early settlers in the lower Mattole raised cattle and sheep. In the upland areas the settlers concentrated more heavily on ranching rather than agriculture, due to the heavily forested, steep and rugged character of the land. Within 10 years of European contact in the mid-1800s, the Sinkyone people of the area were nearly decimated by disease and genocide (Roscoe 1985). In addition, conflicts between Euro-American settlement and traditional subsistence use of the valley put significant pressure on many of the indigenous peoples' traditional food sources. Lands that were not depleted by settler's use were barred from the native peoples by notions of private property and trespassing. Many of the oak groves that were a critical source of acorns for winter sustenance were harvested for tanoak bark. Deer, elk, and bear were depleted through hunting, and native elk herds in southern Humboldt County were exterminated by as early as 1859 (Roscoe 1985).

Early settlers also halted most burning in at least the lower Mattole valley. In the early 1900s ranchers reinstated burning locally on grasslands to promote better range conditions. Burning was again ended around the 1920s (Roscoe 1991). Current fire management continues to mandate suppression of all wildfires outside of the public lands, which has directly influenced the distribution of vegetation types and seral stages over the Mattole watershed. In the 1940s commercial logging began in the Mattole Valley. The majority of the timber harvest in the Mattole watershed took place in the late 1940s and '50s with most of the remaining merchantable timber being taken out in the 1960s.

Today, fewer acres burn annually in the Mattole than what burned in the historical fire regime (Lower Mattole CWPP, 2012). Fire suppression, in combination with detrimental past logging practices, has led to stands of dense, young forests. Douglas fir is rapidly encroaching into oak woodlands, grasslands, and hardwoods in mixed conifer forests across the region. This process further threatens ecosystems and wildlife habitat. In addition, sudden oak death has been spreading across Humboldt County and several sites within the Mattole River watershed have detected SOD. The spread of SOD can result in significant oak die-off and the very low moisture content of dead tanoak leaves can lead to increased risk of crown ignitions (Lee, 2009). Throughout the Lower Mattole, over half of the land base is mapped as a Fire Regime Condition Class 3, or as highly divergent from natural regime conditions (significantly altered from historical range), and presents the highest risk of loss (Lower Mattole CWPP, 2012).

1.8 Existing Stand Conditions within the Project Area

Prior to European settlement the Marshall Prescribed Burn Project area was covered with old-growth forest of tanoak, Pacific madrone, and oak savannas composed of white oak, black oak, and grassland. Presumably, the forest could have had portions in other seral stages due to wind, landslides, and recurring fire disturbance. Some Douglas-fir was likely present on the property, and the proportion of Douglas-fir in the stand would have depended upon the frequency and intensity of burning. Areas that burned most frequently and intensely such as the south facing slopes near the ridge top would have lacked Doulgas-fir. After European settlement, the private property was used for sheep ranching by Hindley family. The property was then logged in the early '60s leaving few residual conifer trees. The lack of prescribed fire has resulted in oak woodlands that are being encroached by Douglas-fir, overstocked forest stands, and the reduction of native perennial bunchgrass habitat. The current road network includes pre-existing haul and skid roads from industrial logging, some of which are still in use by the landowner.

CONIFERS AND HARDWOODS

Dominant hardwoods and conifers on the property include tanoak, Douglas-fir, madrone, white oak, and bay laurel. Other species include live oak, big leaf maple, willow, Oregon ash, California buckeye, black oak, and red alder. The forested stand on the north side of the project area was historically much more open, but is now composed predominantly of a mix of 65-year-old Douglas fir and tan oak with occasional Pacific madrone, live oak, and true oaks. Stand densities in this area are high and ladder fuels exist throughout. The stand on the southern side of the project area was predominantly a true oak woodland with infrequent large/wolfy Douglas fir until recent management (in the form of clearcutting and fire suppression) removed most of the mature trees and triggering the extensive establishment of young Douglas fir. An oak woodland restoration project was recently completed on a portion of this area which removed the competing conifers from around some of the oaks. Additional oak woodland restoration and fuel ladder treatment is needed. The northern part of the property is predominantly an oak-Douglas-fir savannah with the Upper North Fork running through the northwest corner. Prairies as well as woodlands are currently being invaded by Douglas-fir.

GRASSLANDS

The existing 35-acre grassland within the project area consists of a mix of annual and perennial grasses with occasional small groups of mature trees within the grassland (majority Douglas firs). At least half of these grasses are now non-native–the result of fire suppression and historic livestock grazing over the last 100 years.

2.0 PROJECT DESCRIPTION

2.1 Treatment Types

Table 1. Proposed CalVTP Treatment Types and Activities

CalVTP Treatment Type	Treatment Description	CalVTP Treatment Activities	Equipment Used for Treatments	Typical Duration of Treatments	Acres of Treatment
Ecological Restoration	Oak woodland restoration/habitat improvement/fire resiliency treatments	Manual, Prescribed Fire (Pile Burn), Prescribed Fire (Broadcast Burn)	Hand tools, trucks, pole saws, weed-trimmers, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers, mowers chainsaws, drip torches, bulldozers	185 days/year	Manual: 45.7 acres Prescribed Fire (Pile Burn): 45.7 acres Prescribed Fire (Broadcast Burn): 45.7 acres
Wildland Urban Interface (WUI) Fuel Reduction	Hazardous fuel reduction treatments	Manual, Prescribed Fire (Pile Burn), Prescribed Fire (Broadcast Burn)	Hand tools, trucks, pole saws, weed-trimmers, water trucks, fire engines, ATVs, UTVs, portable water tanks, water pumps, fire hoses, leaf blowers, mowers chainsaws, drip torches, bulldozers	185 days/year	Manual: 63.6 acres Prescribed Fire (Pile Burn): 63.6 acres Prescribed Fire (Broadcast Burn): 63.6 acres
TOTAL ACRES	Ecological Restoration: 45.7 ac WUI Fuel Reduction: 63.6 ac Total Project area: 109.3 ac				

Proposed treatments would occur in tree and grassland fuel types as described in the CalVTP PEIR Section 2.4.1. Within the project area, forested fuel types are dominated by Douglas-fir

and hardwood stands. The grassland fuel type consists of a mix of nonnative annual and perennial grasses. Within Humboldt County and throughout California, prairies were traditionally maintained by indigenous peoples through burning. Repeated grassland burning maintained the cover of fire adapted species and promoted grassland and prairie vegetation types. With the absence of fire, shrubs and other fire-intolerant woody species will colonize previously open landscapes. Manual and prescribed fire treatments would be applied to reduce the density of encroaching woody species and conifers, which would create a mosaic of vegetation focused on restoring grasslands.

The proposed project comprises two treatment types: ecological restoration and wildland urban interface fuel reduction (Figure 3). The vegetation treatment activities proposed to implement each of these treatment types are manual treatment, prescribed fire (pile burn), and prescribed fire (broadcast burn) (Figure 4). The treatment types and treatment activities are described below.

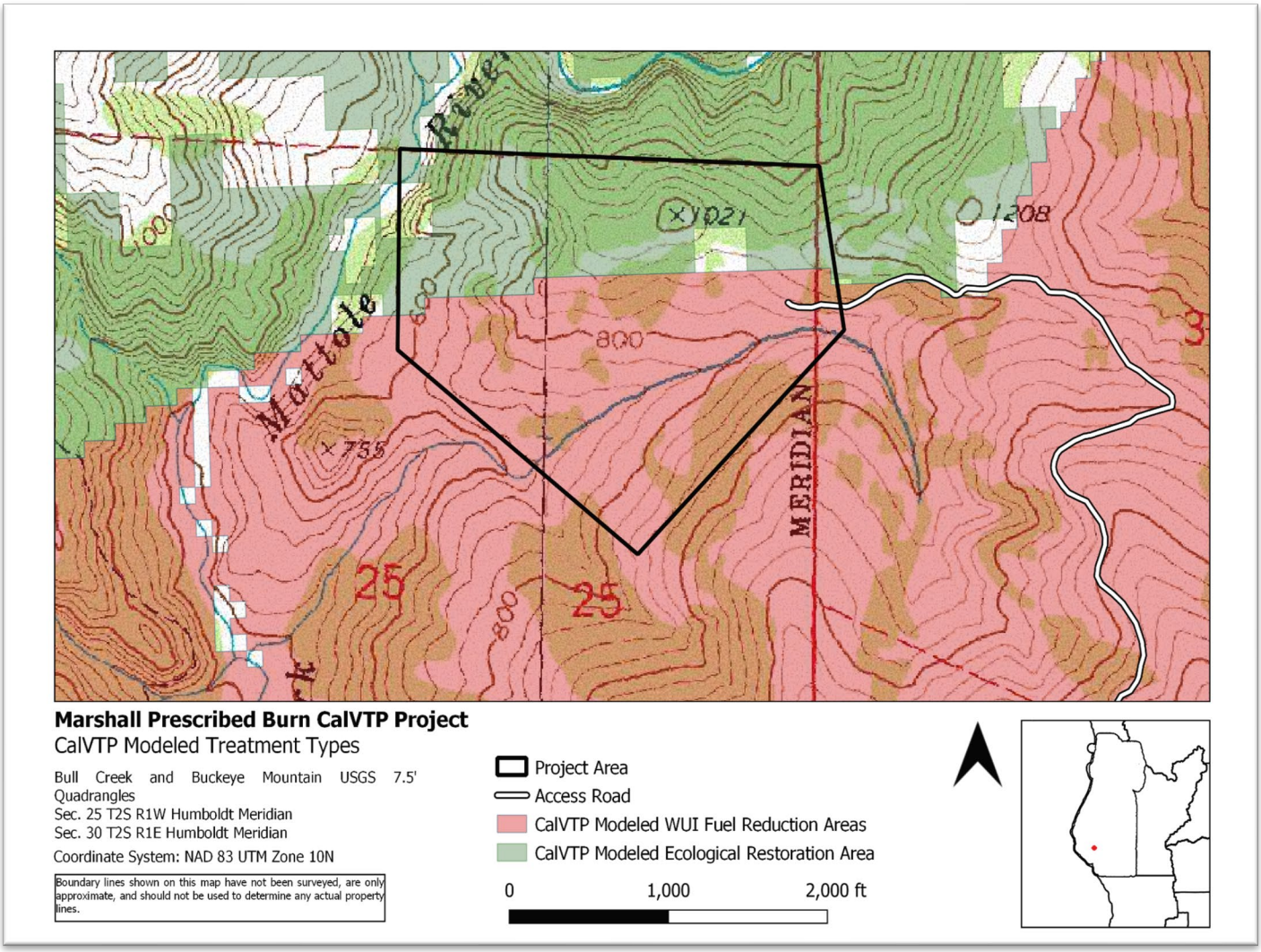


Figure 3. CalVTP Modeled Treatment Types

ECOLOGICAL RESTORATION AREAS

Ecological restoration treatments would be implemented over approximately 45.7 acres of the entire 109.3-acre project area. This project proposes ecological restoration treatments as

defined in the PEIR (CalVTP Final PEIR Volume II Section 2.5.1 page 7 and page 15-17). Ecological restoration is the process of re-establishing the composition, structure, pattern, integrity, and ecological processes necessary to facilitate terrestrial and aquatic ecosystem sustainability, resilience, and health currently and in the future. This would involve vegetation treatments that seek to return the landscape closer to native conditions where natural fire processes can be reestablished and habitat quality is improved, including habitat remediation where non-native, invasive plants have spread, and excess fire fuel buildup has occurred. It is also the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed by destructively intense wildfire.

Ecological restoration treatments may have multiple objectives or goals shaping their design and purpose, including, but not limited to, the following:

- restoring fire adapted ecosystems that resist high intensity fire and associated property and watershed damage;
- improving ecological health by returning appropriate fire frequencies to the landscape; restoring watershed ecosystems and creating forest conditions more closely associated with
  pre-settlement conditions;
- providing locations to conduct research and monitoring on prescribed burning to educate the public and plan burning more effectively in the future.

Ecological restoration treatments will be implemented over approximately 63.6 acres of the entire 109.3-acre project area. treatments will include manual, prescribed fire (pile burn), and prescribed fire (broadcast burn) treatment activities.

WILDLAND URBAN INTERFACE (WUI) FUEL REDUCTION AREAS

This project proposes WUI fuel reduction treatments as defined in the PEIR (CalVTP Final PEIR Volume II Section 2.5.1 page 7 and page 15-17). The focus of WUI fuel reduction treatments is to strategically reduce vegetation density and remove fuel to directly protect communities and assets at risk from potential damage from non-wind driven wildfires originating in the adjacent wildlands, as well as to protect the wildlands from fires starting in or near development. WUI fuel reduction treatments also serve as emergency access points and staging areas for firefighters and equipment and reduce flammable vegetation along emergency evacuation routes for the community. Also, where existing habitat within the WUI is degraded, such as by the infestation of non-native plant species, as well as needing fuel reduction, WUI treatments would also help enhance habitat quality.

The project is about two miles north of the community of Honeydew, a community with a population of about 500–where homes are located far apart and interspersed throughout the wildlands. Hazardous fuel reduction in the WUI-designated area has the potential to benefit the local Honeydew community and will be implemented over approximately 63.6 acres of the entire 109.3-acre project area. WUI fuel reduction treatments will include manual, prescribed fire (pile burn), and prescribed fire (broadcast burn) treatment activities.

2.2 Treatment Activities

The proposed vegetation treatment activities are manual treatment, prescribed fire (broadcast burn), and prescribed fire (pile burn) (Figure 4). Each of these treatment activities is described in more detail below and is consistent with the treatment activities described in CalVTP.

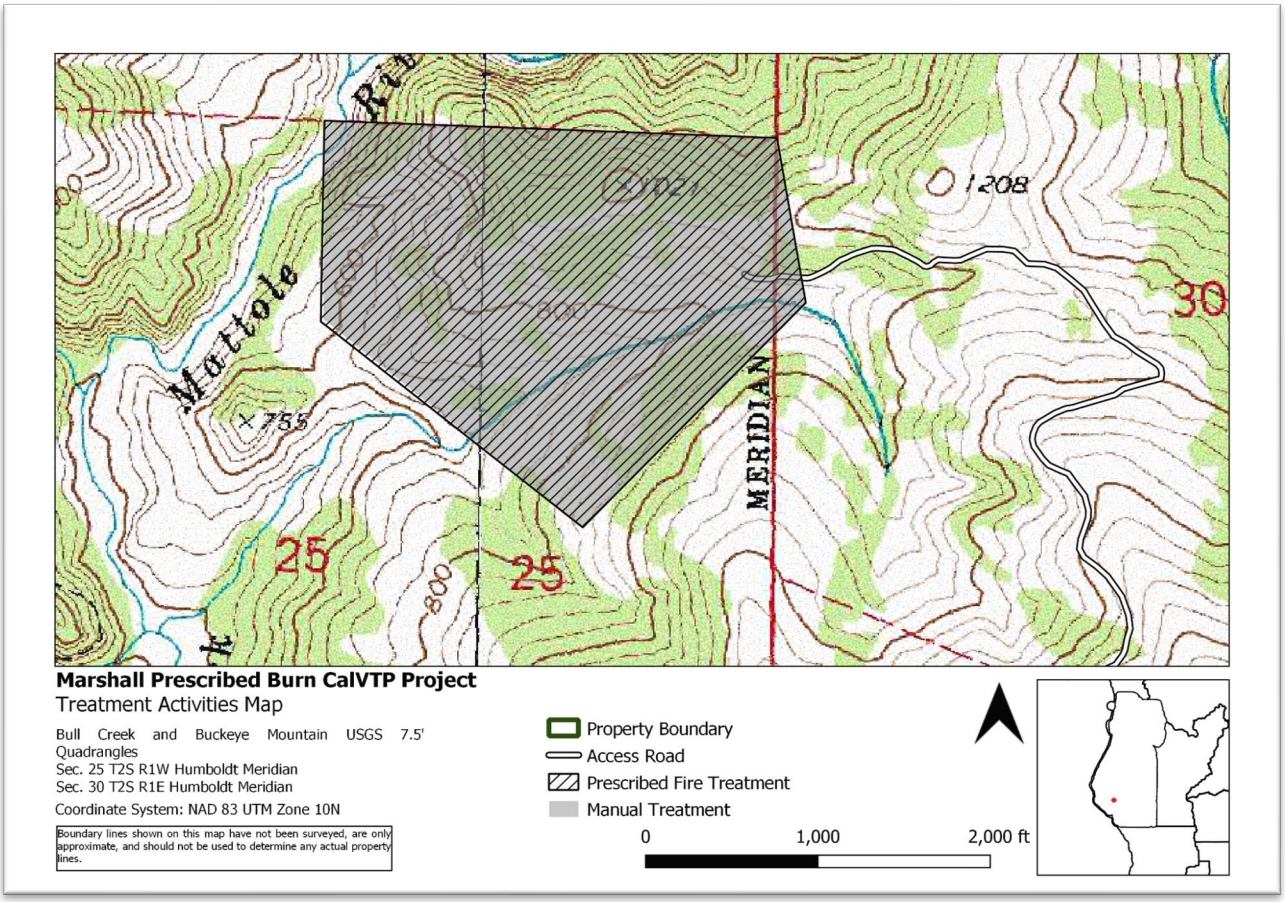


Figure 4. Map of treatment activities across the Marshall Project Area.

MANUAL TREATMENTS

Manual treatments are proposed for up to 109.3 acres of the Project area. Manual treatments consist of the use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous or woody species.

Manual treatment activities could include the following:

- thinning trees with chainsaws, loppers, or pruners;
- cutting undesired competing brush species to favor desirable species and spacing;
- pulling, grubbing, or digging out root systems of undesired plants to prevent sprouting and regrowth; and
- placing mulch around desired vegetation to limit competitive growth.

The objective of manual treatment is to develop a stand with the structure and composition reflecting Fire Regime Condition Class 1 for the native vegetation type. That is, vegetation patterns and disturbance regimes characteristic of a natural fire regime.

Healthy California oak woodlands were typically a mosaic of grassy prairies and scattered oak trees with an understory dominated by native, long-lived, bunch grasses, and native forbs. Oak woodlands and grassland in this region would have typically been free of encroaching conifer trees and extensive shrubs. Open-grown tanoak, madrone, and live oak trees were also typical

among these vegetation types, and were maintained by frequent low-intensity fire. Healthy mixed conifer-hardwood forests would typically have a continuous canopy of large, fire-resistant conifers and hardwoods with few overlapping crowns. Understory shrubs and young trees had a patchy arrangement and fuel loads were light (Sawyer et al. 2009, Schriver et al. 2018, Cocking et al. 2012, Bingham and Sawyer 1992)

Treatments will be limited to removal of uncharacteristic fuel loads, trimming/limbing as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy grassland, oak woodland, and mixed conifer-hardwood forest in the region.

In general, trees removed will be less than 16" Diameter at Breast Height (DBH) and will emphasize the removal of ladder fuels. Trees greater than 16" DBH may be girdled or removed as necessary to restore grassland and oak woodlands, or occasionally in mixed-conifer hardwood stands to achieve healthy stand densities or improve tanoak acorn production for wildlife. Uncommon tree species, such as buckeye and ash, will be retained. Trees with wildlife habitat structures flagged by the biologist will be retained, as per SPR BIO-10 and MM BIO-5.

Where present, excessive hazardous brush will be cut and piled. In an effort to provide habitat for wildlife, islands of brush will be retained in an arrangement that does not contribute to horizontal or vertical fuel continuity.

If pre-treatment surveys identify areas occupied by Northern spotted owls, treatments will follow the habitat retention specifications for occupied spotted owl habitat in Impact BIO-2.

Manual treatments within Watercourse and Lake Protection Zones will follow the specifications in Attachment A, SPR BIO-4 (Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function).

PRESCRIBED BURN

Prescribed burning including pile burning and broadcast burning is proposed for 109.3 acres of the Project area.

Fire history studies in the Mattole region indicate that the indigenous people in the Mattole, including the Mattole, Sinkyone, and Wailaki tribes frequently used low-intensity surface fires to care for the landscape (Lower Mattole CWPP). The pre-historic fire return interval in white oak woodlands in Humboldt County was typically 7 to 13 years (Stuart and Stephens, 2006). 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 has led to type conversions from oak woodland/grassland to conifer-dominated forest. Prescribed burning in oak woodland/grassland fuel types will reduce the spread of non-native grasses and prevent type conversion to conifer forest.

The Fire Regime Condition Class (FRCC) is currently Class 3 throughout the project area, meaning that fire regimes and vegetation are significantly altered from historical conditions. Uncharacteristic fire behavior and fire effects could occur, resulting in vegetation composition and assemblages not known to exist during reference conditions. Prescribed burning will help to reduce fuel loading, stimulate understory species, and create stand structure that is within the range of historic variability for this forest type.

Pile Burn
Pile burning will be used to remove biomass generated by manual treatments. 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 the fuel load and restore appropriate fire regimes.

Pile burning specifications are as follows:

- Biomass from manual treatments will be piled using hand crews
- Pile burning will occur outside of Watercourse and Lake Protection Zones (WLPZ) as defined in SPR HYD-4.
- Pile burning will be conducted in compliance with Air Quality Management District regulations as per SPR AQ-1.
- Piles will be constructed in areas where burning can be safely controlled (e.g. slopes generally <40%).
- Piles will be placed away from retention trees and hazards such as snags, rotten stumps, fallen logs, and dead branches.
- Burn piles will not occupy more than 15 percent of the total treatment area (i.e. the property) or exceed 20 feet in length, width, or diameter as described in SPR GEO-6.

Broadcast Burn
Broadcast burning, as described in CalVTP PEIR Section 2.5.2, will be used to reduce fuels over larger areas. Broadcast burning will reintroduce ecologically 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, reduce duff and litter depths, improve habitat for native perennial bunchgrass, and reduce conifer encroachment in oak woodlands.

Understory burns would be implemented according to the prescription set out in a burn plan. A burn plan defines the desired maximum flame lengths and fire spread rates based on the fuel types, weather, slopes, aspect, staffing levels and containment lines and strategies. Interior portions of prescribed fires may exceed the prescribed flame lengths planned at the control lines, but the overall prescription is designed to safely contain the fire within the planned fire perimeter. Broadcast burns may occur in fall, winter, spring and early summer, but are most likely to occur in fall and winter during conditions that are conducive to burning targeted fuels. Broadcast burning may require the construction of new control lines or enhancement of existing control lines. This may include handlines, mow lines, and/or dozer lines.

Broadcast burning ignition will be conducted with handheld devices such as drip torches, fusees, and Very pistols (i.e., flare guns). Broadcast burning would usually require between 5 and 50 crew members, depending on size and site characteristics of the burn unit. Typically, each burn would last 1 day to 2 weeks. Equipment could include water trucks, fire engines, water pumps, dozers, ATVs, UTVs, hand tools, leaf blowers, weed trimmers, drip torches, and chainsaws. All burning will occur in accordance with regulations regarding the use of prescribed burning. This would include the preparation and implementation of a burn plan and smoke management plan as per SPR AQ-2 and SPR AQ-3.

2.3 Duration of Treatments

Initial treatments within the 35-acre area are estimated to begin in September 2023 and be completed by March 2026. 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. Maintenance treatments are estimated to occur approximately every 3-10 years but may occur as needed, depending on vegetative regrowth and the availability of funding and resources to conduct treatment. If and when the conditions change, the PSA will be amended to reflect that change.

3.0 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. **Project Title:** Marshall Prescribed Burn
2. **CalVTP I.D. Number:** 2023-10
3. **CEQA Lead Agency Name and Address:**
   Humboldt County Resource Conservation District
   5630 S. Broadway Street
   Eureka, CA 95503

   Implementing Entity Name and Address:
   Mattole Restoration Council
   29230 Mattole Road
   Petrolia, CA 95558

4. **Contact Person Information and Phone Number:**
   CEQA Lead Agency: Humboldt County Resource Conservation District – Jill Demers;

jillhcrcd@gmail.com, 707.296.3992

   Implementing Entity: Mattole Restoration Council - Sarah Vroom/Ali Freedlund;
   vroom@mattole.org/ali@mattole.org, 707.629.3514

5. **Project Location:**

The project is located in southern Humboldt County, north of Honeydew, immediately east of the Upper North Fork Mattole River, west of Meaux Road. Bull Creek and Buckeye Mountain USGS 7.5 Quadrangles. T 2S R 1W Sec 25 & T 2S R 1E Sec 30 H.B.&M.

6. **Total Area to be Treated (acres):** 109.3 acres

7. **Description of Project:** See Section 2, “Project Description” above for a detailed description of the proposed project.
8. **Treatment Types** *[see description in CalVTP PEIR Section 2.5.1, check every applicable category; provide detail in Description of Project*]
   ☒ Wildland-Urban Interface Fuel Reduction
   ☐ Fuel Break
   ☒ Ecological Restoration

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

☒ Prescribed Burning (Broadcast), 109.3 acres

☒ Prescribed Burning (Pile Burning), 109.3 acres

☐ Mechanical Treatment, _____ acres

☒ Manual Treatment, 109.3 acres

☐ Prescribed Herbivory, _____ acres

☐ Herbicide Application, _____ acres

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

☒ Grass Fuel Type
☐ Shrub Fuel Type
☒ Tree Fuel Type

11. Geographic Scope

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

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

The project area encompasses a total of approximately 109.3 acres in southwestern Humboldt County immediately east of the Upper North Fork of the Mattole River. The project is located entirely on privately owned lands and is surrounded by other private parcels. The community of Honeydew is one mile south of the project area.

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

North Coast Air Quality Management District (NCAQMD) smoke management plan, when required

NCAQMD burn permits, when required

CAL FIRE burn permits, when required

No other public agency approval is required for this project.

14. Native American Consultation. *For treatment projects that are within the scope of this PEIR, AB 52 consultation has been completed. The Board of Forestry and Fire Protection and CAL FIRE completed consultation pursuant to Public Resources Code section 21080.3.1 in preparation of the PEIR.*

Pursuant to CalVTP SPR CUL-2, on June 6, 2023, notification letters were sent to the eight Native American tribes in Humboldt County listed by the Native American Heritage Commission. While three responses were received from those contacted, no specific cultural resources concerns were identified within the project area nor were there objections to proposed treatments by any Native American tribes.

15. Use of PSA for Treatment Maintenance:

Maintenance treatments are estimated to occur approximately every 3-10 years but may occur as needed, depending on vegetative regrowth and the availability of funding and resources to conduct treatment. Maintenance intervals will be dependent on the re-establishment rate of the understory species and would be triggered by excessive understory and ladder fuels. Maintenance treatments would be conducted using the same treatments described above for initial treatments (i.e. manual fuels treatment, prescribed fire). Prior to implementing a maintenance treatment, MRC will verify that the expected site conditions as described in the PSA/Addendum are present in the treatment area. As time passes, the continued relevance of the PSA/Addendum will be considered in light of potentially changed conditions or circumstances. Where the HCRCD or other agencies using this PSA/Addendum for CEQA compliance determine that the PSA/Addendum is no longer sufficiently relevant, the agency will determine whether a new PSA or other environmental analysis is warranted.

16. 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

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

☒ All applicable SPRs and Mitigation Measures are feasible and will be implemented, as ☒ described in this PSA

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

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

Explanation: N/A

DETERMINATION

On the basis of this initial evaluation:

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

☒ I find that 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 examined in the CalVTP PEIR. These effects are less than significant without any mitigation beyond what is already required pursuant to the CalVTP PEIR. A NEGATIVE DECLARATION will be prepared.

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

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

Signature: _____ Date: August 7, 2023

Printed Name: Jill Demers **Title:** Executive Director
Agency: Humboldt County Resource Conservation District

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 lifespan 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 CEQA lead or responsible agency has evaluated the environmental effect that may occur, then the checklist answers must indicate whether the impact is:

   - **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 -** 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
- **Significant and Unavoidable** - 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)**

4. 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.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. Agencies 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 a 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. For this project, the implementing entity will be SJW.
- **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 and is typically the CEQA lead or responsible agency. For the purposes of the FHG, the verifying/monitoring entity is CAL FIRE.

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

Discussion:

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

Initial and maintenance treatments would include manual and prescribed burning treatment activities. The potential for these treatments to result in short-term, substantial degradation of scenic vistas or visual character of the landscape is examined in the PEIR (CalVTP PEIR Volume II Section 3.2.3, p. 16-19). The project area is located on private lands, which are not accessible to the public and no public recreational trails exist within the project area or its viewshed. In addition, the project area can not be seen from public roadways. In addition, smoke from prescribed burns would not result in substantial short-term aesthetic impacts, because burning would be temporary, lasting up to 2 weeks but typically only 1 -3 days, and project proponents would be required to prepare and adhere to a smoke management plan (SMP) (SPR AQ-2) and a Burn Plan (SPR AQ-3). Due to these factors, no degradation of public views would result from active implementation of vegetation treatment activities. The potential for the project to result in short-term substantial degradation of the visual character of the project area is within the scope of the PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR.

The project proponent proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by the project proponent would include smoke management plans that would meet the same standards as required under CAL FIRE burn plans. For these reasons, proposed revisions to SPR AQ-3 would not result in increased smoke emissions or smoke-related impacts. Therefore, revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on aesthetics and visual resources than what was covered in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the existing scenic resources associated with the project area are substantially similar

within and outside of the treatable landscape analyzed in the PEIR; therefore, the short-term aesthetic impact is substantially similar to that described 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.

The SPRs applicable to the proposed Project are SPR AQ-2, and SPR AQ-3. SPR AES-2 does not apply to this project as no public viewsheds exist in or around the project area. SPR REC-1 does not apply as the project will not require temporary closures of a public recreation area or facility.

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

Initial and maintenance treatments would include manual and prescribed burning treatment activities. The result for these treatments to result in long-term degradation of the visual character of the landscape was examined in the PEIR (CalVTP PEIR Volume II Section 3.2.3, pages 20-22). The project area is located on private lands, which are not accessible to the public and no public recreational trails exist within the project area or its viewshed. In addition, the project area can not be seen from public roadways. Treatments would remove shrubs and trees smaller than 16 inches DBH, leaving overstory vegetation. Therefore, mature vegetation would remain to provide partial screening of treatment areas. The long-term visual character of the treatment areas after implementation of the proposed WUI fuel reduction and ecological restoration treatments would remain consistent with the current natural, vegetated landscape and would not constitute a noticeable adverse change or degrade the current visual character of the landscape. Additionally, SPR AD-4 would provide public notifications for prescribed burning. Due to these factors, no degradation of public views or scenic resources would result from active implementation of vegetation treatment activities. The potential for the project to result in long-term substantial degradation of the visual character of the project area is within the scope of the PEIR because the proposed treatment activities are consistent with those analyzed in the PEIR.

Revisions to SPR AD-4 are proposed to post signs along the closest public roadway to the treatment area at least one day prior to the commencement of prescribed burning operations to encourage greater visibility due to increased sign theft associated with posting length. The project proponent would implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls at least three days prior to prescribed burning. These revisions are consistent with the purpose of SPR AD-4 to make a good faith effort to notify the local community in advance of prescribed burning treatments. For these reasons, proposed revisions to SPR AD-4 would not result in a substantially more severe significant effect related to short-term degradation of public views than what was covered in the Program EIR. This determination is consistent with the Program EIR and would not constitute a substantially more severe significant impact than what was covered in the Program EIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing visual character is substantially similar within and outside of the treatable landscape; therefore, the long-term aesthetic impact is substantially similar to that described in the PEIR. The proposed treatments would be consistent with the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR. The SPRs applicable to the proposed project are SPR AES -1 and SPR AD-4. SPR REC-1 does not apply as the project will not require temporary closures of a public recreation area or facility. SPR AES-3 does not apply as there are no public trails, parks, recreation areas, or public roadways in or around the project area.

Impact AES-3: Result in Long-Term Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from the Non-Shaded Fuel Break Treatment Type	Impact AES-3, 3.2	SU	**MM AES- 3**	No	-	-
No Non-Shaded fuel breaks are proposed as a part of the Project. MM-AES 3 does not apply.						

Other Impacts to Aesthetics: Would the project result in other impacts to aesthetics that are not evaluated in the CalVTP PEIR?				No	-	☒
The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD has evaluated and considered site specific characteristics to determine that the project treatments are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.2.1, “Environmental Setting,” and Section 3.2.2, “Regulatory Setting,” in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the project area constitutes a change to the geographic extent presented in the PEIR. However, the existing scenic resources associated with the project area are substantial similar within and outside treatable landscape analyzed in the PEIR. Therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment Project are consistent with those covered in the 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 impact. Therefore, no new impact related to aesthetics and visual resources would occur.						

Aesthetics and Visual Resources SPRs and MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR AES-1 Vegetation Thinning and Edge Feathering: This SPR only applies to mechanical and manual treatment activities within all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR AES-1 applies, see Attachment A.			

SPR AES-2 Avoid Staging within Viewsheds: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR AES-2 does not apply to this project as no public viewsheds exist in or around the project area.			

SPR AES-3 Provide Vegetation Screening: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR AES-3 does not apply as there are no public trails, parks, recreation areas, or public roadways in or around the project area.			

Mitigation Measure AES-3 Conduct Visual Reconnaissance for Non-Shaded Fuel Breaks and Relocate or Feather and Screen Publicly Visible Non-Shaded Fuel Breaks	No	N/A	N/A
No Non-Shaded Fuel Breaks are proposed as part of the Project.			

3.2 EC – Agriculture and Forestry Resources

Discussion:

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact

Impact AG-1: Result Directly in the Loss of Forest Land or Conversion of Forest Land to a Non-Forest Use or Involve Other Changes in the Existing Environment Which, Due to Their Location or Nature, Could Result in Conversion of Forest Land to Non-Forest Use	Impact AG-1, 3.3	LTS	N/A	Yes	LTS	☒

The dominant vegetation community in the project area is forest and includes species such as Douglas fir, tanoak, madrone, white oak, bay laurel, live oak, big leaf maple, willow, Oregon ash, black oak, and red alder. The forest stands within the project area generally have closed canopies with moderate to dense understory fuels. The project area is considered "forest land" as defined in Public Resources Code (PRC) Section 12220(g), which is land that can support 10 percent native tree cover of any species under natural conditions.

Vegetation treatment activities implemented within the project area would include manual, prescribed fire (pile burn), and prescribed fire (broadcast burn). The potential for these treatment types and treatment activities to result in the loss of forest land or conversion of forest land to non-forest use was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.3.3 page 7-8). For those areas where the existing native tree cover exceeds 10 percent, consistent with the PEIR, the vegetation remaining after treatments in those areas would continue to meet the definition of forest land as defined in PRC Section 12220(g), which defines "forest land" as land that can support 10 percent native tree cover of any species under natural conditions.

The inclusion of land in the project 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 composition of forested land as defined in PRC Section 12220(g) is essentially the same within and outside the treatable landscape; therefore, the impact to forest land is substantially the same as described 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.

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

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD has considered the site-specific characteristics of the proposed Project and determined they are consistent with the applicable environmental and regulatory conditions presented in the CalVTP PEIR (refer to Section 3.3.1, "Environmental Setting," and Section 3.3.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the project 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 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 new significant impacts not addressed in the PEIR. Therefore, no new impact related to agriculture and forestry resources would occur that is not covered in the PEIR.

3.3 EC – Air Quality

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

Use of vehicles, mechanical equipment, and prescribed burning 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 manual, and prescribed burning. Emission reduction techniques included in Mitigation Measure AQ-1 would be infeasible for the project proponent to implement. Because the treatments would be implemented by the Mattole Restoration Council with limited funding, it is cost prohibitive to use equipment meeting the latest efficiency standards, including meeting the U.S. EPA's Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology. In addition, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. Based on the implementation of applicable SPR's, there would be a reduction in emissions and exposure to potential health effects. However, the amount of reduction resulting from the SPR's 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).

The project proponent proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss

curriculum development committee, or equivalent). Burn plans prepared by the project proponent would include smoke management plans that would meet the same standards as required under CAL FIRE burn plans. In addition, the project proponent proposes to revise SPR AD-4 to post signs along the closest public roadway to the treatment area at least one day prior to the commencement of prescribed burning operations to encourage greater visibility due to increased sign theft associated with posting length. The project proponent would implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls at least three days prior to prescribed burning. These revisions are consistent with the purpose of SPR AD-4 to make a good faith effort to notify the local community in advance of prescribed burning treatment. Finally, the project proponent proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that Incident Action Plans would be prepared that include elements appropriate for the size and scope of the burn. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. All assigned personnel for a prescribed burn will be briefed to ensure personnel safety and convey prescribed fire objectives. This revision is consistent with the purpose of SPR AQ-6 to prepare and implement an IAP and all required burn safety procedures. For the reasons described above, proposed revisions to SPR AQ-3, AQ-6, and AD-4 would not result in a substantially more severe significant effect related to emissions of criteria air pollutants than what was covered in the Program EIR. This impact would remain significant and unavoidable as explained in the Program EIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the boundary of the project area that are within and outside of the treatable landscape are located within the same air basin and contain the same air quality conditions. Additionally, the area outside of the treatable landscape, 3.7 acres, is not substantial in comparison to expected annual statewide treatment area of 250,000 acres; thus, the increase in the use of vehicles, prescribed fire, mechanical equipment, and related emissions, would not be substantially greater than that analyzed in the PEIR (i.e., within the treatable landscape). Therefore, the air quality impact is not substantially greater than described in the PEIR. This impact would remain significant and unavoidable as explained in the PEIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

The SPRs applicable to the proposed project are SPR AD-4, SPR AQ-1, SPR AQ-2, SPR AQ-3, SPR AQ-4, and SPQ AQ-6. MM AQ-1 is also applicable to the proposed project. SPR AQ-5 would not apply because no naturally occurring asbestos is mapped within the treatment areas.

Impact AQ-2: Expose People to Diesel Particulate Matter Emissions and Related Health Risk	Impact AQ-2, 3.4	LTS	SPR HAZ- 1 SPR NOI- 4 SPR NOI- 5	Yes	LTS	☒
The use of vehicles and mechanical equipment during initial and maintenance treatments could expose people to diesel particulate matter emissions. The potential to expose people to diesel particulate matter was examined in the PEIR (CalVTP						

Final PEIR Volume II Section 3.4.3, page 33-34). The proposed treatments would occur over a short duration and would not occur near the same people for an extended period of time. 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 be used, as well as the duration of use, during proposed treatments are consistent with those analyzed in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 the same as those within the treatable landscape. Additionally, the area outside of the treatable landscape, 3.7 acres, is not substantial in comparison to expected annual statewide treatment area of 250,000 acres; thus, the increase in the use of vehicles, prescribed fire, mechanical equipment, and related emissions, would not be substantially greater than that analyzed in the PEIR (i.e., within the treatable landscape).

The SPRs applicable to the proposed project are SPR HAZ-1, NOI-4 and NOI-5. 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: Expose People to Fugitive Dust Emissions Containing Naturally Occurring Asbestos and Related Health Risk	Impact AQ-3, 3.4	LTS	SPR AQ-4, 5	No	LTS	☒
This impact does not apply to the treatment project, because no naturally occurring asbestos is mapped in the treatment area and no evidence of naturally occurring asbestos was found during multiple site visits.						

Impact AQ-4: Expose People to Toxic Air Contaminants (TACs) Emitted by Prescribed Burns and Related Health Risk	Impact AQ-4, 3.4	PSU	SPR AD- 4 SPR AQ-2, 6	Yes	SU	☒
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 North Coast Air Quality Management District. 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, 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). The project proponent proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that Incident						

Action Plans would be prepared that include elements appropriate for the size and scope of the burn. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. All assigned personnel for a prescribed burn will be briefed to ensure personnel safety and convey prescribed fire objectives. This revision is consistent with the purpose of SPR AQ-6 to prepare and implement a IAP and all required burn safety procedures. In addition, the project proponent proposes to revise SPR AD-4 to post signs along the closest public roadway to the treatment area at least one day prior to the commencement of prescribed burning operations to encourage greater visibility due to increased sign theft associated with posting length. The project proponent would implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls at least three days prior to prescribed burning. These revisions are consistent with the purpose of SPR AD-4 to make a good faith effort to notify the local community in advance of prescribed burning treatments. For the reasons described, proposed revisions to SPR AQ-6, and AD-4 would not result in a substantially more severe significant effect related to exposing people to toxic air contaminants than what was covered in the Program EIR. This impact would remain significant and unavoidable as explained in the Program EIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

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 basins in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. This impact would remain significant and unavoidable as explained in the PEIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

The SPRs applicable to the proposed Project are SPR AD-4, SPR AQ-2, and SPR AQ-6

Impact AQ-5: Expose People to Objectionable Odors from Diesel Exhaust	Impact AQ-5, 3.4	LTS	SPR HAZ-1 SPR NOI-4, 5	Yes	LTS	☒
The use of vehicles and mechanical equipment during initial and maintenance treatments could expose human receptors to the objectionable odors from diesel exhaust. The potential to expose human receptors to diesel exhaust was analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.4.3, page 37-38). The release of objectionable odors from diesel exhaust during proposed treatments is within the scope of the impacts analyzed in the PEIR because the proposed 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.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 the same as those within the treatable landscape. Additionally, the area outside of the treatable landscape, 3.7 acres, is not substantial in comparison to expected annual statewide treatment area of 250,000 acres; thus, the increase in the use of vehicles and mechanical equipment, and related emissions, would not be substantially greater than that analyzed in the PEIR (i.e., within the treatable landscape). Therefore, the air quality impact is substantially similar to that described in the PEIR and would not constitute a substantially more severe significant impact than what was covered in the PEIR.

The SPRs applicable to the proposed project are SPR HAZ-1, NOI-4 and NOI-5.

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

The potential exposure of people to objectionable odors from smoke generated during prescribed burning, including pile burning, was examined in the PEIR and found to be significant and unavoidable after the application of all feasible mitigation measures because short-term exposure to odorous smoke emissions from unpredictable weather changes could occur (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, 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).

The project proponent proposes to revise requirements under SPR AQ-6 for prescribed burning activities such that Incident Action Plans would be prepared that include elements appropriate for the size and scope of the burn. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. All assigned personnel for a prescribed burn will be briefed to ensure personnel safety and covey prescribed fire objectives. This revision is consistent with the purpose of SPR AQ-6 to prepare and implement a IAP and all required burn safety procedures. In addition, the project proponent proposes to revise SPR AD-4 to post signs along the closest public roadway to the treatment area at least one day prior to the commencement of prescribed burning operations to encourage greater visibility due to increased sign theft associated with posting length. The project proponent would implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls at least three days prior to prescribed burning. These

revisions are consistent with the purpose of SPR AD-4 to make a good faith effort to notify the local community in advance of prescribed burning treatments. For the reasons described, proposed revisions to SPR AQ-6, and AD-4 would not result in a substantially more severe significant effect related to exposing people to objectionable odors than what was covered in the Program EIR. This impact would remain significant and unavoidable as explained in the Program EIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

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 sensitive receptors in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the air quality impact is also the same, as described above. This impact would remain significant and unavoidable as explained in the PEIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

The SPRs applicable to the proposed project are SPR AD-4, SPR AQ-2, and SPR AQ-6.

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

The proposed treatment is consistent with the treatment types and activities evaluated in the CalVTP PEIR. The HCRCD has considered the site-specific characteristics of the proposed treatment project and determined that they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (refer to Section 3.4.1, "Regulatory Setting," and Section 3.4.2, "Environmental Setting," in Volume II of the Final PEIR). Including land from outside the CalVTP treatable landscape in the project 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 pertinent to air quality that are present in the areas outside the treatable landscape are the same as those within the treatable landscape; therefore, the impacts are the same and, for the reasons described above, impacts of the proposed treatment project are consistent with those covered in the 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 impact.

Air Quality SPRs and MMs

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

SPR AQ-1 applies, see Attachment A.			

SPR AQ-2 Submit Smoke Management Plan: This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
SPR AQ-2 applies, see Attachment A.			

SPR AQ-3 Create Burn Plan: This SPR applies only to prescribed burning treatment activities and all treatment types**,** including treatment maintenance.	Yes	MRC Prior	MRC
SPR AQ-3 applies, see Attachment A.			

SPR AQ-4 Minimize Dust: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR AQ-4 applies, see Attachment A.			

SPR AQ-5 Avoid Naturally Occurring Asbestos: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	No	N/A	N/A
SPR AQ-5 does not apply to the treatment project, because no naturally occurring asbestos is mapped in the treatment area or was observed during site visits.			

SPR AQ-6: Prescribed Burn Safety Procedures: This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR AQ-6 applies, see Attachment A.			

MM AQ-1: Implement On-Road Vehicle and Off-Road Equipment Exhaust Emission Reduction Techniques Where feasible, project proponents will implement emission reduction techniques to reduce exhaust emissions from off-road equipment.	No	N/A	N/A

Emission reduction techniques included in Mitigation Measure AQ-1 would be infeasible for the project proponent to implement. Because the treatments would be implemented by the Mattole Restoration Council with limited funding, it is cost prohibitive to use equipment meeting the latest efficiency standards, including meeting the U.S. EPA's Tier 4 emission standards, using renewable diesel fuel, using electric- and gasoline-powered equipment, and using equipment with Best Available Control Technology. In addition, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers

3.4 EC – Archaeological, Historical, and Tribal Cultural Resources

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

Proposed treatment activities include prescribed burning treatments, which could damage historical resources. The results of the records search conducted on April 19, 2023 at the Northwest Information Center (NWIC) indicated that there are no recorded historic-period archaeological resources within or adjacent to the Marshall Prescribed Burn Project area. In addition, an archaeological survey completed on May 9th resulted in no built historical resources. Therefore, no built historical resources exist within the project area and it is not expected that the treatment activities will have any impact on built historical resources.

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

The SPRs applicable to the proposed project are SPR CUL-1 and CUL-8. SPR CUL-7 does not apply as there are no built historical resources within the project area.

Impact CUL-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources or Subsurface Historical Resources	Impact CUL-2, 3.5	SU	SPR CUL-2, 3, 4, 5, 8 MM CUL- 2	Yes	SU	☒
Prescribed burn treatments could involve the use of heavy equipment for building a fire line which could disturb the surface of the ground in very limited areas. This could 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 (SPR CUL-1), all geographically affiliated Native American tribes were contacted and notified of treatment activities (SPR CUL-2), pre-field research was conducted (SPR CUL-3), and an archaeological survey was conducted on May 9th (SPR CUL-4). No archaeological sites were identified, but any archaeological sites identified during treatments 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). The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the potential for discovery of archaeological resources is essentially the same within and outside the treatable landscape; therefore, the potential impact to unique archaeological resources or subsurface historical resources is also the same, as described above. This impact is within the scope of the PEIR because treatment activities and intensity of ground disturbance of the treatment project 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. The SPRs applicable to the proposed project are SPR CUL-2, CUL-3, CUL-4, CUL-5, and CUL-8. Mitigation Measure CUL-2 is also applicable to the proposed project.						

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

On June 6, 2023, eight letters were sent to Native American tribes in Humboldt County listed in NAHC. While three responses were received from those contacted, no specific cultural resources concerns were identified within the project area nor were there objections to proposed treatments by any Native American tribes. The potential for the proposed treatment activities to cause a substantial adverse change in the significance of a tribal cultural resource during implementation of vegetation treatment was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 17). 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. As explained in the PEIR, while tribal cultural resources may be identified within the treatable landscape during development of later treatment projects, implementation of SPRs would avoid any substantial adverse change to any tribal cultural resource. Based on the implementation of applicable SPR's and consistency with the scope of the PEIR, this impact remains less than significant.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the tribal cultural affiliations present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact to tribal cultural resources is also the same, 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.

The SPRs applicable to the proposed project are SPR CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and CUL-8.

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

Prescribed burn treatments could involve the use of heavy equipment for building a fire line which could disturb the surface of the ground in very limited areas. This activity has the potential to uncover human remains. The potential for treatment activities to uncover human remains was examined in the PEIR. This impact is within the scope of the PEIR because the treatment activities and intensity of ground disturbance are consistent with those analyzed in the PEIR (CalVTP Final PEIR Volume II Section 3.5.3, page 18). Additionally, consistent with the PEIR, the project would comply with California Health and Safety Code Section 7050.5 and PRC Section 5097 which specify the procedures to be followed in the event of the unexpected discovery of human remains. 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.

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

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

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.5.1, "Environmental Setting," and Section 3.5.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the project 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 pertinent to archaeological, historical, or tribal cultural resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances are present, therefore, no new impact related to archaeological, historical, or tribal cultural resources would occur.

Archeological, Historical, and Tribal Cultural Resources Applicable SPRs and MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR CUL-1 Conduct Record Search: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
A records search of the Project area was performed by the NWIC. Results were returned on April 19, 2023. (File No.22-1518).			

SPR CUL-2 Contact Geographically Affiliated Native American Tribes: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
The latest Native American contact list was obtained from the Native American Heritage Commission (NAHC) on May 10, 2023. This response also included search results from NAHC's sacred lands database. On June 6, 2023, letters inviting the tribes to consult were mailed to the eight tribes indicated by NAHC. These letters identified the location, treatment types, purpose of the treatments, and requested information concerning the location of any cultural resources that may exist within the			

project area. While three responses were received from those contacted, no specific cultural resources concerns were identified within the project area nor were there objections to proposed treatments by any Native American tribes

SPR CUL-3 Pre-field Research: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
An archaeologically trained resource professional conducted pre-field research prior to implementing treatments. The research informed archaeological survey design, and prepared the certified archeological surveyor to interpret, record, and evaluate these findings within the context of local history and prehistory. A review of site records from the NWIC, study maps, pertinent ethnographic, archaeological, and historical literature specific to the area being studied, aerial photos, and interviews were completed to maximize the effectiveness of the study.			

SPR CUL-4 Archaeological Surveys: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
An archaeological survey was conducted for the project area by an archaeologically trained resource professional on May 9th, 2023. A report was completed on June 30, 2023.			

SPR CUL-5 Treatment of Archaeological Resources: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior - During	MRC
SPR CUL-5 applies, see Attachment A.			

SPR CUL-6 Treatment of Tribal Cultural Resources: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior - During	MRC
SPR CUL-6 applies, see Attachment A.			

SPR CUL-7 Avoid Built Historical Resources: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	No	N/A	N/A
SPR CUL-7 is not applicable as the NWIC records search and archaeological survey conducted on May 9, 2023 did not identify any built historical resources.			

SPR CUL-8 Cultural Resource Training: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
SPR CUL-8 applies, see Attachment A.			

MM CUL-2: Protect Inadvertent Discoveries of Unique Archaeological Resources or Subsurface Historical Resources	Yes	MRC During	MRC
MM CUL-2 applies, see Attachment A.			

3.5 EC – Biological Resources

Discussion:

Pursuant to SPR BIO-1, a BBWA biologist conducted a data review of project-specific biological resources, including habitat and vegetation types, and special-status plants, special-status wildlife, and sensitive habitats (i.e., sensitive natural communities, wetlands) with potential to occur in the project area. U.S. Forest Service Existing Vegetation (EVEG) mapping was used to identify the habitat/vegetation types within the project area. The project area is located in the Northern California Coast ecoregion. The project area ranges in elevation from approximately 540' and 1021' feet. Habitat types within the project area and total acreage of each type are presented in Table B-1 (Attachment B).

A list of special-status plant and wildlife species with potential to occur in the project area was compiled by completing a review of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the U.S. Geological Survey (USGS) quadrangles containing and surrounding the project area (12 quadrangles total; CNDDB 2023; CNPS 2023); the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2023); and Appendix BIO-3 in the PEIR (Volume II) for special-status plants and wildlife that could occur in the Northern California Coast ecoregion. A list of sensitive natural communities with potential to occur in the project area was compiled by completing a CNDDB search of the USGS quadrangles containing and surrounding the project area (CNDDB 2023) and reviewing Table 3.6-16 for sensitive natural communities that could occur in the Northern California Coast ecoregion in the habitat types mapped in the project area.

BBWA conducted reconnaissance surveys on the entire Project area on January 20, 2023, to identify and document sensitive resources (e.g., aquatic habitat, riparian habitat, sensitive natural communities) and to assess the suitability of habitat in the project area for special-status plant and wildlife species. Mapped habitat types were verified where possible, and incidental wildlife observations were recorded. Follow-up protocol-level sensitive natural communities and protocol-level special status plant surveys occurred on May 9, 2023 and July 23, 2023 as per SPR BIO-3 and SPR BIO-7. A complete list of all plant and wildlife species with potential to occur in the vicinity of the proposed project was assembled based on the BBWA biologist's review of occurrence data,

species ranges, habitat requirements for each species, results of the reconnaissance-level survey, habitat present within the project area as assessed during reconnaissance surveys, and results of protocol-level special status plant and sensitive natural communities surveys. 14 of the special-status plants and 24 of the special-status wildlife from the complete PEIR list of Northern California Coast special-status species were determined to occur or have the potential to occur in the project area (Table B-2). These species are discussed in detail under Impact BIO-1 (special-status plants) and Impact BIO-2 (special-status wildlife).

Initial discussions with CDFW were held on March 30, 2023 during the planning phase of this project. Pursuant to MM BIO-2a, BBWA sent a consultation letter to CDFW on May 22, 2023. Comments were received and incorporated on June 28, 2023. Also per the same measure, BBWA sent a consultation letter to the U.S. Fish and Wildlife Service (USFWS) on June 30, 2023. No response was received from the USFWS.

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

Initial vegetation treatments and maintenance treatments could result in direct or indirect adverse effects on the 14 special-status plant species with suitable habitat in the project area. Potential impacts resulting from maintenance activities would be similar to those resulting from initial vegetation treatments, because the same treatment activities would occur. However, treatment frequency and intensity can determine whether effects on certain plant species are beneficial or adverse. Initial treatment that reduces overgrowth, opens the tree canopy to allow more light penetration, or removes invasive competitors can be beneficial for some special-status plant populations; however, repeated treatments at too frequent intervals can have adverse effects on those same special-status plants.

SPR BIO-7 would apply to all treatment activities, including maintenance treatments; it requires protocol-level surveys for special-status plants to be conducted pursuant to Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018a) before implementing treatments in any habitat potentially

suitable for special-status plants. Protocol-level surveys for plants were conducted on May 9, 2023 and July 23, 2023. Results of the plant protocol-level surveys are good for five years. Following review of occurrence data, species ranges, habitat requirements for each species, results of the reconnaissance-level survey, habitat present within the project area as assessed during reconnaissance surveys, and results of protocol-level special status plant surveys, it was determined that zero special-status plants listed under ESA or CESA are within the project area. During a botanical survey on May 9, 2023, a small population of Piperia sp. was recorded within the treatment area but they could not be identified to species due to a lack of open flowers. The site was revisited on July 23, 2023, but all the plants were gone (likely eaten by an herbivore). The site will be treated as the non-listed special status White-flowered rein orchid (*Piperia candida*) unless future surveys determine otherwise. The remaining 13 special-status species that have the potential to occur within the project area were not detected during protocol-level surveys on May 9, 2023 and July 23, 2023.

Mitigation Measure BIO-1a does not apply as there are no special status plants listed under ESA or CESA within the project area.

Mitigation Measure BIO-1b applies to the remaining 1 special-status plant species not listed under ESA or CESA (*Piperia candida*). As per MM BIO-1b, the *Piperia* will be buffered by a no-disturbance buffer of 50' marked by high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations. *Piperia* is a geophyte so treatments can be conducted inside the 50' buffer during its dormant season of September – March provided that treatment activities will not damage the stump, root system, or other underground parts or destroy the seedbank. No fire ignition will occur within the 50' *Piperia* buffer.

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, within the boundary of the project area, habitat characteristics are essentially the same within and outside the treatable landscape (e.g., no resource is affected on land outside the treatable landscape that would not also be similarly affected within the treatable landscape), and the treatment activities and intensity of disturbance as a result of implementing treatment activities are consistent with those analyzed in the PEIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential impact on special status plants is also the same, as described above.

SPRs applicable to the proposed project are BIO-1, 2, 7, 9; AQ-3, 4; and GEO-1, 3, 4, 5, 7. Mitigation measures BIO-1a and BIO-1b are also applicable to the proposed project.

Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	Impact BIO-2, 3.6	PS / PSU	SPR BIO-1, 2, 3, 4, 5, 8, 10, 11 SPR HYD-1, 3, 4, 5 SPR HAZ-5, 6 MM BIO-2a, 2b, 2e, 2g, 3a, 3b, 3c, 4	Yes	LTSM	☒

According to the CNDDB BIOS search and reconnaissance-level surveys there is one special-status wildlife species known to occur within the Project area (Foothill yellow-legged frog - north coast DPS) and eighteen special status wildlife species that may occur within the Project area (Pacific tailed frog, western pond turtle, northern red-legged frog, southern torrent salamander, red-bellied newt, golden eagle, northern harrier, American peregrine falcon, bald eagle, osprey, Coho salmon - southern Oregon/Northern California ESU, Steelhead - northern California DPS summer-run, pallid bat, Sonoma tree vole, Townsend's big-eared bat, Western red bat, Pacific fisher, and American badger). HCRCD sent consultation requests to CDFW and USFWS on all special-status species. The USFWS did not respond to requests for consultation. CDFW responded to the request for consultation on June 28,2023 and HCRCD has incorporated feedback from CDFW into the following recommendations:

Golden Eagle

Golden eagles inhabit a variety of habitats including forests, canyons, shrub lands, grasslands, and oak woodlands. Nests are constructed on platforms on steep cliffs or in large trees. Golden Eagles nest in open and semi-open habitat, but also may nest at lower densities in coniferous habitat when open space is available, (e. g. fire breaks, clear-cuts, burned areas, pasture-land, etc.). Golden Eagles avoid nesting near urban habitat and do not generally nest in densely forested habitat. There are 10 recorded CNDDB occurrences for golden eagle nests within a 9-quad query of the treatment area, the closest observation located ~1.25 miles to the north; all nests were associated with old-growth Douglas-fir stands. Golden eagles may forage within the treatment area; however, suitable nesting habitat for this species is lacking within the treatment area.

Focused nest tree surveys will be conducted up to three weeks prior to treatments. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, typically one day. The survey will be conducted during the day, as golden eagles are diurnal. The survey will include walking throughout the proposed treatment area and visually searching for nests and eagles exhibiting behavior that is typical of breeding (e.g. delivering food). The surveyor will pay particular attention to cliffs and large trees near open areas, as these areas are the preferred nesting sites of golden eagles. A golden eagle nest is a large platform nest that is often ten feet across by three feet high of sticks, twigs, and greenery. If a golden eagle nest is detected during focused surveys, the project proponent will establish a buffer zone that is a minimum of eight acres in size. During the critical period for golden eagles (January 15 through April 15 for active nests; and extended from April 15 through September 1 or until the birds have fledged for occupied nests) no treatment activities will occur within the buffer zone. Outside of this critical period, treatment activities will be permitted except that all nest trees, designated perch trees, screening trees, and replacement trees, shall be left standing and unharmed.

Maintenance of habitat function for golden eagles would require open terrain for hunting including grasslands and early successional stages of forest and shrub habitats. Dense forest stands reduce prey visibility and opportunities for low level hunting flights, the eagle's dominant foraging mode (Hunt, 1995). Golden eagles also frequent large trees on edges of open areas for cover and as a perch where they may occasionally search from and fly directly to prey (Carnie, 1954). Habitat function for golden eagles would be maintained and improved because thinning and burning the meadow in the project area will reduce conifer encroachment and promote an open, grassland habitat that allows for hunting. Treatment activities will focus on removing trees less than 16 inches DBH. Trees greater than 16 inches DBH are most likely to be used by golden eagles for high hunting perches. Thinning smaller trees has also been shown to promote residual tree growth (Zald et al, 2022), and encouraging the growth of larger trees across the project area will increase the number of viable nesting trees. Treatments have been designed to promote the late successional forest habitat that Golden Eagles rely on.

Northern Spotted Owl

Northern Spotted Owls have been found in a wide variety of forest types, and generally use older structurally complex forest types for nesting, roosting and foraging activities. Throughout their range and across all seasons, spotted owls consistently concentrated their foraging and roosting in old-growth or mixed-age stands of mature and old-growth trees. Exceptions were found, but even they tend to support the usual observations that spotted owls nest in stands with structures characteristic of older forests. Structural components that distinguish superior spotted owl habitat include: a multilayered, multispecies canopy dominated by large (>30 inches dbh) conifer overstory trees, and an understory of shade-tolerant conifers or hardwoods; a moderate to high (60-80 percent) canopy closure; substantial decadence in the form of large, live coniferous trees with deformities such as cavities, broken tops, and dwarf mistletoe infections; numerous large snags; ground cover characterized by large accumulations of logs and other woody debris; and a canopy that is open enough to allow owls to fly within and beneath it.

Foraging habitat may contain the typical older forest components of nesting and roosting habitat, but may also include younger forests and hardwood stands, as well as more open areas. Overall, foraging habitat consists of areas where prey species occur and are available for capture by owls. Northern spotted owls often forage near transitions between early- and late-seral stage forest stands in northern California, likely where prey species are more abundant or more readily available.

Measures to Avoid and Reduce Impacts

HCRCD consulted with CDFW and was approved to implement a modified survey consisting of a single Daytime Stand Search (DTS) conducted during the breeding season (February 1 to July 31). If a NSO occupied site is detected during the DTS survey, a 0.25-mile seasonal restriction on treatments (except for road use after July 9th) will apply to every NSO activity center during the breeding season, unless it is determined via a site monitoring visit "activity center search" (Revised 2011 NSO Survey Protocol), that NSO are not nesting, or nesting failure has occurred. If it cannot be determined whether NSO are nesting, or nesting failure cannot be determined, the 0.25-mile seasonal restriction will stay in effect for treatments until after July 31st. For additional protection measures, refer to USFWS NSO-Take Avoidance Analysis 'Attachment A' 11/1/2019.

Treatments will not degrade suitable habitat from a higher habitat classification to a lower one (e.g., nest/roost habitat will not be reduced below basal area ≥100² feet per acre of trees ≥11" DBH, ≥60% canopy closure of trees that are ≥11" DBH). Treatment activities will focus on removing trees less than 16 inches DBH.

Potential spotted owl nest trees e.g., large trees with blown out tops or cavities, will not be targeted by treatments. If present, these trees will be identified and protected pursuant to *Mitigation Measure BIO-2a (Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species),* which requires that these habitat features are marked and that treatments are designed to minimize or avoid their loss or degradation during treatments.

Maintenance of Habitat Function
Habitat function for northern spotted owl will be maintained through the retention of forest structural attributes (e.g., high canopy cover, understory structure, high average tree DBH, downed woody debris) required for spotted owl foraging, nesting, and roosting activities. The proposed treatments – reducing ladder fuels and applying low-intensity prescribed fire- are designed to result in conditions that northern spotted owl evolved with before fire suppression and logging – dynamic ecological processes, complex, mature forests, and ecotone foraging habitats. Large scale, high severity fire is a major threat to northern spotted owls (Wan et al. 2017). Low-intensity prescribed fire treatments are intended to restore natural fire regimes and reduce the probability of uncharacteristically severe fire effects.

American Peregrine Falcon

In Humboldt County habitat for American peregrine falcons include redwood, montane hardwood conifer, and coastal scrub habitat. Coastal cliffs, riverine bluffs and other rocky outcroppings, as well as large, old growth trees provide nesting habitat for peregrine falcons (Buchanan et al. 2014). Nest sites are frequently located near areas containing prey, including rivers, tidal mud flats, beaches and open water (Morata, 2018). Shorebirds and waterfowl are an important component of peregrine falcon diet, and peregrine falcons prefer open hunting areas (Morata, 2018). This species may forage within the treatment area in the open grassland or oak woodlands. Potentially suitable nesting habitat exists adjacent to the project area on cliffs along the Upper North Fork of the Mattole River.

Focused surveys for occupied sites will be conducted up to three weeks prior to treatments. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, typically one day. The survey will be conducted during the day, as American peregrine falcons are diurnal. The survey will include walking throughout the proposed treatment area and visually searching for occupied sites and birds exhibiting behavior that is typical of breeding (e.g., delivering food). The surveyor will pay particular attention to any cliffs near the Upper North Fork of the Mattole River or other open sites. The surveyor will also pay particular attention to any old nests of other raptors in the project area. Peregrine falcons do not build nests like most other birds, instead they lay their eggs in a “scrape” or shallow indentations high on a cliff side or use the old nest of another bird.

If an American peregrine falcon nest is detected during focused surveys, the project proponent will establish a no disturbance buffer zone around a peregrine occupied site. The buffer zone shall be a minimum of 10 acres in size. During the critical period for peregrine (February 1 through April 1 for active nests and is extended until July 15 for occupied nests) no treatment activities will occur within the buffer zone. Outside of this critical period, treatment activities will be permitted except that all nest trees, designated perch trees, screening trees, and replacement trees, shall be left standing and unharmed.

Because the project area is outside the coastal zone, treatments will not impact shorebird populations or shorebird habitat—an important prey of the peregrine falcon. Thinning and burning treatments will maintain and improve potential inland hunting habitat for this species by removing encroaching Douglas fir from meadow edges and the open grassland. Treatments are focused on removing small (<16” DBH) conifers. Thinning smaller trees has been shown to promote residual tree growth (Zald et al, 2022), and encouraging

the growth of larger trees and promoting late successional forest characteristics will increase the number of viable peregrine falcon nesting trees.

Bald Eagle

Bald eagles' preferred habitat includes ocean shore, lake margins, and rivers for both nesting and wintering. Most nests are within one mile of water. This species nests in large, old-growth, or dominant trees with open branches. There are numerous CNDDB occurrences for bald eagles in Humboldt County primarily associated with Humboldt Bay and the larger river systems, though none reported within the 9-quad search surrounding the treatment area. There is potential nesting habitat in the older stands around the Upper North Fork of the Mattole River, foraging near the project area is probably lower quality than along the Mattole River Mainstem and coastal areas. Occurrence is unlikely but possible.

Focused surveys will be conducted up to three weeks prior to treatments. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, typically one day. The survey will be conducted during the day, as bald eagles are diurnal. The survey will include walking throughout the proposed treatment area and visually searching for occupied sites and birds exhibiting behavior that is typical of breeding (e.g., delivering food). The surveyor will pay particular attention to areas within 1 mile of water that have large, old-growth, or dominant live trees with open branches. Bald eagle nests are typically 5 to 6 feet in diameter and 2 to 4 feet tall, and ranging in shape from cylindrical to conical to flat, depending on the supporting tree. If a bald eagle nest is detected during focused surveys, the project proponent will establish a buffer zone that is at least 10 acres in size. During the critical period for bald eagles (January 15 until either August 15 or four weeks after young have fledged) no treatment activities will occur within the buffer zone. Outside of this critical period, treatment activities will be permitted except that all nest trees, designated perch trees, screening trees, and replacement trees, shall be left standing and unharmed.

The bald eagle is an opportunistic, generalized predator and scavenger adapted to aquatic habitats (Buehler 2000). Breeding bald eagles require relatively large bodies of water containing resident populations of suitable-sized fish, generally larger than 200 mm total length (Jackman, et al. 1999). The majority of bald eagles in California breed near reservoirs (Detrich 1986). Waterfowl can supplement the diet of bald eagles, especially in the winter and early nesting season (Jackman and Jenkins, 2004). In general, bald eagles require a large tree (or cliff or rock outcrop) to accommodate a large nest in a relatively secluded location. The species typically chooses a tree in the overstory, often the largest in the stand. In a study of 95 bald eagle nesting sites in California, most nest trees (81%) were over 100 feet tall and nest trees had a mean DBH of 43 inches (Jackman and Jenkins, 2004). Most nests (87%) were located within one mile of a waterfront (Jackman and Jenkins, 2004). One third was within 0.1 mi of water, and none was greater than two miles from water (Jackman and Jenkins, 2004). Notably, total canopy closure of the adjacent forest stand, as estimated from aerial photography, was below forty percent for most (75%) sites, indicating that "dense forest is not a prime requirement for nesting bald eagles in California" (Lehman, 1979). Due to these habitat preferences, maintenance of habitat function for eagles would require the retention and promotion of large trees near ocean shores, lakes, reservoirs, or rivers.

Habitat function for bald eagles would be maintained and improved throughout the duration of the project. The project does not propose treatments within one mile of any ocean shore, lake, or reservoir habitat. The project area does overlap with the Upper North of the Mattole River and a small tributary at the south end of the project area. Implementation of SPR HYD-4 will protect watercourses and ensure that the bald eagle's prey base is protected. Treatment activities would focus on removing ladder fuels less than 16 inches DBH. Trees greater than 16 inches DBH are the most likely features to be used by bald eagles as a high hunting perch or as a nest site.

Thinning smaller trees has also been shown to promote residual tree growth (Zald et al, 2022), and encouraging the growth of larger trees across the project area will increase the number of viable nesting trees.

Marbled Murrelet

Marbled murrelets are pelagic birds that spend the majority of their lives at sea, but nest inland in trees within 60 km of the coast. In California the species ranges from the Oregon border south to Santa Cruz County. Nesting habitat in this part of its range is characterized by large, old-growth trees with large limbs (>10 cm) for nesting platforms (Hamer and Nelson 1995). The marbled murrelet nesting season is from mid-May through mid-September. There are 10 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area, all associated with Humboldt Redwood State Park, 9 miles to the east. The project area contains young conifer stands, oak woodlands, and grasslands which are not suitable habitat for marbled murrelet.
No surveys are warranted as suitable habitat for this species is not present within the treatment area or adjacent forests.

Listed Salmonids

Listed salmonids that potentially occur in the project area include the coho salmon (southern Oregon/northern California Coast ESU), summer-run steelhead (Northern California DPS), and chinook salmon (California Coastal ESU). Salmonids require cool, clean water, and beds of loose, silt-free, coarse gravel for spawning. The species also needs adequate cover and sufficient dissolved oxygen. Suitable habitat exists for all three species in the small section of the Upper North Fork Mattole River that intersects the northern edge of the project area. This section of the project area is not accessible due to topographic features and no treatments will occur within 200 feet of this watercourse. Potential habitat for steelhead exists in a small tributary that runs through the treatment area, although the lack of year-round flow in some years limits the potential. Coho and chinook salmon are not expected to occur within this watercourse due to the high gradient of that stream (~20%). No fish were observed in this watercourse during reconnaissance surveys. It has been designated a Class I by the RPF. A small quantity of encroaching Douglas-fir has been identified for removal from the WLPZ.

No surveys or additional protection measures are warranted. Habitat for listed salmonids will be protected by SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones and SPR-BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function (see Attachment A). Habitat function for listed salmonids will be maintained because treatments would not occur within the stream bed or bank and treatments within WLPZs would be limited pursuant to SPR HYD-4: Identify and Protect Watercourse and Lake Protection Zones and SPR BIO-4: Design treatment to Avoid Loss or Degradation of Riparian Habitat Function. Fuel treatments will aid in reducing habitat loss by avoiding high-severity megafires.

Listed Bumble Bees

Western Bumble Bee

The western bumble bee (*Bombus occidentalis occidentalis*) was designated a candidate for listing as endangered under the California Endangered Species Act by the California Fish and Game Commission on September 30, 2022. Bumble bees, including the western bumble bee, require habitats rich with floral resources. Since bumble bee colonies obtain all of their nutrition from pollen and nectar, they need a continuous supply of flowers during the entirety of the colony's life (spring through fall). Suitable habitat is characterized by open meadows with continuous availability of floral resources and nesting/overwintering sites in abandoned rodent burrows. As generalist foragers, bumble bees do not depend on any one flower type, but perennial flowering plants and native bunch grasses provide higher quality habitat than annual plants. The annual cycle for this species includes an overwintering and nesting/flight period.

In California, the nesting/flight period (the time when bumble bees actively forage) for the western bumble bee is from February to late November. Western Bumble bees mainly nest underground in abandoned rodent nests just below the surface. Therefore, viable nesting sites depend on the habitat's rodent abundance (Xerces Society Listing Petition, 2018).

The western bumble bee was once very common in the western United States but has recently undergone a dramatic decline in abundance and distribution, and is no longer present across much of its historic range. (Xerces Society Listing Petition, 2018). The treatment area is within the historic range of the western bumble bee. There are numerous historic (<2003) CNDDB observations for the western bumble bee from Humboldt County, including a July 30, 1976 observation that is located approximately 11 miles to the west of the treatment area near the mouth of the Mattole River. The nearest extant population was detected in 2015 and is 41 miles to the Northeast, on South Fork Mountain in Eastern Humboldt County (CNDDB 2023). This population was found at 5,300 feet elevation, which is consistent with reports that the species is now largely confined to high elevation sites (Xerces Society Listing Petition, 2018).

A recent occupancy modeling analysis by USGS found the probability of occupancy by the western bumble bee has declined 93% over the last 21 years (Graves et al. 2020). Recent surveys from the Pacific Northwest Bumble Bee Atlas in Oregon, Washington, and Idaho have found that the western bumble bee's relative abundance has declined significantly throughout its former range in those states and has been lost from Pacific coastal areas of its historic range, experiencing an 80% decline in California (Hatfield and Jepsen 2021).

The western bumble bee has the potential to occur in the treatment area, however the area has an extremely low probability of occupancy. Roughly 1/3 of the project area is comprised of open annual grassland habitat that may have at one time provided beneficial habitat to many flower-dependent species. However, these areas have become dominated by non-native grass species – the result of fire suppression and intensive sheep grazing over the last 100 years – that have replaced many of the native flowering forbs that would have provided the forage necessary to support these bumble bee species. These non-native annuals do not currently provide continuous floral resources but suitable habitat is potentially restorable.

Crotch's Bumble Bee

The Crotch's bumble bee (*Bombus Crotchii*) was designated a candidate for listing as endangered under the California Endangered Species Act by the California Fish and Game Commission on September 30, 2022. Bumble bees, including the Crotch's bumble bee, require habitats rich with floral resources. Since bumble bee colonies obtain all of their nutrition from pollen and nectar, they need a continuous supply of flowers during the entirety of the colony's life (spring through fall). Suitable habitat is characterized by open grassland and scrub with continuous availability of floral resources (Xerces Society Listing Petition, 2018).

Like the western bumble bee, the Crotch's bumble bee is considered to be a generalist forager. Its preferred forage are milkweeds, lupines, phacelias, medics, sages, dusty maidens, *Clarkia*, poppies, and wild buckwheat (Hatfield et al. 2015b). The Crotch's bumble bee has a very short tongue, and thus is best suited to forage at open flowers with short corollas. The annual cycle for this species includes an overwintering and nesting/flight period. In California, the nesting/flight period (the time when bumble bees actively forage) of the Crotch's bumble bee is from late February to late October. Although little is known about their nest and overwintering sites, this species is thought to primarily nest underground. Bumble bees generally overwinter in disturbed soil or under leaf litter or other forest debris (Xerces Society Listing Petition, 2018).

The treatment area is within the historic range of the Crotch's bumble bee. There is a single observation for the Crotch's bumble bee in

Humboldt County from 1976 (CNDDB 2023). This observation was recorded near Mad River Beach in northern Humboldt County, approximately 45 miles to the north of the Marshall treatment area. This species historically occurred from the northern Central Valley to Baja Mexico but has been extirpated from 70% of its range in California. It currently persists in suitable habitats in coastal southern California as well as a few isolated populations in the northern Central Valley around Sacramento, Chico and to the west in Mendocino National Forest (NatureServe 2019; Xerces Society et al. 2019). The nearest extant population is 140 miles to the south in Yolo county and was documented in 2003 (CNDDB 2023).

The Crotch's bumble bee has the potential to occur in the treatment area, however the area has an extremely low probability of occupancy. Roughly 1/3 of the project area is comprised of open annual grassland habitat that would have at one time provided beneficial habitat to many flower-dependent species. However, these areas have become dominated by non-native grass species – the result of fire suppression and historic sheep grazing over the last 100 years – that have outcompeted many of the native flowering forbs that would have provided the forage necessary to support these bumble bee species. These non-native annuals do not provide continuous floral resources but suitable habitat is potentially restorable.

Maintenance of Habitat Function for Crotch's Bumble Bee and Western Bumble Bee
While the project area is outside the extant range of the western bumble bee and Crotch's bumble bee, the habitat function for these species would be enhanced and maintained because treatment activities will create a more open understory in the forested area, making it more suitable for recruitment of flowering plants (CALFIRE 2022).

The proposed non-commercial fuels reduction and the reintroduction of a natural fire regime is expected to result in a net benefit to vulnerable populations of bumble bees. Prescribed burns have been shown to reduce negative impacts from exotic plant species and increase native plant establishment and performance (Alba et al., 2015). Research results support the use of low-intensity prescribed fire for enriching floral resources for bumble bees and suggest that prescribed fire has net neutral or positive short-term effect on bumble bees (Gelles et al. 2023, Tai et al. 2022). Without treatment, conifer encroachment of the oak woodlands and annual grasslands will continue unabated. Continued fire suppression would not only result in habitat degradation, but also render the habitat susceptible to catastrophic, large scale, and high intensity fires due to increases in fuel loads, tree density, and fire intolerant species (Huntzinger 2003). Catastrophic, large scale, and high intensity fires may be particularly harmful to already vulnerable populations of bumble bees (Xerces Society Listing Petition, 2018).

In addition, HCRCD consulted with CDFW and was approved to modify Mitigation Measure BIO-2g. The modified MM is outlined in Attachment A.

Pacific tailed frog

In California, tailed frogs occur in permanent streams of low temperatures in conifer-dominated habitats. Tailed frogs occur more frequently in mature or late-successional stands than in younger stands. Permanent water is critical because the aquatic larvae require 2 to 3 years to transform and tadpoles require water below 15° C (59°F). Adults forage along stream banks and occasionally underwater. Tailed frogs are primarily nocturnal. During the day adults seek cover under submerged rocks and logs in the stream or close to the stream. There are 12 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area; the closest observation location is ~3.75 miles to the south. Reconnaissance surveys conducted during watercourse classification indicated that marginal suitable habitat exists within the plan area. No tailed frogs or juveniles were observed in the project area. Habitat suitability

is limited by a lack of year-round streamflow and a large proportion of the drainage is grassland with high thermal exposure. Fuels reduction and prescribed burning will reduce the probability of high-intensity, high-severity wildfires that would 1) greatly reduce riparian canopy closure and raise water temperatures, and 2) increase sediment deposition from debris torrents (Ice et al., 2004). Research has shown that thinning and prescribed fire treatments can have no effect or mildly increase water quantity and quality, benefiting aquatic species (Roche et al., 2020, Robles et al., 2014). No surveys are warranted as habitat for this species is protected by existing watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Habitat function will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process.

Northern red-legged frog

Suitable habitat for the northern red-legged frog includes humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover. This species is generally found near permanent water, but can also be found far from water, in damp woods and meadows. Adult frogs radiotracked from March to July in Humboldt County were detected on land 90% of the time and usually within 5 meters of water, though animals were found up to 80 m away from water. Individuals have been found considerable distances from breeding sites on rainy nights (Thomson et al. 2016). Eggs are deposited in permanent pools attached to emergent vegetation. Reproduction occurs from late November to early April. Eggs hatch between July and September. There are 10 CNDDB occurrences for this species within a 9(12)-quad query and suitable habitat for this species is present within the treatment area. Reconnaissance surveys conducted during watercourse classification indicated that suitable habitat does exist within the THP area. Habitat is found in the perennial stream, but no ponds or wetlands were observed in the project area. No surveys are warranted as habitat where this species primarily lives and reproduces is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Broadcast burning is unlikely to occur during the conditions when red-legged frogs are most likely to be dispersing outside the riparian areas (at night and during rainy conditions) therefore, no seasonal restrictions are warranted. Habitat function for special-status amphibians will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process.

Foothill yellow-legged frog - north Coast DPS

The foothill yellow-legged frog occurs in the Coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles Co. The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including partly-shaded, shallow streams & riffles with a rocky substrate. In all habitats, the species is seldom found far from permanent streams with banks that can provide sunning sites. Normal home ranges are less than 33 feet in the longest dimension (Thomson et al. 2016). Occasional long-distance movements 165 feet may occur during periods with high water conditions. There are numerous CNDDB occurrences for this species in the nearby Mattole River. Wheeler and Welsh (2008) observed adult frogs in breeding and non-breeding habitats regardless of season. Two adult Foothill yellow-frogs were observed in the unnamed tributary of the Upper North Fork Mattole River that bisects the project area on 4/12/2023. No surveys are warranted as the aquatic habitat where this species primarily lives and reproduces is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Broadcast burning is unlikely to occur during the conditions when yellow-legged frogs are dispersing outside the riparian areas (high water conditions) therefore, no seasonal restrictions are warranted. Habitat function for special-status amphibians will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process

Southern Torrent salamander

The southern torrent salamander occurs in coastal forests of northwestern California south to Mendocino County. This species can be found in cold, clear headwaters to low-order streams with loose, course 23 substrates (low sedimentation), in humid forest habitats with large conifers, abundant moss, and >80% canopy closure (Welsh & Lind 1996). This species does not have Seasonal movements or migration and does not leave the splash zone of the watercourse. Reconnaissance surveys conducted during watercourse classification indicated that marginal suitable habitat exists within the plan area. No southern torrent salamanders were observed in the project area. Habitat suitability is limited by a lack of year-round streamflow and a large proportion of the drainage is grassland with high thermal exposure. No surveys warranted as the aquatic habitat where this species primarily lives and reproduces is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Habitat function for special-status amphibians will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process.

Red-bellied newt

The red-bellied newt ranges within Sonoma, Mendocino, Humboldt and Lake counties. It primarily inhabits redwood forest, but can also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Red-bellied newts are primarily active at night and migrate to streams during autumn rains, returning to terrestrial habitat in the spring. They may migrate a mile or more to and from the breeding stream. Migratory movements stimulated primarily by rain, but in heavy amounts rain inhibits movement toward the stream. Rapid streams with rocky substrate are required for breeding and egg-laying. Aestivation in terrestrial habitat takes place during the summer months, where red-bellied newts spend the dry season underground within root channels (Thomson et al. 2016). No surveys are warranted as the aquatic habitat where this species primarily lives and reproduces is protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). Broadcast burning is unlikely to occur during rainy weather when red-bellied newts migrate, therefore, no seasonal restrictions are warranted.

Western Pond Turtle

Pond turtles are mostly aquatic but will leave water to travel to surrounding upland habitats to nest, overwinter, bask and aestivate. Eggs are laid in excavated nests beneath leaves or soil up to 400 meters (0.25 miles) from water. Habitat suitability is defined by the presence of water, in addition to deep pools and slow moving water. Basking sites, aquatic refugia, streamside refugia, and upland nesting areas are also associated with pond turtle habitat (USGS 2006a). Aquatic habitats are occupied from May-August. September - April is spent overwintering in riparian areas or the uplands. Nesting occurs in the summer (mid-June to mid-July) and hatchlings overwinter in the nest and emerge the following spring (March). Western Pond Turtles can be encountered in upland habitats at any time of year (Reese and Welsh 1997). There are CNDDB occurrences for this species in the nearby Mattole River. While the Upper North Fork Mattole River is adjacent to the project area, it is separated by a band of steep cliffs that would be impassible to turtles. There are no ponds within or adjacent to the project area. The streams within the project area lack slow moving water, deep pools, and year-round flow, making them marginal habitat. Western Pond Turtles are unlikely to occur in the project area. Fuels reduction and prescribed burning will reduce the probability of high-intensity, high-severity wildfires that would 1) greatly reduce riparian canopy closure and raise water temperatures, and 2) increase sediment deposition from debris torrents (Ice et al., 2004). Research has shown that thinning and prescribed fire treatments can have no effect or mildly increase water quantity and quality, benefiting aquatic species (Roche et al., 2020, Robles et al., 2014).. No surveys are warranted as aquatic habitat for this species is already protected by existing watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or

Degradation of Riparian Habitat Function). The existing survey protocol for Western Pond Turtle is designed to determine presence/absence. Nesting sites are cryptic and no survey methodology exists to identify them, therefore, no seasonal restrictions are warranted. Habitat function for special-status amphibians will be improved because treatments will aid in protecting aquatic habitat against stand-replacing fires while restoring an essential ecological process.

Northern harrier

Northern harriers' preferred habitat includes meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; they are seldom found in wooded areas. Harriers nest and forage in grasslands, from salt grass in desert sinks to mountain marshes. There is a single CNDDB observation for northern harriers in Humboldt County, located in the marshlands adjacent to Humboldt Bay. Harriers could use the grasslands within the project area for forage and nesting. Focused surveys will occur up to three weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, typically one day for most proposed treatment activities. The survey will be conducted during the day, as Northern harriers are diurnal. The survey will include walking throughout the proposed treatment area and visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). The surveyor will pay particular attention to shrubby vegetation, as northern harriers nest on the ground in shrubby vegetation. Northern harriers nest primarily in emergent wetlands or along rivers or lakes, but they may nest in grasslands, grain field, or on sagebrush flats several miles from water. A harrier nest is built of a large mound of sticks, often in wet areas. If an active nest is found, for all treatment activities other than prescribed burning, a buffer of a minimum of 100 feet will be implemented around the nest, unless site conditions indicate a larger buffer would be needed. For prescribed burning, the project proponent is proposing to NOT limit treatments to exclusively outside the sensitive period of the species' life history. The sensitive period for the Northern harrier is April to September, with peak activity June through July. The nesting period lasts about 53 days (Craighead and Craighead, 1956). Breeding pairs and juveniles may roost communally in late autumn and winter. For prescribed burning the project proponent WILL implement a 100' buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside the sensitive period for all 14 non-listed special status species. The project proponent is proposing to NOT limit prescribed fire treatments to outside the sensitive period due to the justification that habitat function for Northern harriers is reasonably expected to improve with implementation of the treatment. Treatments will improve foraging habitat for Northern harriers as treatments are designed to restore native grassland habitat and Northern harriers prefer grassland and wetland habitat (Skalos, 2021). Although northern harriers will avoid recently disturbed areas, periodic disturbance may be necessary to maintain suitable habitat (Dechant et al., 2002). Burning or mowing every 3 – 5 years is recommended to maintain habitat for northern harriers and their principal small rodent prey (Dechant et al., 2002). Studies have shown that preserving native grasslands is one of the key management recommendations for Northern harriers (Dechant et al., 2002).

Osprey

Osprey can be found along ocean shores, bays, freshwater lakes, and larger streams. They build large nests in tree-tops or human-made structures (e.g., power poles, radio towers, etc.) within 15 miles of good fish-producing bodies of water. There are 15 CNDDB occurrences for osprey within the 9-quad search surrounding the treatment area, the closest being about 12 miles to the north in the Eel River riparian corridor. It is possible that there are unrecorded osprey nests present along the nearby Mattole River, but suitable habitat for this species is not present within the project area and it is unlikely that osprey will occur in the project area. However, focused surveys for osprey will still be conducted. Focused surveys will occur up to three weeks before treatment. The survey will

occur in a single survey period of sufficient duration to reasonably detect nesting ospreys, typically one day for most proposed treatment activities. The survey will be conducted during the day, as osprey are diurnal. The survey will include walking throughout the proposed treatment area and visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). The surveyor will pay particular attention to large snags and dead-topped trees, as these are the preferred nesting sites for osprey. Osprey nests are large, exposed nests made of sticks and lined with bark, sod, grasses, vines, and/or algae. If an active nest is found, for all treatment activities other than prescribed burning, a buffer zone of at least 5 acres in size around the nest tree shall be established. All nest trees containing active nests, and all designated perch trees, screening trees, and replacement trees, shall be left standing and unharmed. For prescribed burning, the project proponent is proposing to NOT limit treatments to exclusively outside the sensitive period of the species' life history. The sensitive period for the osprey is March 1 to April 15 for active nests. This period is extended from April 15 until August 1 for occupied nests. For prescribed burning the project proponent WILL implement a 5-acre buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside the sensitive period for all 14 non-listed special status species. The project proponent is proposing to NOT limit prescribed fire treatments to outside the sensitive period because habitat function for ospreys is reasonably expected to improve with implementation of the treatment. Treatments will improve habitat for ospreys as treatments are designed to reduce ladder fuels and promote the retention and recruitment of large trees, which are critical for osprey nesting habitat. The proposed treatment activities will focus on thinning trees less than 16" DBH, which has been shown in studies to 25 promote residual tree growth (Zald et al, 2022). In northern California, osprey nest trees ranged from 30 to 81 inches DBH and nest heights averaged 135 feet (Airola and Shubert 1981). In addition, ospreys also need tall, open-branched "pilot trees" nearby for landing before approaching the nest, and for use by young for flight practice (Airola and Shubert 1981). Promoting forest stands capable of large tree growth will improve osprey habitat over time.

Pallid bat

The pallid bat is a locally common species of low elevations in California. The species is most common in open, dry habitats with rocky areas for roosting. Pallid bats may also roost in caves, mines, bridges, barns, and porches. These bats are susceptible to disturbances that cause them to abandon their roosting sites. The CNDDB reports that a single male pallid bat was collected in Richardson Grove State Park in 1936, approximately 0.75 miles to the north of the THP boundary. Rocky areas, caves and crevices do not occur in the project area, therefore the pallid bat is unlikely to occur. No surveys are warranted as suitable habitat for this species is not present within the project area.

Townsend's big-eared bat

Townsend's big-eared bat is found throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings; infrequently have been found roosting in mature/old-growth trees with large basal hollows. They prefer roosting in caves or other similar open spaces. Roosting bats are sensitive to human disturbance. There are 4 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area, the closest record is from 1991 at Avenue of the Giants in Humboldt Redwoods State Park, 12 miles to the Northeast. Potentially suitable habitat for Townsend's big-eared bat is present in the project area. No caves or rock outcrops exist, but a few large trees with basal hollows were noted on the reconnaissance survey. For treatments that will occur during the bat maternity season (April 1 – August 31), focused surveys for special status bat maternity roosts will be conducted within suitable habitat areas. Focused survey will include a visual search for trees with signs of bat occupancy. Any trees with signs of active maternity roosts (e.g. guano accumulation) will receive a 100' buffer. No fuels reduction

treatments will occur within this buffer during the bat maternity season. In addition, all trees >36" DBH with basal hollows will be flagged and protected during all treatments, regardless of bat occupancy. For prescribed burning, the project proponent is proposing to not limit treatments to exclusively outside the sensitive period of the species' life history, which occurs April 1 – August 31 (153 days). For prescribed burning the project proponent will implement a 100' buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside these sensitive periods. Not limiting prescribed fire treatments to outside the sensitive period is justified because habitat function for bats is reasonably expected to improve with implementation of the treatment. Researchers who studied bat response to various levels of fire severity in the Sierra Nevada concluded that restoring fire as a process to fire-prone forests may be important to the proper management of forest bat communities. Results suggest that bats are resilient to landscape-scale fire and that some species are preferentially selecting burned areas for foraging, perhaps facilitated by reduced clutter (vegetation) and increased post-fire availability of prey and roosts (Buchalski et al. 2013).

Western red bat

The western red bat is distinguished from most other California taxa by its foliage roosting habits and thus its apparent reliance on riparian forests for both roosting and foraging. Pierson et al. (2006) describes western red bats as strongly associated with riparian habitats, and roosting primarily in mature hardwood trees (with no conifers being used). They observed that this species roosts preferentially in the canopy foliage of the largest trees, at an average height of 50 feet. Mating occurs in August and September. After delayed fertilization there is an 80-90 day gestation. Births are from late May through early July. Most females bear 2 or 3 young, though the single litter may have 1-5. Lactation lasts 4-6 wk, and the young are capable of flight between 3-6 wk of age. There are 6 CNDDB occurrences for this species within the 9-quad search of the treatment area, all located approximately 7 miles to the northeast within the Bull Creek riparian corridor. Potential suitable habitat is present along the creeks within the treatment area. No surveys are warranted as the riparian hardwood trees where this species primarily lives and reproduces are protected by watercourse protection rules (SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function). A small amount of encroaching Douglas fir trees may be removed from the WLPZ to reduce ladder fuels, but no hardwood trees will be affected. Habitat for the western red bat can be reasonably expected to improve because removing encroaching conifers will maintain the existing hardwood dominance in the riparian areas. Riparian hardwood forest is an essential habitat characteristic for this species.

Sonoma Tree Vole

Because of their exclusive diet of conifer needles, tree voles are restricted to conifer forests. Though they use a variety of tree species, they principally feed on Douglas-fir needles and nest in Douglas-fir trees. Although tree voles occur and nest in younger, second-growth forests, they tend to be more abundant in, and strongly select for, older forests. Nests tend to be found in the larger-diameter trees within a stand. Tree voles live in tree tops and rarely come to the forest floor. Tree voles trip away the resin ducts and eat the remaining portion of the conifer needle. Piles of these resin ducts on the ground may be seen under trees where tree voles have foraged. Nests are constructed of branchlets, discarded resin ducts, and other materials, ultimately shaped into a sphere with interior tunnels. The sonoma red tree vole breeds year-round. Suitable habitat for red tree vole is present within the project area and there are 13 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area. Focused surveys will include observation of any nests or resin ducts. The tree or trees associated with the observations will be flagged and will be avoided during treatments. A no-disturbance buffer or seasonal restriction is not warranted because most tree voles occupy the largest trees, which

are not the focus of the fuels reduction treatments. Low-intensity prescribed burning is unlikely to affect the canopy of large Douglas fir in the treatment area, therefore, tree voles do not require additional protection measures. Habitat function for Sonoma tree vole would be maintained and improved because the proposed treatments are expected to promote late successional forest characteristics that are preferred by this species.

Pacific Fisher

Suitable Pacific fisher habitat is found in intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percentage canopy cover. They need large areas of mature, dense forest and will use cavities, snags, logs and rocky areas for cover and denning. There are three recorded CNDDB occurrences for fishers within a 9-quad query of the treatment area, the closest located just over 3.5 miles to the west. The treatment area could be within the home range of a fisher, though mature forests are generally lacking with the project area. Focused surveys for fisher will be conducted up to three weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect occupied sites (dens), typically one day for most proposed treatment activities. The survey for dens will be conducted during the day. The survey will include walking throughout the proposed treatment area and visually searching for fisher dens. The surveyor will pay particular attention to live tree cavities, hollow logs, hollow snags, brush piles, and upturned trees--as these are the preferred denning sites for fishers. A study in northwestern California of 406 reproductive dens and 154 cavity rest sites found that most reproductive dens (47%) and cavity rest sites (37%) were in live tanoak trees (Matthews et al., 2019). Other species used included California black oak (11%), giant chinquapin (7%), and Douglas-fir (24%) (Matthews et al., 2019). If an active den is found, for all treatment activities other than prescribed burning, a buffer zone of 100' around the occupied site shall be established. For prescribed burning, the project proponent is proposing to NOT limit treatments to exclusively outside the sensitive period of the species' life history. The sensitive period for the Pacific fisher is February through late autumn. Pacific fisher kits are born February through May, and kits remain with the female until late autumn. For prescribed burning the project proponent WILL implement a 100' buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside the sensitive period for all 14 non-listed special status species. The project proponent is proposing to NOT limit prescribed fire treatments to outside the sensitive period due to the justification that habitat function for Pacific fishers is reasonably expected to improve with implementation of the treatment. Treatments will improve habitat for Pacific fishers as treatments are designed to reduce ladder fuels and promote the retention and recruitment of large conifers and hardwoods, which are critical for fisher denning habitat. The proposed treatment activities will focus on thinning conifers less than 16" DBH and promoting oak woodland habitat. In the study from northwestern California, fishers preferred reproductive dens in oaks over conifers (Matthews et al., 2019). In addition, the DBH of trees used averaged 45" for reproductive dens and 32" for cavity rest sites (Matthews et al., 2019). Promoting forest stands capable of large tree growth will improve Pacific fisher habitat over time.

American Badger

American badger habitat is most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. There is a single CNDDBB occurrence for this species within the 9-quad search that is approximately 3.25 miles to the southwest of the project area. The project area contains potential suitable habitat in the meadow in the middle of the project area, though better suitable habitat exists outside the project area in the larger, more contiguous grasslands to the north and the south. Focused surveys for badgers will be conducted up to three weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect occupied sites (dens), typically one day for most proposed treatment activities. The survey

for dens will be conducted during the day. The survey will include walking throughout the proposed treatment area and visually searching for badger dens. The surveyor will pay particular attention to the ground in open grassland areas, as badger reproductive dens are found on the ground, typically in dry, often sandy, soil, and usually in an area with sparse overstory cover. If an active den is found, for all treatment activities other than prescribed burning, a buffer zone of at least 100' around the occupied site shall be established. For prescribed burning, the project proponent is proposing to not limit treatments to exclusively outside the sensitive period of the species' life history. The sensitive period for the American badger is March to September. Badger young are born in March or April, and the young stay with the female for five to six months. For prescribed burning the project proponent will implement a 100' buffer around occupied sites and utilize all available ignition and holding techniques to draw fire away from the occupied site, but due to the extensive sensitive period of all 14 non-listed special status species (January – December) it is not feasible to limit prescribed fire to exclusively outside the sensitive period for all 14 non-listed special status species. These modified disturbance mitigation measures are justified because habitat function for American badgers is reasonably expected to improve with implementation of the treatment. Treatments will improve habitat for American badgers because treatments are designed to improve the native grassland habitat. Badgers prefer to burrow and den in open grasslands and are less likely to burrow and den in the overly dense forest that currently covers a majority of the project area (Huck, 2010; Quinn, 2008). The proposed treatment activities will focus on thinning encroaching conifers from the existing grassland and replanting the grassland with native grass seed in the spring following prescribed fires. Maintaining open, xeric, grassland habitat across California will be critical to maintaining habitat for this special status species.

Conclusion

Initial and maintenance treatment activities (i.e. manual treatments, and prescribed fire) could result in adverse effects on special-status wildlife. The potential for treatment activities to result in adverse effects on special-status wildlife was examined in the PEIR. This impact on special-status wildlife is within the scope of the PEIR because the proposed treatment types and activities and the intensity of disturbance that would result from implementing the proposed treatment activities are consistent with those analyzed in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the potential for special-status wildlife species to occur within the project area is essentially the same within and outside the treatable landscape; therefore, the potential impact related to special-status wildlife species is also the same, 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

SPRs applicable to the proposed project are BIO-1, 2, 3, 4,10; and HYD-1, 4. Mitigation measures BIO-2a, 2b, 2g, and 3a are also applicable to the proposed project. Based on the implementation of the applicable SPRs and Mitigation Measures, this project will result in a less than significant impact on all special status species and will improve their current habitat.

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

Initial and maintenance treatments include manual, prescribed broadcast, and pile burning 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 3.6-16 (Vegetation and Habitat Types within the Treatable Landscape for the Northern California Coast Ecological Section), the project area includes California Wildlife Habitat Relationship (CWHR) classifications Douglas fir (DFR), Montane Hardwood (MHW), and Annual Grassland (AGS). A qualified biologist performed a protocol-level survey of the entire project area following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (CDFW 2018). The survey determined that sensitive natural communities located within the treatment boundaries currently include Oregon white oak woodland as defined in the Manual of California Vegetation (MCV). The survey also determined that other sensitive habitats as described in the PEIR (CalVTP Final PEIR Volume II Section 3.6. p. 67) occur in the project area including riparian habitat.

Sensitive Natural Communities

Oregon white oak woodland

According to the protocol-level survey conducted across the project area there is a total of 37 acres of Oregon white oak woodland (Attachment B, Figure 1). Due to the treatment areas containing Oregon white oak woodlands, as defined in the MCV, Mitigation Measure Bio-3a applies to the proposed project. Treatments in oak woodlands will be designed to restore the natural fire regime and return vegetation composition and structure to their natural condition to improve habitat of the affected oak woodlands. No fuel breaks are proposed within the project area. The impact on Oregon white oak woodlands 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 improving existing Oregon white oak woodlands, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

Riparian Habitat

Based on the results of the CDFW protocol-level survey there is approximately 9.0 acres of riparian habitat within the project area (Attachment B, Figure 2). Riparian habitat is primarily located along the unnamed Class I watercourse on the south end of the project area.

No fuel breaks within riparian habitat will be created as part of this project. In addition, 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. 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 are allowed to spread into WLPZs. Manual treatments are expected to occur within WLPZs designated areas to thin encroaching conifers. Within these locations, SPRs HYD-4 and BIO-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.

The impact on riparian habitats is within the scope of the PEIR because the affected sensitive habitat 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. Conifers that are encroaching into the riparian habitat and actively degrading riparian habitat may be thinned, but no naturally-occur riparian habitat vegetation will be thinned or removed. Based on the implementation of applicable SPRs and the project design with a focus on maintaining existing riparian habitat communities and limiting treatments to removal of uncharacteristic fuel loads, the project would not constitute a substantially more severe significant impact than what was covered in the PEIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the condition of sensitive natural communities is essentially the same within and outside the treatable landscape; therefore, the potential impact related to sensitive natural communities is also the same, as described above. 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.

SPRs applicable to the proposed project are BIO-1, 2, 3, 4, 6, 9; and HYD-4. Mitigation measure BIO-3a is also applicable to the proposed project.

Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	Impact BIO-4, 3.6	PS	SPR BIO-1 SPR HYD-1, 3, 4, 5 MM BIO- 4	Yes	LTSM	☒
A qualified biologist conducted a survey on January 20th and determined that no State or Federally protected wetlands occur within the project area.						

Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	Impact BIO-5, 3.6	PS	SPR BIO-1, 4, 5, 10, 11 SPR HYD-1, 4 MM BIO-5	Yes	LTSM	☒
Initial and maintenance treatments include the use of manual 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 project area is located outside of CDFW mapped essential connectivity areas (CDFW 2023). However, the project area is likely used for local movements by wildlife. The implementation of manual treatments and prescribed fire treatments would not result in landscape level conversion of existing habitat types in the project area. Therefore, treatments would not cause substantial loss of existing movement habitat or result in the construction of any permanent barrier to wildlife movement. Treatment activities may temporarily interrupt wildlife movement in the portions of the project area where activities are occurring; however, the proposed treatments would not be implemented throughout the entire project area in any given year; therefore, land would remain available within the project area to facilitate wildlife movement and a substantial adverse effect on movement would not occur. In addition, pursuant to SPR HYD-4, a WLPZ of 50 to 150 feet adjacent to all Class I and Class II watercourses applies, which would limit the extent of treatment activities within riparian habitat (e.g., retention of at least 75 percent surface cover) that would likely function as a wildlife movement corridor. Most live trees larger than 16 inches would also be retained and pursuant to SPR BIO-3 and SPR BIO-4 treatments in sensitive natural communities and riparian habitats, would be designed to maintain habitat function of these communities. With implementation of SPRs, habitat function within the project area would be maintained or improved and there would not be a substantial change in the existing conditions that facilitate wildlife movement in the project area. No nursery sites were identified during 2023 field visits. However, if during pre-implementation surveys conducted pursuant to SPR BIO-10 wildlife nursery sites are detected, Mitigation Measure BIO-5 would apply to all treatment activities and a non-disturbance buffer would be established around these features, the size of which would be determined by a qualified biologist						

or RPF. SPR BIO-12 would be implemented for treatments that would occur during the nesting bird season and would result in identification and avoidance of any common bird nursery sites.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the potential for wildlife movement corridors and wildlife nurseries within the project area are essentially the same within and outside the treatable landscape; therefore, the potential impact related to wildlife movement corridors and wildlife nurseries is also the same, as described above. This impact on wildlife movement corridors and nursery sites is within the scope of the PEIR because effects on wildlife movement corridors and nursery sites 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. 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..

SPRs applicable to the proposed project are BIO-1, 4, 5, 10; and HYD-1, 4. Mitigation measure BIO-5 is also applicable to the proposed project.

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

The proposed treatment activities of manual treatments and prescribed fire could result in adverse effects on the habitat or abundance of common wildlife. The potential for treatment activities to adversely affect the habitat or abundance of common wildlife was examined in the PEIR.

The vegetation communities (see Table B-1 in Attachment B) within the project area provide nesting habitat for common ground nesting and shrub nesting birds as well as common tree and cavity nesting species. The implementation of treatments in grassland, forest, and woodland habitat would result in temporary disturbance of nesting habitat but would not result in substantial permanent habitat removal or landscape level type conversion. SPR BIO-12 would apply, and for treatments implemented during the nesting bird season (February 1 - August 31), a survey for common nesting birds will be conducted within the project area by a qualified RPF or biologist before treatment activities. If no active bird nests are observed during focused surveys, then additional mitigation would not be required. If active nests of common birds or raptors are observed during focused surveys, disturbance to the nests will be avoided by establishing an appropriate buffer around the nests, modifying treatments to avoid disturbance to the nests, or deferring treatment until the nests are no longer active as determined by a qualified RPF or biologist.Therefore, the adverse effects of the treatments on habitat for common nesting birds or wildlife would be less than significant and habitat function would be maintained.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the habitat characteristics within the project area are essentially the same within and outside the treatable landscape; therefore, the potential impact related to the reduction of common wildlife habitat

and common wildlife abundance is also the same, as described above. This impact on habitat or abundance of common wildlife, including nesting birds, is within the scope of the PEIR because effects on habitat or abundance of common wildlife 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.

SPRs applicable to the proposed project are BIO-1, 2, 3, 4, 5, 12.

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

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. Humboldt County was contacted during the planning phase of this project on June 28, 2023 to ensure compliance with applicable local ordinances and policies.The County responded on July 7, 2023 and stated that the CalVTP is consistent with the California Forest Practices Act and therefore the Marshall Prescribed Burn is exempt from the County's Stream Management Areas and Wetlands Ordinance and Grading Ordinance. There are no other applicable local ordinances.

The potential for the proposed treatments to conflict with local policies is within the scope of the PEIR because vegetation treatment locations, types, and activities are consistent with those analyzed in the PEIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the project area boundary, the existing regulatory conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the potential for conflicts with local policies or ordinances is also the same, as described aboveThis 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.

The SPR applicable to the proposed project is SPR AD-3.

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

The project area is not located within a habitat conservation plan (HCP), a natural community conservation plan (NCCP), or other approved habitat plan area.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the

geographic extent presented in the PEIR. However, the areas outside the CalVTP treatable landscape are also not located within a HCP, NCCP, or other approved habitat plan area. This impact is within the scope of the PEIR because conflict with an HCP or NCCP 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. 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.

Other Impacts to Biological Resources: Would the project result in other impacts to biological resources that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.6.1, "Environmental Setting," and Section 3.6.2, "Regulatory Setting," in Volume II of the Final PEIR). The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental and regulatory conditions pertinent to biological resources that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those considered in the 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.						

Biological Resources SPRs and MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR BIO-1: Review and Survey Project-Specific Biological Resources. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
The California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022) and CDFW's California Natural Diversity Database (CNDDB) (CNDDB 2022) were reviewed on January 18, 2023, for specific information on documented observations of special-status species previously recorded in the project area and vicinity. A search of the CNDDB and CNPS Inventory was conducted for the following U.S. Geological Survey 7.5' quadrangles surrounding the project area: Capetown, Taylor Peak, Scotia, Redcrest, Petrola, Buckeye Mountain, Bull Creek, Weott, Cooskie Creek, Shubrick Peak, Honeydew, Ettersburg. For special status plants, Consortium of California of Herbaria (CCH2 2022), Jepson eFlora (Jepson			

Flora Project 2022), and Calflora (Calflora 2022) were also consulted on January 18, 2023. In addition, Appendix BIO-3 (Tables 9a, 9b, and 19) in Volume II of the Final PEIR was reviewed for sensitive natural communities, habitat information, and special-status plants and wildlife that could occur in the Northern California Coast ecoregion.

Following the database queries, a reconnaissance survey of the project area was conducted on January 20th, 2023. Based on this reconnaissance survey, the database queries, habitat suitability, habitat quality, other reports of occurrence, distance from known detections, other biological factors, consultation with the landowner, and protocol-level special status plant surveys on May 9th and July 23, 2023, it was determined that 14 special-status plants and 24 special-status wildlife species have the potential to occur or are known to occur within the project area. Complete lists of special-status species which have the potential to occur or are known to occur within the project area are presented in Attachment B.

SPR BIO-2: Require Biological Resource Training for Workers. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
SPR BIO-2 applies, see Attachment A.			

SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
A qualified biologist completed a protocol-level survey following the CDFW “Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities” (CDFW 2018) and identified and mapped all sensitive natural communities within the project area (Attachment B, Figure 1). Refer to Impact BIO-3 for an analysis of the sensitive natural communities and other sensitive habitats that occur within the project area.			

SPR BIO-4: Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC During	MRC
MRC, in consultation with a qualified RPF, has designed treatments in riparian habitats to improve habitat function by removing uncharacteristic fuel loads and reducing ladder fuels. A qualified biologist completed a protocol-level survey following the CDFW “Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities” (CDFW 2018) and identified and mapped all riparian habitats within the project area (Attachment B, Figure 2). See all requirements for SPR BIO-4 in Attachment A.			

SPR BIO-5: Avoid Environmental Effects of Type Conversion and Maintain Habitat Function in Chaparral and Coastal Sage Scrub. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	No	N/A	N/A
SPR BIO-5 does not apply to the Project as there is no chaparral or coastal sage scrub habitat within the Project area.			

SPR BIO-6: Prevent Spread of Plant Pathogens. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR BIO-6 applies, see Attachment A.			

SPR BIO-7: Survey for Special-Status Plants. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
A qualified biologist conducted special-status protocol-level plant surveys across the entire project area on May 9th and July 23, 2023. One special status plant was detected during protocol-level surveys (Attachment B, Table B-2). The results of this protocol-level plant survey are good for five years.			

SPR BIO-8: Identify and Avoid or Minimize Impacts in Coastal Zone. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	No	N/A	N/A
SPR BIO-8 does not apply to the project as the project is outside of the coastal zone.			

SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife. This SPR applies to all treatment activities and treatment types, including maintenance activities.	Yes	MRC During	MRC
SPR BIO-9 applies, see Attachment A.			

SPR BIO-10: Survey for Special-Status Wildlife and Nursery Sites. If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
See species-specific survey requirements and biological survey protocols for special-status wildlife in Impact BIO-2.			

SPR BIO-11: Install Wildlife-Friendly Fencing (Prescribed Herbivory). This SPR applies only to prescribed herbivory and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR BIO-11 does not apply to the project as there is no prescribed herbivory included in the project.			

SPR BIO-12. Protect Common Nesting Birds, Including Raptors. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
SPR BIO-12 applies, see Attachment A.			

MM BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA	No	N/A	N/A
A qualified biologist conducted a reconnaissance level survey on January 20th, 2023. The qualified biologist also conducted protocol-level plant surveys across the entire project area on May 9th and July 24, 2023. No special-status plants listed under ESA or CESA were identified, therefore MM BIO-1a does not apply.			

MM BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA	Yes	MRC Prior-During	MRC

MM BIO-1b applies, see Attachment A.

MM BIO-1c: Compensate for Unavoidable Loss of Special-Status Plants	No	N/A	N/A
No significant impacts on listed or non-listed special status plants will occur and no Compensatory Mitigation Plan is required. MM BIO-1c does not apply.			

MM BIO-2a: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities)	Yes	MRC Prior-During	MRC
See species-specific requirements for listed wildlife species and California Fully Protected species in Impact BIO-2.			

MM BIO-2b: Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species (All Treatment Activities)	Yes	MRC Prior-During	MRC
See species-specific requirements for other special-status wildlife species in Impact BIO-2.			

MM BIO-2d: Implement Protective Measures for Valley Elderberry Longhorn Beetle (All Treatment Activities).	No	N/A	N/A
MM BIO-2d does not apply to the project as the project is outside the valley elderberry longhorn beetle's range.			

MM BIO-2e: Design Treatment to Retain Special-Status Butterfly Host Plants (All Treatment Activities)	No	N/A	N/A
This mitigation measure does not apply as no special-status butterfly host plants were found within the project area during reconnaissance level surveys and special-status protocol-level plant surveys conducted by a qualified biologist across the entire project area on January, 20th, May 9th and July 23rd, 2023 respectively.			

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

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

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

MM BIO-2h: Avoid Potential Disease Transmission Between Domestic Livestock and Special-Status Ungulates (All Treatment Activities)	No	N/A	N/A
MM BIO-2h does not apply as no prescribed herbivory is proposed for this project.			

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

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

MM BIO-3c: Compensate for Unavoidable Loss of Riparian Habitat Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the project proponent (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.	No	N/A	N/A
WLPZs and ELZs will be established adjacent to all Class I, Class II, and Class III streams within the project area, and protections applied in all WLPZs and ELZs are anticipated to avoid the loss or degradation of riparian habitat functions. In addition, SPR BIO-4 will be implemented to further avoid degradation of riparian habitat function. MM BIO-3c is not applicable to this project as no significant impacts to riparian habitat will occur.			

MM BIO-4: Avoid State and Federally Protected Wetlands	No	N/A	N/A
A qualified biologist conducted a survey of the project area on January 20th and determined that no State or Federally protected wetlands exist within the project area. MM BIO-4 does not apply.			

MM BIO-5: Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites	Yes	MRC Prior-During	MRC
MM BIO-5 applies, see Attachment A.			

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

Discussion:

The Mattole watershed overlies the Mendocino Triple Junction, one of the most seismically active regions in North America. As the Gorda Plate pushes under the continental plate, sea floor sediments are accreted onto the landmass. Over the past 140 million years

this subduction and the resulting continental accretion have created the Franciscan Complex, which is the dominant rock formation of much of the North Coast region. These marine sediments, which comprise the Franciscan complex and underlay the project area, are Mesozoic-aged (70 to 220 million years old). They are undivided cretaceous rocks composed mainly of shale and greywacke sandstone (Mattole Restoration Council, 1995). The rocks in the Mattole watershed have undergone severe post depositional deformation, being folded, fractured and highly weathered.

The northern and southern portions of the property consist of Hugo series, ranging in depth from 3 to 4 feet. Hugo soils are comprised of sandstone and shale parent material and usually occur on moderate to very steep slopes. The steeper slopes are on the northern edge of the project area. They are characterized as loams or clay loams, which vary from slightly to strongly acid and are grayish brown or pale brown in color. Hugo soils are well drained and have moderately rapid permeability. The erosion hazard rating is moderate to high. Hugh soils have a mean annual precipitation of 60 to 70 inches. This site is also characterized as a melange soil with lumpy and irregular topography. The middle portion of the property is composed of Laughlin series, ranging in depth from 2 to 3 feet. Laughlin soils are comprised of sandstone and shale parent material and usually occur on hilly to very steep slopes. They are characterized as loams, slightly acidic, and pale brown to light yellowish brown in color. Laughlin soils have good drainage with moderate permeability and moderate erosion hazards. The mean annual precipitation is 60-75 inches.

The table below includes a summary of the 4 designated soil types that are present in the project area (NRCS 2023):

Unit Symbol	Unit Name	Acres in Project Area	Percent of Project Area
569	Crazycoyote-Windynip-Caperidge complex	54.5	49.8%
574	Sproulish-Canoecreek-Redwohly complect	11.4	10.4%
575	Canoecreek-Sproulish-Redwohly complex	11.0	10.1%
646	Wirefence-Windynip-Devilshole complex	32.4	29.6%

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact

Impact GEO-1: Result in Substantial Erosion or Loss of Topsoil	Impact Geo-1, 3.7	LTS	SPR GEO-1, 2, 3, 4, 5, 6, 7, 8, SPR HYD-3, 4 SPR AQ- 3, 4 SPR HYD- 4	Yes	LTS	☒

Treatment activities would include pile burning, broadcast burning, and manual treatment. These activities could result in varying levels of soil disturbance and have the potential to increase the rates of erosion and loss of topsoil. The potential for these treatment activities to cause substantial erosion or loss of topsoil was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.7.3, pages 26-29). No mechanical treatments are proposed, which is the treatment activity most likely to cause soil disturbance. This impact is within the scope of the PEIR because the soil characteristics of the project area are essentially the same within and outside the CalVTP treatable landscape and the use and type of equipment, extent of vegetation removal, and intensity of prescribed burning are consistent with those analyzed in the PEIR.

The project proponent proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by the project proponent would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, the project proponent would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3. For these reasons, proposed revisions to SPR AQ-3 would not result in greater soil erosion, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect related to soil erosion than what was covered in the PEIR.

The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside of the treatable landscape are essentially the same within and outside the treatable landscape; therefore, the potential impact related to soil erosion is also the same.

The SPRs applicable to the proposed project are SPR GEO-2 through 8, HYD-4, and AQ-3 and 4. SPR GEO-1 is not applicable to the proposed project because no mechanical, prescribed herbivory, or herbicide treatments are proposed as part of this project. SPR HYD-3 does not apply because no prescribed herbivory is proposed as part of this project.

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

Initial and maintenance treatments include manual and prescribed burning treatment activities in areas with steep slopes, which could decrease the stability of slopes and increase the risk of landslides. Given the variable topography in some of the treatment areas, the remoteness of the area, steep terrain, and wet winter conditions, there is the potential for landslides in the project area. 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). This impact is within the scope of the PEIR because the extent of vegetation removal,

intensity of prescribed burning, and characteristics of the geographical terrain are consistent with those analyzed in the PEIR.

The project proponent revised SPR AQ-3 to use the burn plan template developed by the California State-Certified Burn Boss program or equivalent. The revision does not modify the SPR AQ-3 requirement to minimize soil burn severity and to reduce the potential for runoff and soil erosion and will not result in a substantially more significant effect related to landslide risk than what was analyzed in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 not substantially greater than described 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.

The SPRs applicable to the proposed project are SPR GEO-3, GEO-4, GEO-7, GEO-8, and SPR AQ-3.

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

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.7.1, “Environmental Setting,” and Section 3.7.2, “Regulatory Setting,” in Volume II of the Final PEIR).

Inclusion of land in the project 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. Therefore, no new impact related to geology and soils would occur.

APPLICABLE SPRs and MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR GEO-1 Suspend Disturbance during Heavy Precipitation: This SPR applies only to mechanical, prescribed herbivory, and herbicide treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR GEO-1 is not applicable because no mechanical, prescribed herbivory, or herbicide treatments are proposed as part of this project.			

SPR GEO-2 Limit High Ground Pressure Vehicles: This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance	Yes	MRC During	MRC
SPR GEO-2 applies, see Attachment A.			

SPR GEO-3 Stabilize Disturbed Soil Areas: 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	Yes	MRC During	MRC
SPR GEO-3 applies, see Attachment A.			

SPR GEO-4 Erosion Monitoring: This SPR applies only to mechanical, prescribed herbivory, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR GEO-4 applies, see Attachment A.			

SPR GEO-5 Drain Stormwater via Water Breaks. This SPR applies only to mechanical, manual, and prescribed burn treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR GEO-5 applies, see Attachment A.			

SPR GEO-6 Minimize Burn Pile Size: This SPR applies to mechanical, manual, and prescribed burning treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC

SPR GEO-6 applies, see Attachment A.

SPR GEO-7 Minimize Erosion, Slope Restrictions for Heavy Equipment and Tractor Roads: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR GEO-7 applies, see Attachment A.			

SPR GEO-8 Steep Slopes: This SPR applies only to mechanical treatment activities and WUI fuel reduction, non-shaded fuel breaks, and ecological restoration treatment types. Including treatment maintenance.	No	N/A	N/A
SPR GEO-8 does not apply as no mechanical treatment activities are proposed for this project.			

3.7 EC – Greenhouse Gas Emissions

Discussion:

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GHG-1: Conflict with applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs	Impact GHG-1, 3.8	LTS	SPR GHG- 1	Yes	LTS	☒
The use of vehicles, mechanical equipment, and prescribed fire 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). Consistent with the PEIR, although GHG emissions would occur from equipment, prescribed fire, and vehicles, the purpose of the proposed project is to reduce wildfire risk, which could reduce GHG emissions and increase carbon sequestration over the long term. This impact is within the scope of the PEIR because the proposed activities, as well as the associated equipment, treatments, duration of use, and resultant GHG emissions, are consistent with those analyzed in the PIER.The project impacts relating to the consistency of						

treatments with applicable plans, policies, and regulations will remain less than significant.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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. Additionally, the area outside of the treatable landscape, 3.7 acres, is not substantial in comparison to expected annual statewide treatment area of 250,000 acres; thus, the increase in the use of vehicles and mechanical equipment, and related emissions, would not be substantially greater than that analyzed in the PEIR (i.e., within the treatable landscape). Therefore, the GHG impact is substantially similar to as described 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.

SPR GHG-1 is not applicable to the proposed project; the project proponent is not subject to the requirement to provide information to inform reporting under the Board of Forestry and Fire Protection's Assembly Bill 1504 Carbon Inventory Process, because this project is not a registered offset project

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact GHG-2: Generate Greenhouse Gas Emissions through Treatment Activities	Impact GHG-2, 3.8	PSU	SPR AQ-3, MM GHG-2	Yes	SU	☒

The use of vehicles, mechanical equipment, and prescribed fire would result in greenhouse gas emissions. The potential for treatments under the CalVTP to generate GHG emissions was examined in the PEIR (CalVTP Final PEIR volume II Section 3.8.3, pages 11-17) and found to be significant and unavoidable after the application of all feasible mitigation measures because of the infeasibility of implementing specific emission reduction techniques and the uncertainties associated with all the parameters and objectives of prescribed burning.

As listed in the CalVTP PEIR Table 3.8-3, manual treatments are estimated to produce between 0.69 and <0.01 MTCO2e/acre (depending on vegetation type). The estimated calculation derived from the values in the CalVTP PEIR Table 3.8-3 does not include the GHG emissions from vehicle transport, including the transportation of equipment and contractors. 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. 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. 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).

The project proponent proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by the project proponent would include smoke management plans and other elements that would meet the same standards as required under CAL FIRE burn plans. For these reasons, proposed revisions to SPR AQ-3 would not result in greater generation of GHG emissions, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on GHG emissions than what was covered in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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. Additionally, the area outside of the treatable landscape, 3.7 acres, is not substantial in comparison to expected annual statewide treatment area of 250,000 acres; thus, the increase in the use of vehicles, mechanical equipment, prescribed fire, and related emissions would not be substantially greater than that analyzed in the PEIR (i.e., within the treatable landscape). Therefore, the GHG impact is substantially similar to as described in the PEIR. This impact would remain significant and unavoidable as explained in the PEIR, but for the reasons explained above, would not constitute a new or substantially more severe significant impact.

The SPRs applicable to the proposed project are SPR AQ-3 and MM GHG-2.

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

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD has considered the site-specific characteristics of the proposed treatments and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (refer to Section 3.8.1, “Regulatory Setting,” and Section 3.8.2, “Environmental Setting,” in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the project area 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 proposed treatments and 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.

Greenhouse Gas Emissions SPRs and MMs

Discussion:

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR GHG-1 is not applicable to the proposed project; the project proponent is not subject to the requirement to provide information to inform reporting under the Board of Forestry and Fire Protection's Assembly Bill 1504 Carbon Inventory Process, because this project is not a registered offset project			

MM GHG-2. Implement GHG Emission Reduction Techniques During Prescribed Burns.	Yes	MRC Prior-During	MRC
MM GHG-2 applies, see Attachment A.			

3.8 EC – Energy Resources

Discussion:

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

The use of vehicles and equipment during initial treatment and treatment maintenance activities would result in the consumption of energy through the use of fossil fuels. The use of fossil fuels for equipment and vehicles was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.9.3, pages 7-8). The consumption of energy during implementation of the treatment project 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.

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

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

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (refer to Section 3.9.1, “Regulatory Setting,” and Section 3.9.2, “Environmental Setting,” in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the project 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 project are also consistent with those considered 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 energy resources would occur.

3.9 EC – Hazardous Materials, Public Health, and Safety

Discussion:

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	Impact HAZ-1, 3.10	LTS	SPR HAZ-1,2 SPR HYD-4	Yes	LTS	☒

Initial and maintenance treatments would include manual and prescribed fire treatments. These treatment activities would require the use of fuels, which are hazardous materials. The potential for treatment activities to cause a significant health hazard from the use of hazardous materials was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, pages 14-15). This impact is within the scope of the PEIR because the types of treatments and associated equipment and types of hazardous materials that would 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, 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. 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. Based on the implementation of the applicable SPR's and consistency with the scope of the PEIR, this impact would remain less than significant.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the exposure potential and regulatory conditions are essentially the same within and outside the treatable landscape; therefore, the potential to create a significant health hazard from use of hazardous materials is not substantially greater than described 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.

The SPRs applicable to the proposed project are SPR HAZ-1, HAZ-2 and SPR HYD-4

Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	Impact HAZ-2, 3.10, Appendix HAZ-2	LTS	SPR HAZ-5, 6, 7, 8, 9	Yes	LTS	☒
No use of herbicides is proposed in this Project.						

Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	Impact HAZ-3, 3.10	PS	MM HAZ- 3	Yes	LTS	☒
The Project area is entirely on private land, owned by a private individual. Prescribed fire treatments could result in disturbance of the surface of the ground, which could accidentally release hazardous materials into the environment if present. If released, hazardous material could enter waterways via runoff or expose the public to harmful effects through inhalation or dermal exposure. The potential for workers participating in treatment activities to encounter contamination that could expose them or the environment to hazardous materials was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.10.3, page 18-19). This impact was identified as potentially significant in the PEIR because hazardous materials sites could be present within treatment sites, and soil disturbance in those areas could expose people or the environment to hazards. As directed by Mitigation Measure HAZ-3, the project proponent checked with the landowner on January 20,2023 to determine if there were any sites known to have previously used, stored, or disposed of hazardous materials. The landowner confirmed that there were no hazardous materials within the Project Area and a database search for hazardous materials sites returned no results (Attachment C). Therefore, this impact is reduced to less than significant. The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 the same, as described above, and the potential to expose the public to hazardous materials is not substantially greater than described 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.						

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

CalVTP PEIR?						

The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.10.1, "Environmental Setting," and Section 3.10.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land in the project 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.

Applicable Hazardous Materials SPRs AND MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR HAZ-1 Maintain All Equipment: This SPR applies to all treatment activities and treatment types, including treatment maintenance	Yes	MRC During	MRC
SPR HAZ-1 applies, see Attachment A.			

SPR HAZ-2 Require Spark Arrestors: This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR HAZ-2 applies, see Attachment A.			

SPR HAZ-3 Require Fire Extinguishers: This SPR applies only to manual treatment activities and all treatment types.	Yes	MRC During	MRC
SPR HAZ-3 applies, see Attachment A.			

SPR HAZ-4 Prohibit Smoking in Vegetated Areas. This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR HAZ-4 applies, see Attachment A.			

SPR HAZ-5 Spill Prevention and Response Plan. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR HAZ-5 does not apply as no herbicides are proposed for use in the project.			

SPR HAZ-6 Triple Rinse Herbicide Containers. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR HAZ-6 does not apply as no herbicides are proposed for use in the project.			

SPR HAZ-7 Comply with Herbicide Application. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance	No	N/A	N/A
SPR HAZ-7 does not apply as no herbicides are proposed for use in the project.			

SPR HAZ-8 Comply with Herbicide Application. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR HAZ-8 does not apply as no herbicides are proposed for use in the project.			

SPR HAZ-9 Notification of Herbicide Use in the Vicinity of Public Areas. This SPR applies only to herbicide treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR HAZ-9 does not apply as no herbicides are proposed for use in the project.			

MM HAZ-3: Identify and Avoid Known Hazardous Waste Sites Prior to the start of vegetation treatment activities requiring soil disturbance (i.e., mechanical treatments) or prescribed burning, CAL FIRE and other project proponents will make reasonable efforts to check with the landowner or other entity with jurisdiction (e.g., California Department of Parks and Recreation) to determine if there are any sites known to have previously used, stored, or disposed of hazardous materials.	Yes	MRC During	MRC
As discussed above, the landowner was consulted and database searches for hazardous materials sites within the project area have been conducted, and no hazardous materials sites were identified within 0.25 mile of the project area (See Attachment C).			

3.10 EC – Hydrology and Water Quality

Discussion:

The proposed project is located within the North Coast hydrologic region as depicted in Figure 3.11-1 of the PEIR, and within the Mattole River watershed. The two major watercourses within the project area include the Class I Upper North Fork of the Mattole River which runs through the northwest corner of the project area and the Class I unnamed tributary which runs through the southern portion of the project area. Several other Class II and Class III watercourses occur throughout the project area. The watercourses north of the main ridge in the project area drain into the Upper North Fork of the Mattole River and the watercourses south of the ridge drain into its unnamed tributary.

Several of the impacts below (i.e., HYD-1 through 4) evaluate compliance with water quality standards or waste discharge requirements. All include implementation of SPR HYD-1, which requires compliance with such water quality regulations. The State Water Resources Control Board is requiring all projects using the CalVTP PEIR to follow the requirements of their Vegetation Treatment General Order, which would meet the requirements of SPR HYD-1. Users of the CalVTP PSA process are automatically enrolled in the General Order and are required to implement all applicable SPRs and mitigation measures from the PEIR.

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact HYD-1: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the	Impact HYD-1, 3.11	LTS	SPR HYD-4 SPR AQ-3 SPR BIO-4, 5 SPR GEO-4, 6 MM BIO-3b	Yes	LTS	☒

Implementation of Prescribed Burning						

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.

The project proponent proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by the project proponent would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, the project proponent would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3. For these reasons, proposed revisions to SPR AQ-3 would not 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. Therefore, revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect on hydrology and water quality than what was covered 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 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.

The SPRs applicable to this Project are SPR HYD-4, SPR AQ-3, SPR BIO-4, SPR GEO-4, and SPR GEO-6.

SPR BIO-5 is not applicable because the project area does not contain chaparral. MM BIO-3b is not applicable because no loss of sensitive natural communities or oak woodlands will occur.

Impact HYD-2: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Implementation of Manual or Mechanical Treatment Activities	Impact HYD-2, 3.11	LTS	SPR HYD-1,2,3,4 SPR BIO-1 SPR GEO-1, 2, 3, 4, 7, 8 SPR HAZ-1	Yes	LTS	☒
Initial and maintenance treatments would include manual treatments. WLPZs ranging from 50 to 150 feet will be implemented and flagged for any Class I and Class II watercourses that are within treatment areas pursuant to SPR HYD-4. The centerline of Class III watercourses will also be flagged. The potential for manual treatment activities to violate water quality regulations or degrade water quality was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.11.3, pages 27-28). This impact is within the scope of the PEIR because the use of manual treatments to remove vegetation and associated impacts to water quality are consistent with those analyzed in the PEIR. The inclusion of land in the proposed project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 the same, 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 The SPRs applicable to the proposed project are SPR HYD-1, HYD-2, HYD-4, BIO- 1, GEO-1, GEO-2, GEO-3, GEO-4, GEO-7, GEO-8, HAZ-1. SPY HYD-3 is not applicable because no prescribed herbivory is proposed as part of this project.						

Impact HYD-3: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through Prescribed Herbivory	Impact HYD-3, 3.11	LTS	SPR HYD- 3	No	N/A	☒
This impact does not apply to the proposed project because prescribed herbivory is not proposed.						

Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Ground Application of Herbicides	Impact HYD-4, 3.11	LTS	SPR HYD- 5 SPR BIO- 4 SPR HAZ-5, 7	No	N/A	☒
This impact does not apply to the proposed project because the use of herbicides is not proposed.						

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

Initial and maintenance treatments could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. The potential for treatment activities to substantially alter the existing drainage pattern of a project site was examined in the PEIR. This impact to site drainage is within the scope of the PEIR because the types of treatments and treatment intensity are consistent with those analyzed in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the watershed associated with the project area is the same in areas within and outside of the treatable landscape, and the project application type is consistent with those included in the PEIR, and the treatment types and activities proposed for the project are consistent with those included in the PEIR. Therefore, the potential to alter existing drainage patterns of a treatment site or area is also the same, as described above, and would not be substantially greater than described 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.

The SPRs applicable to the proposed project are SPR HYD-4, HYD-6 and GEO-5.

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

The proposed treatment is consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.11.1, “Environmental Setting,” and Section 3.11.2, “Regulatory Setting,” in Volume II of the Final PEIR).

Including land in the project 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.

APPLICABLE Hydrology and Water Quality SPRs AND MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR HYD-1 Comply with Water Quality Regulations: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
SPR HYD-1 applies, see Attachment A.			

SPR HYD-2 Avoid Construction of New Roads: This SPR applies to all treatment activities and treatment types, including treatment maintenance	Yes	MRC During	MRC
No new roads will be constructed under the proposed project.			

SPR HYD-3 Water Quality Protections for Prescribed Herbivory: This SPR applies to prescribed herbivory treatment activities and all treatment types, including treatment maintenance	No	N/A	N/A
SPR HYD-3 does not apply as prescribed herbivory will not be used as a treatment activity in the project.			

SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
SPR HYD-4 applies, see Attachment A.			

SPR HYD-5 Protect Non-Target Vegetation and Special-status Species from Herbicides: This SPR applies to herbicide treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
No herbicides will be used in the project.			

SPR HYD-6 Protect Existing Drainage Systems: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR HYD-6 applies, see Attachment A.			

3.11 EC – Land Use and Planning, Population, and Housing

Discussion:

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

The project area is entirely within private property, owned by a private individual. Treatment activities on lands owned or managed by private owners are generally required to comply with applicable city and county general plans and other local policies and ordinances. The potential for vegetation treatment activities to cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.12.3, pages 13-14). The project proponent reached out to the County for consultation on June 28, 2023. The County responded on July 7, 2023 and stated that the CalVTP is consistent with the California Forest Practices Act and therefore the Marshall Prescribed Burn is exempt from the County's Stream Management Areas and Wetlands Ordinance and Grading Ordinance. There are no other applicable local ordinances.

This impact is within the scope of the PEIR because the treatment types and activities are consistent with those analyzed in the PEIR. Based on the implementation of SPR AD-3 and consistency with the Humboldt County General Plan and scope of the PEIR, this impact would remain less than significant.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent considered in the PEIR. However, all land in the project area is owned by the pirvate individual, within and outside the treatable landscape. Treatment types would be consistent with those described in the PEIR. Therefore, the potential to conflict with a land use plan, policy or regulation is not substantially greater than described in the PEIR. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

The SPR applicable to the proposed project is SPR AD-3. SPR AD-9 does not apply because the project area is outside of the coastal zone.

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

The potential for initial treatments and maintenance treatments to result in substantial population growth as a result of increases in demand for employees was examined in the 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. 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.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the population and housing characteristics of the project area are essentially the same within and outside the treatable landscape. Therefore, the potential to induce unplanned population growth is also the same, as described above, and would not be substantially greater than described in the PEIR.

This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR

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

The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.12.1, “Environmental Setting,” and Section 3.12.2, “Regulatory Setting,” in Volume II of the Final PEIR).

Including land in the project 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

Discussion:

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

Initial and maintenance treatments would require heavy, noise-generating equipment. Manual and prescribed burning could temporarily expose receptors to noise levels that exceed local standards. The potential for a substantial short-term increase in ambient noise levels from use of heavy equipment was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.13.3, pages 9-12). This impact is within the scope of the PEIR because the number and types of equipment proposed, and equipment use being temporary and sporadic, are consistent with the assumptions analyzed in the PEIR. The proposed treatments would not require the use of helicopters, which was the loudest type of equipment evaluated in the PEIR.

The Humboldt County Code does not contain any noise standards or noise-exemption time periods related to construction activity, which would also apply to vegetation treatment activities. In the absence of standards for construction noise, the county's land use/noise compatibility interior standards would be applied, which limit interior noise to 45 dB L_{dn} for noise sensitive receptors. L_{dn} is the day-night average sound level and is used to describe the cumulative noise exposure during an average annual day. As discussed in the PEIR, noise levels generated by individual equipment range from 77 to 87.9 dB at 50 feet from the noise source. Though multiple pieces of equipment would be operated simultaneously to implement a treatment they would typically be spread out (i.e., usually more than 100 feet apart) rather than operating next to each other. This is particularly true of larger, heavy-duty off-road equipment. Noise-generating equipment would be used intermittently between 7:00 a.m. and 6:00 p.m. during treatment. While there is the potential for some prescribed burning to occur during nighttime and weekend hours, the use of heavy equipment would be limited to 7:00 a.m. to 6:00 p.m. Monday through Saturday and between 9:00am and 6:00pm on Sunday and federal holidays, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours.

Although operation of equipment would temporarily and intermittently generate elevated noise during daytime hours, the interior noise standard is an average that considers daytime and nighttime noise levels, and when averaged with the noise levels during the quiet nighttime hours, it is reasonably expected that noise generated during treatments would not exceed the local L_{dn} threshold. In addition, treatments would primarily occur outside of the 100-foot defensible space requirement described in PRC 4291 and therefore, most treatments would not occur within 100 feet of sensitive receptors. The

equipment noise levels discussed above are at 50 feet. Therefore, there would typically be additional attenuation for distance, vegetation, and building materials that would result in interior noise levels being lower than the 77 to 87.9 dB levels estimated for equipment. Treatments would also be dispersed throughout the 109.3-acre project area so that short-term noise increases at any one sensitive receptor would be limited. SPRs AD-3 and NOI-1 through NOI-5 are applicable to this treatment. With implementation of SPR AD-3, noise levels associated with vegetation treatment activities under the CalVTP would not exceed local land use/noise compatibility standards and noise exposure attributed to vegetation treatment activities under the CalVTP would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of local standards. For any sensitive receptors that are within 1,500 feet of a treatment area, SPR NOI-6 would also apply. There is one residence within the project area and two commercial cannabis operations within 1,500 feet of the proposed project area. There are no residences associated with these commercial cannabis sites.

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

The SPRs applicable to the proposed project are SPRs NOI-1, NOI-2, NOI-3, NOI-4, NOI-5, NOI-6, AD- 3.

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

Due to the existing road network leading to the project area, large trucks will not be used to haul heavy equipment into the project area. Fire engines, water trucks, and passenger trucks may be used to implement initial and maintenance treatments. The analysis for Impact NOI-2 in the PEIR focused on haul trucks, which will not be used in this proposed project. Fire engines, water trucks, and passenger trucks would still pass by residential receptors, which could increase the single event noise levels (SENL). The potential for a substantial short-term increase in SENL was evaluated in the PEIR. Short-term increases in noise from the use of haul trucks 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. . While there is the potential for some prescribed burning to occur during nighttime and weekend hours, the use of heavy equipment would be limited daytime hours, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours.

The inclusion of land in the project 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 the same, as described, and would not be substantially greater than described 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.

The SPR applicable to the proposed project is SPR NOI-1.

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

The proposed treatment is consistent with the treatment types and activities discussed in the PEIR. The HCRCD has considered all site-specific characteristics of the proposed treatment project and determined they are consistent with the regulatory and environmental conditions presented in the CalVTP PEIR (refer to Section 3.13.1, "Environmental Setting," and Section 3.13.2, "Regulatory Setting," in Volume II of the Final PEIR).

Including land from outside the CalVTP treatable landscape in the project 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 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 would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to noise would occur that is not analyzed in the PEIR

Noise SPRs AND MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR NOI-1 Limit Heavy Equipment Use to Daytime Hours: This SPR applies to all treatment activities and treatment types.	Yes	MRC During	MRC

The Humboldt County Code does not contain any noise standards or noise-exemption time periods related to construction activity, which would also apply to vegetation treatment activities. In the absence of standards for construction noise, the county's land use/noise compatibility interior standards would be applied, which limit interior noise to 45 dB L_{dn} for noise sensitive receptors. L_{dn} is the day-night average sound level and is used to describe the cumulative noise exposure during an average annual day. As discussed in the PEIR, noise levels generated by individual equipment range from 77 to 87.9 dB at 50 feet from the noise source. Though multiple pieces of equipment would be operated simultaneously to implement a treatment they would typically be spread out (i.e., usually more than 100 feet apart) rather than operating next to each other. This is particularly true of larger, heavy-duty off-road equipment. Noise-generating equipment would be used intermittently between 7:00 a.m. and 6:00 p.m. during treatment. While there is the potential for some prescribed burning to

occur during nighttime and weekend hours, the use of heavy equipment would be limited to 7:00 a.m. to 6:00 p.m. Monday through Saturday and between 9:00am and 6:00pm on Sunday and federal holidays, which would avoid the potential to cause sleep disturbance to residents during the more noise-sensitive evening and nighttime hours.

SPR NOI-2 Equipment Maintenance: This SPR applies to all activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR NOI-2 applies, see Attachment A.			

SPR NOI-3 Engine Shroud Closure: This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR NOI-3 applies, see Attachment A.			

SPR NOI-4 Locate Staging Areas Away from Noise-Sensitive Land Uses. This SPR applies to all treatment activities and treatment types, including treatment maintenance	Yes	MRC During	MRC
SPR NOI-4 applies, see Attachment A.			

SPR NOI-5 Restrict Equipment Idle Time: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During	MRC
SPR NOI-5 applies, see Attachment A.			

SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: This SPR applies only to mechanical treatment activities and all treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
SPR NOI-6 applies, see Attachment A.			

3.13 EC – Recreation

Discussion:

	PEIR specific			Project specific		
	Identify location of Impact Analysis in the PEIR	Identify Impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	Impact REC-1, 3.14	LTS	SPR REC- 1	No	N/A	☒
There are no recreational areas within or around the project area.						

Other Impacts to Recreation: Would the project result in other impacts to recreation that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed project is consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.14.1, "Environmental Setting," and Section 3.14.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land in the project 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.						

Recreation SPRs AND MMs

SPR REC-1 Notify Recreation Users of Temporary Closure: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR REC-1 is not applicable as there are no recreational areas within or around the project area.			

3.14 EC – Transportation

Discussion:

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact TRAN-1: Result in temporary traffic operations impacts by conflicting with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures	Impact TRAN-1, 3.15	LTS	SPR TRAN-1 SPR AD-3	Yes	LTS	☒
Initial and maintenance treatments would temporarily increase vehicular traffic on Mattole and Meaux roads. The potential for a temporary increase in traffic to conflict with a program, plan, ordinance, or policy addressing roadway facilities or prolonged road closures was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.15.3, pages 9-10). The proposed treatments would be short term, and temporary increases in traffic related to treatments are within the scope of the PEIR because the treatment duration and limited number of vehicles (i.e., fire engines, crew vehicles for crew members) associated with the proposed treatments are consistent with those analyzed in the PEIR. In addition, the proposed treatments would not all occur concurrently, and increases in vehicle trips associated with the treatments would be dispersed on multiple roadways. No road closures would be necessary for the implementation of the project. The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 the same, as described above, and would not be substantially greater than described 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. The SPR applicable to the proposed project is SPR TRAN-1.						

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

Initial and maintenance treatments would not require the construction or alteration of any roadways. However, the proposed treatments would include prescribed burning, which would produce smoke and could potentially affect visibility along nearby roadways such that a transportation hazard could occur. The potential for smoke to affect visibility along roadways during implementation of the treatment project was examined in the PEIR (CalVTP Final PEIR volume II Section 3.15.3, pages 10-11). This impact is within the scope of the activities and impacts addressed in the PEIR because the burn duration is consistent with that analyzed in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 the same as those within the treatable landscape; therefore, the transportation impact is also the same, as described above, and would not be substantially greater than described 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.

The SPRs applicable to the proposed project are SPR TRAN-1, HYD-2, and AD-3.

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

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 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. While carpooling would be encouraged under Mitigation Measure AQ-1, crew sizes would be small and may not all be employed with the same company. Therefore, carpooling may not be feasible to implement for most of the workers. 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

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 for areas outside the CalVTP treatable landscape 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. Mitigation measure AQ-1 is applicable to this project.

Other Impacts to Transportation: Would the project result in other impacts to transportation that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatments are consistent with the treatment types and activities considered in the CalVTP PEIR. The HCRCD 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 (refer to Section 3.15.1, "Environmental Setting," and Section 3.15.2, "Regulatory Setting," in Volume II of the Final PEIR). Including land in the project 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.						

TRANSPORTATION SPRs and MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR TRAN-1 Implement Traffic Control during Treatments: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
SPR TRAN-1 applies, see Attachment A.			

3.15 EC – Public Services, Utilities, and Service Systems

Discussion:

	PEIR specific			Project specific		
	Identify location of impact Analysis in the PEIR	Identify impact Significance in the PEIR	SPRs & MMs applicable to the impact analysis in PEIR	Does the Impact Apply to the project Treatments proposed	Identify Impact Significance for the Treatment Project	No New Impact
Impact UTIL-1: Result in Physical Impacts Associated with Provision of Sufficient Water Supplies, Including Related Infrastructure Needs	Impact UTL-1, 3.16	LTS	N/A	Yes	LTS	☒
Initial and maintenance treatments would include prescribed burning, which would require an on-site water supply (water trucks) to be available as a safety precaution. If needed to extinguish the burn, water would be supplied from water trucks. The potential increased demand for water was examined in the 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 of the area proposed for prescribed burn treatments, amount of water required for prescribed burning, and water source type are consistent with those analyzed in the PEIR. The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the existing environmental conditions present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the water supply impact is also the same, as described above. 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: Generate Solid Waste in Excess of State Standards or Exceed Local Infrastructure Capacity	Impact UTL-2, 3.16	SU	SPR UTIL- 1	No	N/A	☒
This impact does not apply to the proposed project because all biomass generated from the proposed treatments will be disposed of on-site. Since no biomass material will be disposed of *outside* the treatment area, SPR UTIL-1 does not apply.						

Impact UTIL-3: Comply with Federal, State, and Local Management and Reduction Goals, Statutes, and Regulations Related to Solid Waste	Impact UTL-3, 3.16	LTS	SPR UTIL-1	No	N/A	☒

This impact does not apply to the proposed project because biomass generated from the proposed treatments will be disposed of on-site. Since no biomass material will be disposed of outside the treatment area, SPR UTIL-1 does not apply.

Other Impacts to Public Services, Utilities, and Service Systems: Would the project result in other impacts to public services, utilities, and service systems that are not evaluated in the CalVTP PEIR?				No	N/A	☒
The proposed treatment is consistent with the treatment types and activities considered in the PEIR, and the project is consistent with the regulatory and environmental conditions presented in the PEIR (refer to Section 3.16.1, "Environmental Setting," and Section 3.16.2, "Regulatory Setting," in Volume II of the Final PEIR). Within the boundary of the project area, the existing environmental conditions pertinent to public services, utilities, and service systems that are present in the areas outside the treatable landscape are essentially the same as those within the treatable landscape; therefore, the impacts of the proposed treatment project are also consistent with those covered in the PEIR. No changed circumstances would lead to new significant impacts not addressed in the PEIR. Therefore, no new impact related to public services, utilities, or service systems would occur that is not covered in the PEIR.						

PUBLIC SERVICES AND UTILITIES SPRs and MMs

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR UTIL-1 Solid Organic Waste Disposition Plan: This SPR applies to mechanical and manual treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
SPR UTIL-1 does not apply as no disposal of material outside the treatment area is planned.			

3.16 EC – Wildfire

Discussion:

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

Proposed vegetation treatment activities are mechanical, manual, herbicide application, and prescribed burn treatments. Vegetation treatment involving motorized equipment could pose a risk of accidental ignition. Temporary increases in risk associated with uncontrolled fire from prescribed burns could also occur. As discussed in Section 3.17.1, "Environmental Setting," in Volume II of the Final PEIR, under "Prescribed Burn Planning and Implementation," implementing a prescribed burn requires extensive planning, including the preparation of prescription burn plans, smoke management plans, site-specific weather forecasting, public notifications, safety considerations, and ultimately favorable weather conditions so a burn can occur on a given day. Prior to implementing a broadcast burn, fire containment lines would be established by clearing vegetation surrounding the designated burn area to help prevent the accidental escape of fire. Water containers and safety equipment would be staged on site as necessary. The potential increase in exposure to wildfire during implementation of treatments was examined in the PEIR (CalVTP Final PEIR Volume II Section 3.17.3, pages 13-14). Increased wildfire risk associated with the use of heavy equipment in vegetated areas and with prescribed burns is within the scope of the PEIR because the types of equipment and treatment duration and the types of prescribed burn methods proposed as part of the project are consistent with those analyzed in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the wildfire risk of the project area is essentially the same within and outside the treatable landscape; therefore, the wildfire impact is also the same, as described above. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR. In addition, the project proponent proposes to revise SPR HAZ-3 to require tree cutting crews to carry one backpack pump-type fire extinguisher filled with water and each vehicle to carry the required hand tools for firefighting, consistent with PRC Section 4428. This revision is consistent with the purpose of SPR HAZ-3 to equip treatment crews with adequate firefighting tools to minimize the risk of wildfire during treatments. For this reason, proposed revisions to SPR HAZ-3 would not result in a substantially more severe significant effect related to exacerbating fire risk than what was covered in the Program EIR.

The SPRs applicable to the proposed project are SPR HAZ-2, HAZ-3, HAZ-4.

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

Vegetation treatment types would include manual vegetation treatment and prescribed burning, which could exacerbate fire risk as described in Impact WIL-1 above. The potential for post-fire landslides and flooding was evaluated in the 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 treatments, and methods of prescribed burn implementation are consistent with those analyzed in the PEIR. In addition, the project does not include new housing and would not result in substantial unplanned population growth and would therefore not place new people or structures in an area with risks related to post-wildfire flooding or landslides from the project treatments. Treatments are also designed to reduce wildfire risk, and thus decrease the risk of landslides and flooding in areas that could otherwise burn in a high severity wildfire without treatment

The project proponent proposes to revise requirements under SPR AQ-3 for prescribed burning activities to allow for the use of non-CAL FIRE burn plan templates (e.g., burn plan templates developed by the California State-Certified Burn Boss curriculum development committee, or equivalent). Burn plans prepared by the project proponent would include all of the requirements of CAL FIRE burn plans. Further, prior to implementing broadcast burning activities, the project proponent would minimize soil burn severity to reduce the potential for runoff and soil erosion, as outlined in SPR AQ-3. For these reasons, proposed revisions to SPR AQ-3 would not result in an increased risk of post-fire landslides and flooding, and revisions to SPR AQ-3, specifically for prescribed burning treatment activities, would not result in a substantially more significant effect related to post-fire landslide and flooding risk than what was covered in the PEIR.

The inclusion of land in the project area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the 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 risk of post-fire flooding or landslides is also the same, as described and would not be substantially greater than described in the PEIR. This determination is consistent with the PEIR and would not constitute a substantially more severe significant impact than covered in the PEIR.

The SPRs applicable to the proposed project are SPR GEO-3, GEO-4, GEO-5, GEO-8.

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

The HCRCD has considered the site-specific characteristics of the proposed treatment project and determined they are consistent with the applicable regulatory and environmental conditions presented in the CalVTP PEIR (refer to Section 3.17.1, “Regulatory Setting,” and Section 3.17.2, “Environmental Setting,” in Volume II of the Final PEIR).

Including land in the project 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 of the CalVTP treatable landscape would not give rise to any new significant impacts. Therefore, no new impact related to wildfire risk would occur.

3.17 EC – Administrative Standard Project Requirements

Discussion:

	Applicable	Implementing Entity & Timing Relative to Implementation	Verifying/ Monitoring Entity
SPR AD-1 Project Proponent Coordination: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior	CAL FIRE
SPR AD-1 applies, see Attachment A.			

SPR AD-2 Delineate Protected Resources: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
SPR AD-2 applies, see Attachment A.			

SPR AD-3 Consistency with Local Plans, Policies, and Ordinances: This SPR applies to all treatment activities and treatment types, including treatment maintenance.	Yes	MRC Prior-During	MRC
The project proponent reached out to Humboldt County on June 28, 2023 to determine if the County had any local ordinances that applied to the proposed project. The County responded on July 7, 2023 and stated that the CalVTP is consistent with the California Forest Practices Act and therefore the Marshall Prescribed Burn is exempt from the County’s Stream Management			

Areas and Wetlands Ordinance and Grading Ordinance. There are no other applicable local ordinances.

SPR AD-4 Public Notifications for Prescribed Burning: This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.	Yes	MRC Prior	MRC
SPR AD-4 applies, see Attachment A.			

SPR AD-5 Maintain Site Cleanliness: This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	Yes	MRC During-Post	MRC
SPR AD-5 applies, see Attachment A.			

SPR AD-6 Public Notifications for Treatment Projects. This SPR applies to all treatment activities and all treatment types, including treatment maintenance. Prescribed burning is subject to the additional notification requirements of SPR AD-4.	Yes	MRC Prior	MRC
SPR AD-6 applies, see Attachment A.			

SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects. This SPR applies to all treatment activities and all treatment type, including treatment maintenance.	Yes	MRC Prior-During-Post	MRC
Information on the proposed treatment project has been submitted to the Board. Once the project is approved and completed, respectively, updated information will be submitted to the Board for online posting on the CalVTP Project Viewer.			

SPR AD-8 Request Access for Post-Treatment Assessment. This SPR applies to all treatment activities and all treatment types, including treatment maintenance.	No	N/A	N/A
This project would be funded by CAL FIRE but would not be implemented by CAL FIRE; therefore, a contract is not necessary for implementation of treatments. This SPR does not apply to the project. However, as landowner, land manager and implementing entity, MRC will access areas post-treatment to assess treatment effectiveness in achieving desired fuel conditions and other CalVTP objectives as well as any necessary maintenance.			

SPR AD-9 Obtain a Coastal Development Permit for Proposed Treatment Within the Coastal Zone Where Required. This SPR applies to all treatment activities and all treatment types.	No	N/A	N/A
SPR AD-9 does not apply to the project because the project is not within the Coastal Zone.			

4.0 ATTACHMENTS

Attachment A – Standard Project Requirements (SPR) & Mitigation Measures (MM) Mitigation Monitoring and Reporting Program

Instructions for project-specific implementation of certain SPRs and mitigation measures have been added to tailor the specific impact avoidance and minimization actions relevant to the proposed treatments, agency standard practices, and the conditions and resources present within each treatment site. In addition, non-substantive clarifying edits to SPRs and mitigation measures in the PEIR are shown in underline and strikethrough. In all cases, the additional project-specific implementation instruction and clarifying edits to the SPRs and mitigation measures maintain the SPRs and mitigation measures as equivalent or more effective than those presented in the PEIR.

EC-1: AESTHETIC AND VISUAL RESOURCE STANDARD 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.

EC-2: AGRICULTURE AND FOREST RESOURCES

- **NONE**

EC-3: AIR QUALITY STANDARD PROJECT REQUIREMENTS

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

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

- **SPR AQ-3 Create Burn Plan:** The project proponent will create a burn plan for broadcast burns using a template developed by the California State-Certified Burn Boss curriculum development committee, or equivalent that includes elements required to obtain burn permits, and any additional elements that are needed to ~~The project proponent will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates~~

~~consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating.~~ design a burn that will minimize soil burn severity from broadcast burning to reduce the potential for runoff and soil erosion. This may, but is not required to, include outputs from fire behavior modeling programs. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies only to prescribed burning treatment activities and all treatment types, including treatment maintenance.

- **SPR AQ-4 Minimize Dust:** To minimize dust during treatment activities, the project proponent will implement the following measures:
  - Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol.
  - If road use creates excessive dust, the project proponent will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by ARB, EPA, or the State Water Resources Control Board (SWRCB). The project proponent will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project proponent based on soil, traffic, site-specific conditions, and air quality regulations.
  - Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project proponent will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113.
  - Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may "cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property," per Health and Safety Code Section 41700.

- **SPR AQ-6:** ~~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).~~ An Incident Action Plan (IAP) will be prepared that includes elements that are appropriate for the size and scope of the burn as necessary to ensure personnel and public safety. IAP elements may include burn organization and assignments, prescribed fire objectives and prescription, description of the prescribed fire area, expected weather and fire behavior, communications, ignition plan, holding plan, contingency plan and assignments, wildfire declaration, and safety and medical plans. A safety briefing will be conducted with all resources on site for each operational period for all prescribed burning treatments to ensure personnel safety considerations and prescribed fire objectives. ~~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.

EC-4: 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.

- **SPR CUL-2 Contact Geographically Affiliated Native American Tribes:** The project proponent will obtain the latest Native American Heritage Commission (NAHC) provided Native Americans Contact List. Using the appropriate Native Americans Contact List, the project proponent will notify the California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following:
    - A written description of the treatment location and boundaries.
    - Brief narrative of the treatment objectives.
    - A description of the activities used (e.g., prescribed burning, mastication) and associated acreages.
    - A map of the treatment area at a sufficient scale to indicate the spatial extent of activities.
    - A request for information regarding potential impacts to cultural resources from the proposed treatment.
    - A detailed description of the depth of excavation, if ground disturbance is expected.
    - In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File.
    - This SPR applies to all treatment activities and treatment types, including treatment maintenance.

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

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

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

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

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

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

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

EC-5: BIOLOGICAL RESOURCES STANDARD PROJECT REQUIREMENTS

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

Qualified Registered Professional Forester (RPF) or Biologist: To be qualified, an RPF or biologist would hold a wildlife biology, botany, ecology, forestry, or other relevant degree from an accredited university and: 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting field surveys of relevant species or

resources, 4) be knowledgeable about survey protocols, 5) be knowledgeable about state and federal laws regarding the protection of special-status species, and 6) have experience with CDFW's California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS). The project proponent will review the resume and approve the qualifications of RPFs or biologists. If species-specific protocol surveys are performed, surveys would be conducted by qualified RPFs or biologists with the minimum qualifications required by the appropriate protocols, including having CDFW or USFWS approval to conduct such surveys, if required by certain protocols.

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

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

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

mechanism will be implemented prior to initiating treatment and will remain in effect throughout the treatment:

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

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

- Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided. Further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey requirements are presented for special-status plants in SPR BIO-7).

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

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

- **SPR BIO-3: Survey Sensitive Natural Communities and Other Sensitive Habitats:** If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will:
  - Require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of A Manual of California Vegetation (including updated natural communities data at http://vegetation.cnps.org/), or referring to relevant reports (e.g., reports found on the VegCAMP website).
  - Map and digitally record, using a Global Positioning System (GPS), the limits of any potential sensitive habitat and sensitive natural community identified in the treatment area.

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

- **SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function.** Project proponents, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats:
    - Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities.
    - Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species.
    - Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained. A scientifically-based, project-specific explanation substantiating the retention size parameter for native riparian hardwood tree removal will be provided in the Biological Resources Discussion of the PSA. Consideration of factors such as site hydrology, erosion potential, suitability of wildlife habitat, presence of sufficient seed trees, light availability, and changes in stream shading may inform the tree size retention requirements.
    - Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service).
    - Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided.
    - Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. This will consist of the minimum disturbance area necessary to reduce hazardous fuels and return the riparian community to a natural fire regime (i.e., Condition Class 1) considering historic fire return intervals, climate change, and land use constraints.
    - Only hand application of herbicides approved for use in aquatic environments will be allowed and only during low-flow periods or when seasonal streams are dry.
    - The project proponent will notify CDFW 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.

- **SPR BIO-6: Prevent Spread of Plant Pathogens.** When working in sensitive natural communities, riparian habitats, or oak woodlands that are at risk from plant pathogens (e.g., Ione chaparral, blue oak woodland), the project proponent will implement the following best management practices to prevent the spread of *Phytopthora* and other plant pathogens (e.g., pitch canker (*Fusarium*), goldspotted oak borer, shot hole borer, bark beetle):
    - clean and sanitize vehicles, equipment, tools, footwear, and clothes before arriving at a treatment site and when leaving a contaminated site, or a site in a county where contamination is a risk;
    - include training on *Phytopthora* diseases and other plant pathogens in the worker awareness training;
    - minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment;
    - minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination;
    - clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area; and
    - follow the procedures listed in Guidance for plant pathogen prevention when working at contaminated restoration sites or with rare plants and sensitive habitat (Working Group for *Phytoptheras* in Native Habitats 2016).

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

- **SPR BIO-7: Survey for Special-Status Plants.** If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status.

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

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

    - If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the 5 years before implementation of the treatment project and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys.

- If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment.

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

- **SPR BIO-9: Prevent Spread of Invasive Plants, Noxious Weeds, and Invasive Wildlife.** The project proponent will take the following actions to prevent the spread of invasive plants, noxious weeds, and invasive wildlife (e.g., New Zealand mudsnail):
  - clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife;
  - for all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species;
  - inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas;
  - stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area;
  - identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and target them for removal during treatment activities. Treatment methods will be selected based on the invasive species present and may include herbicide application, manual or mechanical treatments, prescribed burning, and/or herbivory, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles;
  - treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and
  - implement Fire and Fuel Management BMPs outlined in the “Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers” (Cal-IPC 2012, or current version).

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

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

and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 14 days prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed. This SPR applies to all treatment activities and treatment types, including treatment maintenance.

- **SPR BIO-12 Protect Common Nesting Birds, Including Raptors.** The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in the CalVTP PEIR. The active nesting season will be defined by the qualified RPF or biologist. If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identify the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typically involving walking throughout the survey area, visually searching for nests and birds exhibiting behavior that is typical of breeding (e.g., delivering food). If an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent will implement a feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following:
    - Establish Buffer. The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities will be implemented outside of the buffer. The buffer location will be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.
    - Modify Treatment. The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment modifications will be determined by the project proponent in coordination with the qualified RPF or biologist.
    - Defer Treatment. The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.

  Feasible actions will be taken by the project proponent to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies will be determined by the project proponent based on whether implementation of this SPR will preclude completing the treatment project within the reasonable period of time necessary to meet CalVTP program objectives, including, but not limited to, protection of vulnerable communities. Considerations may include

limitations on the presence of environmental and atmospheric conditions necessary to execute treatment prescriptions (e.g., the limited seasonal windows during which prescribed burning can occur when vegetation moisture, weather, wind, and other physical conditions are suitable). If it is infeasible to avoid loss of common bird nests (not including raptor nests), the project proponent will document the reasons implementation of the avoidance strategies is infeasible in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).

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

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

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

- **MM BIO-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 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 isa geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank.
  - Treatments will be designed to maintain the function of special-status plant habitat. For example, for a fuel break proposed in treatment areas occupied by special-status plants, if the removal of shade cover would degrade the special-status plant habitat despite the requirement to physically or seasonally avoid the special-status plant itself, habitat function would be diminished and the treatment would need to be modified or precluded from implementation.
  - No fire ignition (and associated use of accelerants) will occur within the special-status plant buffer.

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

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

- **MM BIO-2A Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Listed Wildlife Species and California Fully Protected Species (All Treatment Activities):** If California Fully Protected Species or species listed under ESA or CESA are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid adverse effects to the species by implementing the following
    - Avoid Mortality, Injury, or Disturbance of Individuals: The project proponent will implement one of the following 2 measures to avoid mortality, injury, or disturbance of individuals:
        - 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
        - Treatment will be implemented outside the sensitive period of the species' life history (e.g., outside the breeding or nesting season) during which the species may be more susceptible to disturbance, or disturbance could result in loss of eggs or young. For species present year-round, CDFW and/or USFWS/NOAA Fisheries will be consulted to determine if there is a period of time within which treatment could occur that would avoid mortality, injury, or disturbance of the species.
        - For species listed under ESA or CESA, if the project proponent cannot avoid mortality, injury or disturbance by implementing one of the two options listed above, the project proponent will implement Mitigation Measure BIO-2c.
        - Injury or mortality of California Fully Protected Species is prohibited pursuant to Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code and will be avoided.
    - Maintain Habitat Function: The project proponent will design treatment activities to maintain the habitat function, by implementing the following:
        - While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement)ofthe 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.

- **MM BIO-2B Avoid Mortality, Injury, or Disturbance and Maintain Habitat Function for Other Special-Status Wildlife Species**: If other special-status wildlife species (i.e., species not listed under CESA or ESA or California Fully Protected, but meeting the definition of special status as stated in Section 3.6.1 of the Program EIR) are observed during reconnaissance surveys (conducted pursuant to SPR BIO-1) or focused or protocol-level surveys (conducted pursuant to SPR BIO-10), the project proponent will avoid or minimize adverse effects to the species by implementing the following.
  - Avoid Mortality, Injury, or Disturbance of Individuals: The project proponent will implement the following to avoid mortality, injury, or disturbance of individuals:
    - For all treatment activities except prescribed burning, the project proponent will establish a no-disturbance buffer around occupied sites (e.g., nests, dens, roosts, middens, burrows, nurseries). Buffer size will be determined by a qualified RPF or biologist using the most current, commonly accepted science and will consider published agency guidance; however, buffers will generally be a minimum of 100 feet, unless site conditions indicate a smaller buffer would be sufficient for protection or a larger buffer would be needed. Factors to be considered in determining buffer size will include, but not be limited to, the species' tolerance to disturbance; the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; baseline levels of noise and human activity; and treatment activity. Buffer size may be adjusted if the qualified RPF or biologist determines that such an adjustment would not be likely to adversely affect (i.e., cause mortality, injury, or disturbance to) the species within the nest, den, burrow, or other occupied site. If a no-disturbance buffer is reduced below 100 feet from an occupied site, a qualified RPF or biologist will provide the project proponent with a site-and/or treatment activity-specific explanation for the buffer reduction, which will be included in the PSA. After completion of the PSA and prior to or during treatment implementation, if there is any deviation (e.g., further reduction) from the reduced buffer as explained in the PSA, this will be documented in the post-project implementation report (referred to by CAL FIRE as a Completion Report).
      - No-disturbance buffers will be marked with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). No activity will occur within the buffer areas until the qualified RPF or biologist has determined that the young have fledged or dispersed; the nest,

den, or other occurrence is no longer active; or reducing the buffer would not likely result in disturbance, mortality, or injury. A qualified RPF, biologist, or biological technician will be required to monitor the effectiveness of the no-disturbance buffer around the nest, den, burrow, or other occurrence during treatment. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in mortality, injury or disturbance to special-status species

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

- Maintain Habitat Function: For all treatment activities, the project proponent will design treatment activities to maintain the habitat function by implementing the following:
  - While performing review and surveys for SPR BIO-1 and SPR BIO-10, a qualified RPF or biologist will identify any habitat features that are necessary for survival (e.g., habitat necessary for breeding, foraging, shelter, movement)of the affected wildlife species (e.g., trees with complex structure, trees with large cavities, trees with nesting platforms; tree snags; large raptor nests [including inactive nests]; downed woody debris). These habitat features will be marked and treatments applied to the features will be designed to minimize or avoid the loss or degradation of suitable habitat for listed species during treatments. Identification and treatment of these features will be based on the life history and habitat requirements of the affected species and the most current, commonly accepted science.
  - If it is determined during implementation of SPR BIO-1 and SPR BIO-10 that special-status wildlife with specific requirements for high canopy cover (e.g., northern goshawk, Sierra Nevada snowshoe hare) are present within a treatment area, then tree or shrub canopy cover within existing suitable areas will be retained at the percentage preferred by the species (as determined by expert opinion, published habitat association information, or other documented standards that are commonly accepted) such that the habitat function is maintained.
- A qualified RPF or biologist will determine if, after implementation of the impact avoidance measures listed above, the habitat function will remain for the affected species after implementation of the treatment. The qualified RPF or biologist may consult with CDFW and/or USFWS for technical information regarding habitat function.
- A qualified RPF or biologist with knowledge of the special-status wildlife species habitat and life history will review the treatment design and applicable impact minimization measures (potentially including others not listed above) to determine if the anticipated residual effects of the treatment would be significant under CEQA because implementation of the treatment will not maintain habitat function of the special-status wildlife species' habitat or because the loss of special-status wildlife would substantially reduce the number or restrict the range of a special-status wildlife species. If the project proponent determines the impact on special-status wildlife would be less than significant, no further mitigation will be required. If the project proponent determines that the loss of special-status wildlife or degradation of occupied habitat would be significant under CEQA after implementing feasible treatment design alternatives and impact minimization measures, then Mitigation Measure BIO-2c will be implemented.
- The only exception to this mitigation approach is in cases where it is determined by a qualified RPF or biologist that the non-listed special-status wildlife would benefit from

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

- **MM BIO-2G:** ~~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. [see Project-Specific Implementation information]~~
    - ~~Treatment areas in occupied or suitable habitat will be divided into a sufficient number of treatment units such that the entirety of the habitat is not treated within the same year; the objective of this measure is to provide refuge for special-status bumble bees during treatment activities and temporary retention of suitable floral resources proximate to the treatment area.~~
    - ~~Treatments will be conducted in a patchy pattern to the extent feasible in occupied or suitable habitat, such that the entirety of the habitat is not burned or removed and untreated portions of occupied or suitable habitat are retained (e.g., fire breaks will be aligned to allow for areas of unburned floral resources for special-status bumble bees within the treatment area). Herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season (March through September)~~

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

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

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

No focused-level surveys are warranted as Crotch's bumble bee and western bumble bees are not expected to occur within the treatment area because it is outside the current range of both species. However, in an effort to improve the habitat for any future Crotch's bumble bees, western bumble bees, or other vulnerable bumble bees that may occupy the project area, the following Mitigation Measure is proposed:

1. The project would perform reconnaissance-level surveys prior to treatment per SPR BIO-1, and follow the avoidance measures listed in the original MM BIO-2g if listed bees are found.
2. No herbicide use is proposed in this project.
3. The project proponent will monitor post-burn areas and identify burn areas that are in need of supplemental native seed. These areas will be seeded with a native grass and forb seed mix in the fall or spring following grassland burning when adequate soil moisture is available for germination. Seeding specifications can be found in Tables 1 and 2

Prescribed Fire (Broadcast Burn)

Broadcast burn treatments will generally occur in fall and winter as weather conditions allow. Invasive medusa head grass areas will require early summer burning. Broadcast burn areas will be seeded with a native seed mix detailed in **Table 1 (grassland broadcast burn) or Table 2 (oak woodland/forest understory broadcast/pile burn).** Seeding should take place in the spring following broadcast burning.

Prescribed Fire (Pile Burn)

Pile burn treatments will generally occur in the fall and winter as weather conditions allow. Pile burn areas will be seeded with a native seed mix detailed in **Table 2.** Seeding should take place in the spring following pile burning.

Table 1. Post grassland broadcast burn native seed mix and application rates.

TREATMENT	SPECIFICATIONS	APPLICATION RATE
Native Grass Seed Mix	Install seed on bare soils using the following ratios: Elymus glaucus (30%), Festuca californica (20%) Bromus sitchensis (10%), Stipa pulchra (10%), Deschampsia cespetosa (10%) Festuca idahoensis (10%) Danthonia california (10%). Broadcast by hand or ATV spreader, rake or harrow in.	30 lbs/acre

Native Forb Seed Mix	Install seed on bare soils using the following ratios: Achillea millefolium (5%), Acmispon americanus var. americanus (5%), Clarkia amoena (10%), Escholzia californica (20%), Lupinus bicolor (20%), Ranunculus occidentalis (10%) Sysyrinchium bellum (10%), Trifolium willdenovii (20%); Broadcast by hand or ATV spreader, rake or harrow in.	15 lbs/acre

Table 2. Post oak woodland/forest pile burn and understory broadcast burn seed mix and application rates.

TREATMENT	SPECIFICATIONS	APPLICATION RATE
Native Grass Seed Mix (pile and broadcast burn)	Install seed on bare soils using the following ratios: Elymus glaucus (30%), Bromus sitchensis (20%), Festuca californica (50%), Broadcast by hand or ATV spreader, rake or harrow in.	40 lbs/acre

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

fuel break).

- Use prescribed burning as the primary treatment activity in sensitive natural communities that are fire dependent (e.g., closed-cone forest and woodland alliances, chaparral alliances characterized by fire-stimulated, obligate seeders), to the extent feasible and appropriate based on the fire regime attributes as described in Fire in California's Ecosystems (Van Wagtendonk et al. 2018) and the Manual of California Vegetation(Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/).
- Time prescribed herbivory to occur when non-target vegetation is not susceptible to damage (e.g. non-target vegetation is dormant or has completed its reproductive cycle for the year). For example, use herbivores to control invasive plants growing in sensitive habitats or sensitive natural communities when sensitive vegetation is dormant but invasive plants are growing. Timing of herbivory to avoid non-target vegetation will be determined by a qualified botanist, RPF, or biologist based on the specific vegetation alliance being treated, the life forms and life conditions of its characteristic plant species, and the sensitivity of the non-target vegetation to the effects of herbivory.

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

- **MM BIO-5 Retain Nursery Habitat and Implement Buffers to Avoid Nursery Sites:** The project proponent will implement the following measures while working in treatment areas that contain nursery sites identified in surveys conducted pursuant to SPR BIO-10:
  - Retain Known Nursery Sites. A qualified RPF or biologist will identify the important habitat features of the wildlife nursery and, prior to treatment activities, will mark these features for avoidance and retention during treatment.
  - Establish Avoidance Buffers. The project proponent will establish a non-disturbance buffer around the nursery site if activities are required while the nursery site is active/occupied. The appropriate size and shape of the buffer will be determined by a qualified RPF or biologist, based on potential effects of project-related habitat disturbance, noise, visual

disturbance, and other factors. No treatment activity will commence within the buffer area until a qualified RPF or biologist confirms that the nursery site is no longer active/occupied. Monitoring of the effectiveness of the non-disturbance buffer around the nursery site by a qualified RPF, biologist, or biological technician during and after treatment activities will be required. If treatment activities cause agitated behavior of the individual(s), the buffer distance will be increased, or treatment activities modified until the agitated behavior stops. The qualified RPF, biologist, or biological technician will have the authority to stop any treatment activities that could result in potential adverse effects to special-status species.

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

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

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

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

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

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

- **SPR GEO-7 Minimize Erosion:** To minimize erosion, the project proponent will:
  - Prohibit use of heavy equipment where any of the following conditions are present:
    - Slopes steeper than 65 percent.
    - Slopes steeper than 50 percent where the erosion hazard rating is high or extreme.
    - Slopes steeper than 50 percent that lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake.
  - On slopes between 50 percent and 65 percent where the erosion hazard rating is moderate, and all slope percentages are for average slope steepness based on sample areas that are 20 acres, or less, heavy equipment will be limited to:
    - Existing tractor roads that do not require reconstruction, or
    - New tractor roads flagged by the project proponent prior to the treatment activity.
  - Prescribed herbivory treatments will not be used in areas with over 50 percent slope.

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

EC-7: GREENHOUSE GAS EMISSIONS STANDARD PROJECT REQUIREMENTS

- **MM GHG-2 Implement GHG Emission Reduction Techniques During Prescribed Burns:** When planning for and conducting a prescribed burn, project proponents implementing a prescribed burn will incorporate feasible methods for reducing GHG emissions, including the following, which are identified in the National Wildfire Coordinating Group Smoke Management Guide for Prescribed Fire(NWCG 2018):
  - reduce the total area burned by isolating and leaving large fuels (e.g., large logs, snags) unburned;
  - reduce the total area burned through mosaic burning;
  - burn when fuels have a higher fuel moisture content;
  - reduce fuel loading by removing fuels before ignition. Methods to remove fuels include mechanical treatments, manual treatments, prescribed herbivory, and biomass utilization; and
  - schedule burns before new fuels appear.

  As the science evolves, other feasible methods or technologies to sequester carbon could be incorporated, such as conservation burning, a technique for burning woody material that reduces the production of smoke particulates and carbon released into the atmosphere and generates more biochar. Biochar is produced from the material left over after the burn and spread with compost to increase soil organic matter and soil carbon sequestration. Technologies to reduce greenhouse gas emissions may also include portable units that perform gasification to produce electricity or pyrolysis that produces biooil that can be used as liquid fuel and/or syngas that can be used to generate electricity. The project proponent will document in the Burn Plan required pursuant to SPR AQ-3 which methods for reducing GHG emissions can feasibly be integrated into the treatment design.

EC-8: ENERGY

- **NONE**

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

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

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

- **SPR HAZ-3 Require Fire Extinguishers:** The project proponent will require tree cutting crews to carry one backpack pump-type fire extinguisher filled with water ~~per chainsaw.~~ and each vehicle would be equipped with the required hand tools for firefighting ~~one long-handled shovel and one axe or Pulaski~~ consistent with PRC Section 4428. This SPR applies only to manual treatment activities and all treatment types, including treatment maintenance.

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

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

EC-10: HYDROLOGY AND WATER QUALITY STANDARD PROJECT REQUIREMENTS

- **SPR HYD-1 Comply with Water Quality Regulations:** Project proponents must also conduct proposed vegetation treatments in conformance with appropriate RWQCB timber, vegetation and land disturbance related Waste Discharge Requirements (WDRs) and/or related Conditional Waivers of Waste Discharge Requirements (Waivers), and appropriate Basin Plan Prohibitions. Where these regulatory requirements differ, the most restrictive will apply. If applicable, this

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

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

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

- **SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones:** The project proponent will establish Watercourse and Lake Protection Zones (WLPZs) on either side of watercourses as defined in the table below, which is based on 14 CCR Section 916 .5 of the California Forest Practice Rules (February 2019 version). WLPZ's are classified based on the uses of the stream and the presence of aquatic life. Wider WLPZs are required for steep slopes.

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

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

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

The following WLPZ protections will be applied for all treatments:

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

Treatment shall occur prior to October 15th and disturbances that are created after October 15th shall be treated within 10 days. Stabilization measures shall be selected that will prevent significant movement of soil into water bodies and may include but are not limited to mulching, rip-rap, grass seeding, or chemical soil stabilizers.

- Where mineral soil has been exposed by project operations on approaches to watercourse crossings of Class I, II, or III within a WLPZ, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts that would adversely affect the quality and beneficial uses of the watercourse.
- Where necessary to protect beneficial uses of water from project operations, protection measures such as seeding, mulching, or replanting shall be used to retain and improve the natural ability of the ground cover within the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.
- Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water.

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

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

EC-11: LAND USE AND PLANNING, POPULATION, AND HOUSING STANDARD PROJECT REQUIREMENTS

- **NONE**

EC-12: NOISE STANDARD PROJECT REQUIREMENTS

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

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

including treatment maintenance.

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

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

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

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

EC-13: RECREATION STANDARD PROJECT REQUIREMENTS

- **NONE**

EC-14: TRANSPORTATION STANDARD PROJECT REQUIREMENT

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

practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.

EC-15: PUBLIC SERVICES AND UTILITIES STANDARD PROJECT REQUIREMENTS

- **NONE**

EC-16: WILDFIRE

- **NONE**

EC-17: ADMINISTRATIVE STANDARD PROJECT REQUIREMENTS

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

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

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

- **SPR AD-4 Public Notifications for Prescribed Burning:** At least ~~three~~ one 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. At least three days prior to the commencement of prescribed burning operations, the project proponent will implement other public notifications as appropriate, potentially including any of the following: host public meetings; post notices on local, public bulletin boards; and contact project neighbors via telephone calls. ; ~~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~~ During this outreach the project proponent will describe~~ing~~ the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities and all treatment types, including treatment maintenance.

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

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

- **SPR AD-7 Provide Information on Proposed, Approved, and Completed Treatment Projects.** For any vegetation treatment project using the CalVTP PEIR for CEQA compliance, the project proponent will provide the information listed below to the Board or CAL FIRE during the proposed, approved, and completed stages of the project. The Board or CAL FIRE will make this information available to the public via an online database or other mechanism.
    - Information on proposed projects (PSA in progress):
    - GIS data that include project location (as a point);
    - 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;

- 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.

Attachment B – Biological Resources

VEGETATION AND HABITAT

The project area is located within the Northern California Coast ecoregion. Site visits (reconnaissance-level and 'early flower' botany surveys in 2023) were conducted to identify the California Wildlife Habitat Relationship (CWHR) habitats and vegetation types within the Marshall CalVTP project area. These CWHR habitats and vegetation types were further supported during review of aerial images and vegetation classification maps (the latter provided by the Mattole Restoration Council). Vegetation types within the project area include three CWHR habitats. The CWHR classifications were cross-referenced to *Manual of California Vegetation (MCV)* (CNPS 2023) alliances to identify sensitive natural communities that may occur within each CWHR type in this ecoregion. California Department of Fish and Wildlife's Natural Communities list was also utilized (CDFW 2023). Table B-1 lists the acreage and relative abundance of each CWHR habitat type in the project area, the corresponding MCV alliances that may be found in each CWHR type, and the alliances that are designated sensitive natural communities or that are dominated by nonnative species. BBWA conducted protocol level surveys for rare plants and sensitive natural communities pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018). Protocol level surveys were conducted across 109.3 acres of the project area and identified one sensitive natural community (BBWA, 2023). Alliances shown in bold font in Table B-1 are sensitive natural communities that are known to occur in the project area.

Table B-1 Vegetation and Habitat Types within the Marshall Prescribed Fire Project area

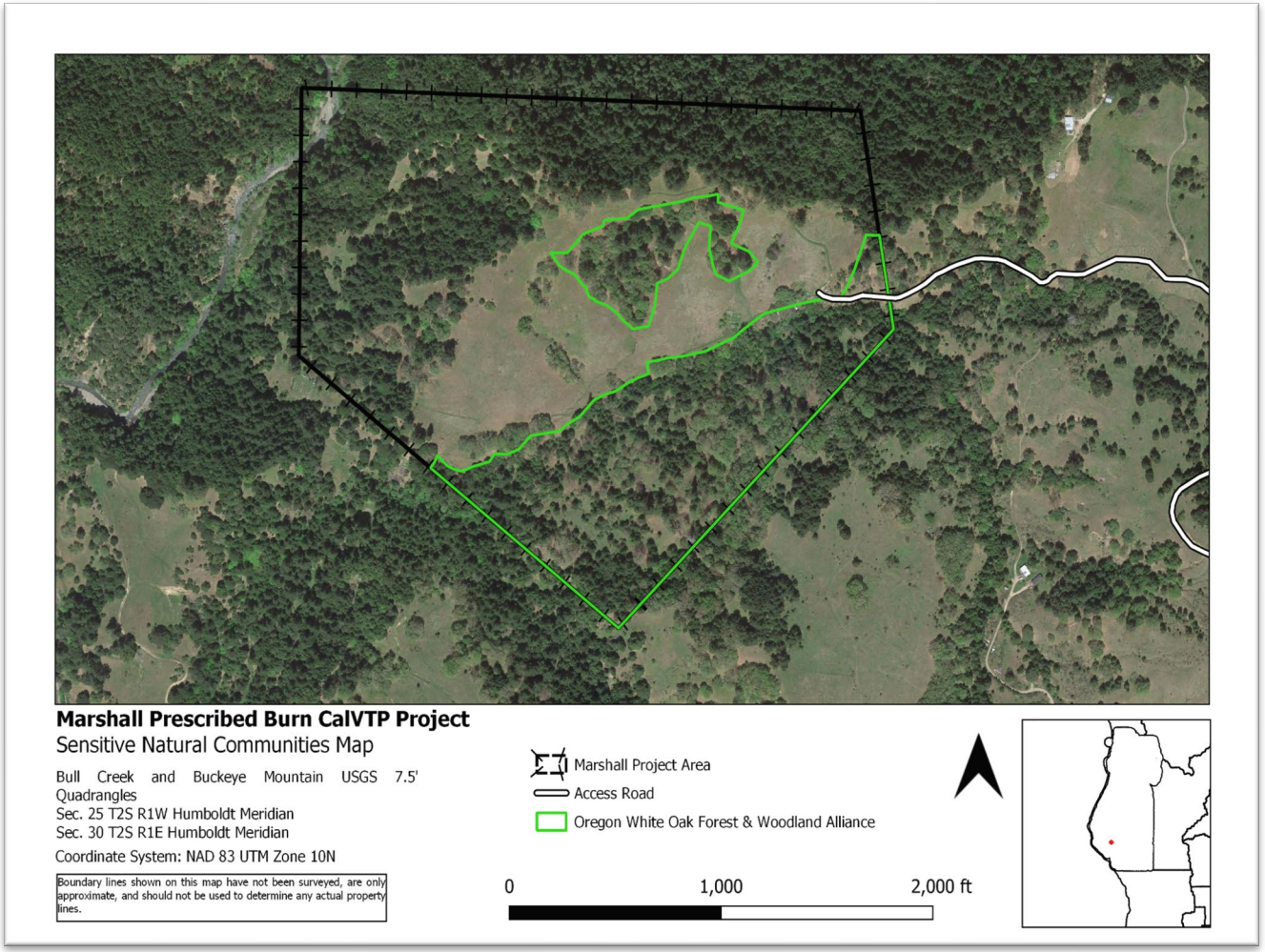
CWHR Classification	Acres	Percent of Project area	MCV Alliances
Woodland and Forest Habitats			
Douglas fir (DFR)	11.5	10.5%	Douglas fir forest
	35.3	32.3%	Douglas fir - Tanoak forest - Madrone forest & woodland
Montane Hardwood (MHW)	37.0	33.9%	Oregon White Oak[1]
Herbaceous Habitats			
Annual Grassland (AGS)	25.5	23.3%	Avena spp. - Bromas spp. Herbaceous Semi-Natural Alliance
Total	109.3		

1 These are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable).

SENSITIVE NATURAL COMMUNITIES

Upon review of occurrence data and habitat present, there is one sensitive natural community known to occur in the CWHR habitat types present in the project area, the Oregon White Oak *Quercus garryana* (tree) Forest & Woodland Alliance. The Oregon White Oak *Quercus garryana* (tree) Forest & Woodland Alliance was observed during protocol level surveys for rare plants and sensitive natural communities (CDFW 2018). The entire project area was covered during

protocol level surveys.



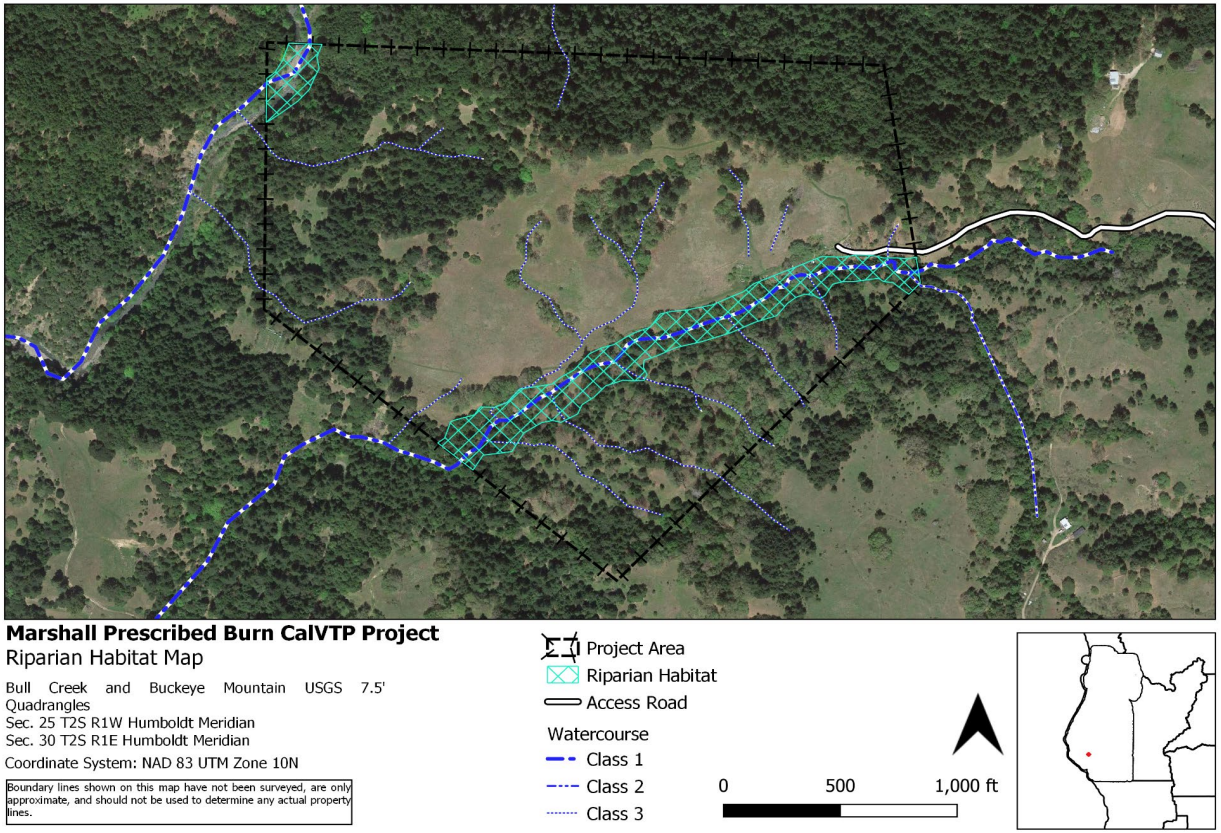
Sensitive Habitats

OAK WOODLAND

1 oak woodland species (see Table B-1 above) has been identified as present in the project area, Oregon white oak. Oregon white oak are present in the center

of the project area that is classified as Montane Hardwood CWHR. Treatments have been designed to restore the natural fire regime and return vegetation composition and structure to their natural condition to maintain and improve habitat function of Oregon white oak. Treatments will be designed to replicate the fire regime attributes for the 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. No fuel breaks will be created within the oak woodland habitat.

RIPARIAN HABITAT



The project area contains two Class I watercourses (the Upper North Fork Mattole River and an unnamed perennial watercourse in the southern portion of the project area) in addition to numerous Class II and Class III watercourses. WLPZs ranging from 50 to 100 feet will be established adjacent to all Class I and II streams within the project area. SPR BIO-4 will also apply to avoid loss or degradation of riparian habitat function.

SPECIAL-STATUS SPECIES

Table B-2 of this attachment presents special-status plant and wildlife species that are known to occur in the project region, which includes the following U.S.

Geological Survey 7.5' quadrangles surrounding the project area: Capetown, Taylor Peak, Scotia, Redcrest, Petrola, Buckeye Mountain, Bull Creek, Weott, Cooskie Creek, Shubrick Peak, Honeydew, Ettersburg. The table was developed through a review of the CalVTP, relevant databases and other available information, per SPR BIO-1. Data reviewed included the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records (CNDDB 2022a; CNPS 2022b), Consortium of California of Herbaria (CCH2 2022), Jepson eFlora (Jepson Flora Project 2022), and Calflora (Calflora 2022). The table also includes an assessment of species potential to occur in the project area, and summaries of the potential impacts from the project on each special-status plant and wildlife.

Table B-2 Special-Status Plant Species Known to Occur in the Vicinity of the Treatment Areas and Their Potential for Occurrences in the Treatment Areas

Species	Listing Status[1] Federal	Listing Status[1] State	Status CRPR/Other	Habitat and Blooming Period	Potential for Occurrence[2]
Leafy reed grass *Calamagrostis foliosa*	-	Rare	4.2	Coastal bluff scrub and North Coast coniferous forest habitats, often with a rocky component. 0–1,220 meters in elevation. Blooms May – September.	May Occur. North Coast coniferous forest habitat potentially suitable for this species is present within the project area. Though uncommon, *C. foliosa* is known to be locally abundant, with its highest occurrences recorded just to the south in the King Range National Conservation Area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Seaside bitter cress *Cardamine angulata*	-	-	2B.2	Lower montane coniferous forest and North Coast coniferous forest habitats. 15 – 915 meters in elevation. Blooms (Jan) March – July.	May Occur. Lower montane coniferous forest and North Coast coniferous forest habitats potentially suitable for this species are present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Northern clustered sedge *Carex arcta*	-	-	2B.2	Bogs & fens and North Coast coniferous forest habitats (mesic). 60–1,400 meters in elevation. Blooms June–September.	May Occur. North Coast coniferous forest habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Giant fawn lily *Erythronium oregonum*	-	-	2B.2	Cismontane woodland and meadow & seeps habitats. Within these habitats this species is found in openings with a	May Occur. Cismontane woodland and meadow & seeps habitats potentially suitable for this species are present

				rocky component, sometimes with serpentinite. 100 – 1150 meters in elevation. Blooms March – June (July).	within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Coast fawn lily *Erythronium revolutum*	-	-	2B.2	Bogs and fens, broad-leafed upland forest, and North Coast coniferous forest habitats. Often found in mesic sites/along streambanks. 0 – 1600 meters in elevation. Blooms March – July (August).	May Occur. North Coast coniferous forest habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Pacific gilia *Gilia capitata* ssp. *pacifica*	-	-	1B.2	Chaparral (openings), Coastal bluff scrub, Coastal prairie, and Valley & foothill grassland habitats. 5 – 1665 meters in elevation. Blooms April – August.	May Occur. Valley & foothill grassland habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Howell's montia *Montia howellii*	-	-	2B.2	Meadows and seeps, North Coast coniferous forest and Vernal pools habitats; roadsides (sometimes) and vernally mesic. 0 – 835 meters in elevation. Blooms (February) March – May.	May Occur. Meadows & seeps and North coast coniferous forest habitats potentially suitable for this species are present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Wolf's evening-primrose *Oenothera wolfii*	-	-	1B.1	Coastal bluff scrub, Coastal dunes, Coastal prairie, and Lower montane coniferous forest habitats; mesic (usually) and sandy. 3 – 800 meters in elevation. Blooms May – October.	May Occur. Lower montane coniferous forest habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Seacoast ragwort *Packera bolanderi var. bolanderi*	-	-	2B.2	Coastal scrub and North Coast coniferous forest habitats. 30 – 650 meters of elevation. Blooms (Jan– Apr) May – Jun (Aug).	May Occur. North Coast coniferous forest habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
White-flowered rein orchid *Piperia candida*	-	-	1B.2	Broad-leafed upland forest, Lower montane coniferous forest, and North Coast coniferous forest habitats; sometimes serpentinite. 20-1310	**May Occur*.** Lower montane coniferous forest and North Coast coniferous forest habitats potentially

				meters in elevation. Blooms (Mar-Apr) May-Sep.	suitable for this species are present within the project area. *During a botanical survey on 5/9/2023, a small population of *Piperia* sp. was recorded within the treatment area but they could not be identified to species due to a lack of open flowers. The site was revisited on 07/23/2023, but all the plants were gone (likely eaten by an herbivore). The site will be treated as *P. candida* unless future surveys determine otherwise.
Oregon polemonium *Polemonium carneum*	-	-	2B.2	Coastal prairie, Coastal scrub, and Lower montane coniferous forest habitats; often roadcuts and roadsides. 0 – 1830 meters in elevation. Blooms Apr – Sep.	May Occur. Lower montane coniferous forest habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Siskiyou checkerbloom *Sidalcea malviflora ssp. patula*	-	-	1B.2	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest habitats; often in roadcuts and roadsides. 15-1,230 meters in elevation. Blooms (Mar) May-Aug.	May Occur. North Coast coniferous forest habitat potentially suitable for this species is present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Hitchcock's blue-eyed grass *Sisyrinchium hitchcockii*			1B.1	Cismontane woodland and Valley & foothill grassland habitats. 200-300 meters in elevation. Blooms May & June.	May Occur. Cismontane woodland and Valley & foothill grassland habitats potentially suitable for this species are present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.
Beaked tracyina *Tracyina rostrata*	-	-	1B.2	Chaparral, Cismontane woodland, and Valley & foothill habitats. 90-1270 meters in elevation. Blooms May & Jun.	May Occur. Cismontane woodland and Valley & foothill grassland habitats potentially suitable for this species are present within the project area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.

Coastal Douglas Fir/Western Hemlock Forest	**-**	**S2.1**	-	North Coast coniferous forest habitat.	Not expected to occur. The only CNDDB occurrence for this forest type is located ~8.5 miles to the west of the plan area and just off the immediate coast. However, this forest type is not present in or adjacent to the treatment area. Was not observed during protocol level surveys on May 9, 2023 and July 23, 2023.

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

Status Codes:

E = Federally or State listed as Endangered
T = Federally or State listed as Threatened
R = State listed as Rare

CRPR Codes:

CRPR 1A: Plant species that are presumed extirpated or extinct because they have not been seen or collected in the wild in California for many years. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.
CRPR 1B: Plants rare, threatened, or endangered in CA and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
CRPR 3: More information is need about plant
CRPR 4: Plant of limited distribution, a watch list
CRPR .1: Seriously threatened in CA
CRPR .2: Fairly threatened in CA
CRPR .3: Not very threatened in CA

Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
May occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.
Known to occur: The species has been observed within the treatment areas.

Sources: CNDDB 2023; CNPS 2023

Table B-2 Special-Status Wildlife Species Known to Occur in the Vicinity of the Treatment Areas and Their Potential for Occurrences in the Treatment Areas

Species	Listing Status Federal	Listing Status State	Habitat	Potential for Occurrence
Amphibians				
Pacific tailed frog *Ascaphus truei*	-	SSC	Aquatic, Klamath/North coast flowing waters, lower montane coniferous forest, North coast coniferous forest, and redwood habitats; restricted to perennial montane streams; tadpoles require water below 15° C.	May occur. There are 12 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area, the closest observation located ~3.75 miles to the south. Potential suitable habitat for this species can be found within the watercourses intersecting the treatment area.
Western pond turtle *Emys marmorata*	-	SSC	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, and Klamath/North coast standing waters. This species is a thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation; <6000. Elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	May Occur. There are CNDDB occurrences for this species in the nearby Mattole River.
Northern red-legged frog *Rana aurora*	-	SSC	Suitable habitat for northern red-legged frogs includes humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover. This species is generally found near permanent water, but can be found far from	May Occur. There are 10 CNDDB occurrences for this species within a 9(12)-quad query and suitable habitat for this species is present within the treatment area.

			water, in damp woods and meadows, during non0-breeding season.	
Foothill yellow-legged frog - north coast DPS *Rana boylii* pop. 1	-	SSC	This species can be found in Aquatic, Klamath/North coast flowing waters, Riparian forest, and Riparian scrub habitats. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sizzed substrate for egg-laying and at least 15 weeks to attain metamorphosis.	***Known to Occur.*** Two adult foothill yellow-frogs were observed on 4/12/2023 in the unnamed Class I tributary of the Upper North Fork Mattole River that runs through the southern portion of the treatment area. There are also numerous CNDDB occurrences for this species in the nearby Mattole River. Wheeler and Welsh (2008) observed adult frogs in breeding and non-breeding habitats regardless of season.
Southern torrent salamander *Rhyacotriton variegatus*	-	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	May Occur. There are 12 CNDDB occurrences for the southern torrent salamander within a 9(12)-quad query of the treatment area, the closest observation located ~4.3 miles to the northeast. Suitable habitat exists in the perennial water courses within the treatment area.
Red-bellied newt *Taricha rivularis*	-	SSC	Found in coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Lives in terrestrial habitats, juveniles generally underground, adults active at the surface in moist environments. Will migrate >1 km to breed, typically in streams with moderate flow & clean, rocky substrate.	May Occur. There are 2 CNDDB occurrences for this species in Humboldt County; the closest is a 1937 record located adjacent to the Mattole River approximately 2 miles to the south of the treatment area.
Birds				
Golden eagle *Aquila chrysaetos*	-	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of	May occur. There are 10 recorded CNDDB occurrences for golden eagle nests within a 9(12)-quad query of the treatment area, the closest observation located ~1.25 miles

			their range; also, large trees in open areas.	to the north; all nests were associated with old-growth Doug-fir stands. Golden eagles may forage within the treatment area; however, suitable nesting habitat for this species in the form of large open areas is lacking within the treatment area.
Marbled murrelet *Brachyramphus marmoratus*	FT	SE	Lower montane coniferous forest, old-growth, and redwood habitats; feeds near-shore; nests inland along the coast from the Eel River to the Oregon border and from Half Moon Bay to Santat Cruz.	Not expected to occur. There are 10 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area, all within old-growth stands adjacent to the Eel River to the east. Even though the Mattole River corridor could potentially be used as a flyway to access more inland sites, suitable habitat (e.g. redwood-dominated old-growth stands with large limbs, etc.) is lacking from the treatment area and adjacent forests.
Northern Harrier *Circus hudsonius*	-	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	May occur. There is a single CNDDB observation for northern harriers for Humboldt County located in the marshlands adjacent to Humboldt Bay. This species could use the grasslands within the treatment area for forage and nearby forests for nesting. Bird nest surveys conducted prior to treatments will identify any potential nest trees. Treatments will improve habitat for this species by removing encroaching Douglas fir from the grasslands.
American peregrine falcon *Falco peregrinus anatum*	FD	SD FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scarp, depression, or ledge in an open site.	May occur. This species may forage within the treatment area in the open grassland or oak woodlands; however, nesting habitat for peregrine falcons is not present.
Bald Eagle *Haliaeetus leucocephalus*	FD	SE FP	Habitats include ocean shores, lake margins, and rivers for both nesting and wintering. Most	May Occur. There are numerous CNDDB occurrences for bald eagles in Humboldt County primarily associated with Humboldt

			nests are within 1 mile of water. This species nests in large, old-growth, or dominant live trees with open branches, especially ponderosa pine. Roosts communally in winter.	Bay and the larger river systems, though none reported within the 9-quad search surrounding the treatment area. There is potential nesting habitat in the older stands around the Mattole River, but fish abundance in that system is likely too low to support bald eagles.
Osprey *Pandion haliaetus*	-	SSC	Habitats include ocean shores, bays, freshwater lakes, and larger streams. They build large nests in tree-tops or human-made structures (e.g., power poles, radio towers, etc.) within 15 miles of good fish-producing bodies of water.	May Occur. There are 15 CNDDB occurrences for this this species, the closest >12 miles to the north in the Eel River riparian corridor. It is conceivable that there are unrecorded osprey nests present along the nearby Mattole River, though suitable habitat for this species is generally lacking within the treatment area.
Fish				
Coho salmon - southern Oregon/Northern California ESU *Oncorhynchus kisutch pop. 2*	FT	ST	Federal listing includes populations between Cape Blanco, Oregon and Punta Gorda, Humboldt County, California. State listing includes populations between the Oregon border and Punta Gorda, Humboldt County, California. This species requires beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water, and sufficient dissolved oxygen.	May occur within the small section of the North Fork Mattole River that intersects the northern edge of the treatment area. Not expected to occur within the smaller water course running through the southern region of the treatment area due to a known fish-barrier located downstream to the west. Proposed treatments will not adversely affect water temperatures or potential spawning beds within the Mattole River.
Steelhead - northern California DPS summer-run *Oncorhynchus mykiss irideus*	FT	SE	The federal designation refers to naturally spawned populations residing below impassable barriers in coastal basins from Redwood Creek in Humboldt County to, and including, the Gualala River in Mendocino County. This species requires beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool	May occur within the small section of the North Fork Mattole River that intersects the northern edge of the treatment area. Not expected to occur within the smaller water course running through the southern region of the treatment area due to a known fish-barrier located downstream to the west. Proposed treatments will not adversely affect water temperatures or

			water, and sufficient dissolved oxygen.	potential spawning beds within the Mattole River.
Invertebrates				
Crotch bumble bee *Bombus crotchii*		SC	Coastal California east to the Sierra-Cascade crest and south into Mexico, though current available data finds this species to be extirpated from the general area and now primarily persists in suitable habitats in coastal southern California as well as a few isolated populations in the northern Central Valley around Sacramento, Chico and to the west in Mendocino National Forest (NatureServe 2019; Xerces Society et al. 2019). Meadows and grasslands with abundant flowering resources. Preferred food genera for this species include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	Not Expected to Occur. The treatment area contains potential suitable habitat in the open meadows. There is a single observation for the Crotch bumble bee in Humboldt County from June 27, 1976 (CNDDB 2023) located approximately 45 miles to the north of the treatment area.
Western bumble bee *Bombus occidentalis*	-	SC	Meadows and grasslands with abundant flowering resources. This species was historically found throughout California but available current data finds this species to be extirpated from the immediate coast and limited to mostly high elevation meadows and coastal areas	Not Expected to Occur. There are 5 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area, the closest observation located ~7.4 miles to the east. The treatment area contains potential suitable habitat for this species in the open meadows, though this species is believed to be extirpated from the immediate Pacific coast.
Mammals				
Pallid bat *Antrozous pallidus*	-	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high	May occur. There are 3 recorded CNDDB occurrences of this species in Humboldt County. Habitat potentially suitable for pallid bats in the form of large trees and

			temperatures. Very sensitive to disturbance of roosting sites.	rocky areas is generally lacking from the treatment area.
Sonoma tree vole *Arborimus pomo*	-	SSC	North coast coniferous forest, old-growth, and redwood habitats; North coast fog belt from Oregon border to Sonoma County, redwood, and montane hardwood-conifer forests; feeds almost exclusively on Douglas fir needles, occasionally needles of grand fir, hemlock & spruce.	May occur. Suitable habitat for this species is present and there are 13 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area.
Townsend's big-eared bat *Corynorhinus townsendii*	-	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	May occur. There are 4 recorded CNDDB occurrences within a 9(12)-quad query of the treatment area, the closest located approximately 8.5 miles to the south. Roost sites in the form large trees with goose pens are generally lacking from the treatment area; if present, these structures will not be targeted by treatment activities.
Western Red Bat *Lasiurus blossevillii*		SSC	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers riparian habitat near water, and roost in primarily in hardwoods (e.g., sycamore, cottonwood, velvet ash, and elder trees (Bat Conservation International 2023).	May occur. There are 6 CNDDB occurrences for this species within the 9-quad search of the treatment area, all located approximately 7 miles to the northeast within the Bull Creek riparian corridor. Potential suitable habitat is present along the creeks within the treatment area.
Pacific Fisher *Pekania pennanti*	-	SSC	Suitable fisher habitat is found in intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percentage canopy closure. They will use cavities, snags, logs and rocky areas for cover and denning. They need large areas of mature, dense forest.	May Occur. There are 3 recorded CNDDB occurrences for this species within a 9(12)-quad query of the treatment area, the closest located just over 3.5 miles to the west. The treatment area could be within the home range of a fisher, though mature, dense forests are generally lacking within the project footprint.
American Badger *Taxidea taxus*	-	SSC	Most abundant in drier open stages of most shrub, forest, and	May Occur. There is a single CNDDB occurrence for this species located

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			herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	approximately 3.25 miles to the southwest of the treatment area. The treatment area contains potential suitable habitat in the small grassland in the middle of the treatment area.

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

1 **Legal Status Definitions Federal:**

FE Federally Listed as Endangered (legally protected)
FT Federally Listed as Threatened (legally protected)
FD Federally Delisted

State:

FP Fully protected (legally protected)
SSC Species of special concern (no formal protection other than CEQA consideration)
SE State Listed as Endangered (legally protected)
ST State Listed as Threatened (legally protected) SC State Candidate for listing (legally protected) **SD** State Delisted

2 **Potential for Occurrence Definitions**

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

Attachment C – Hazardous Materials

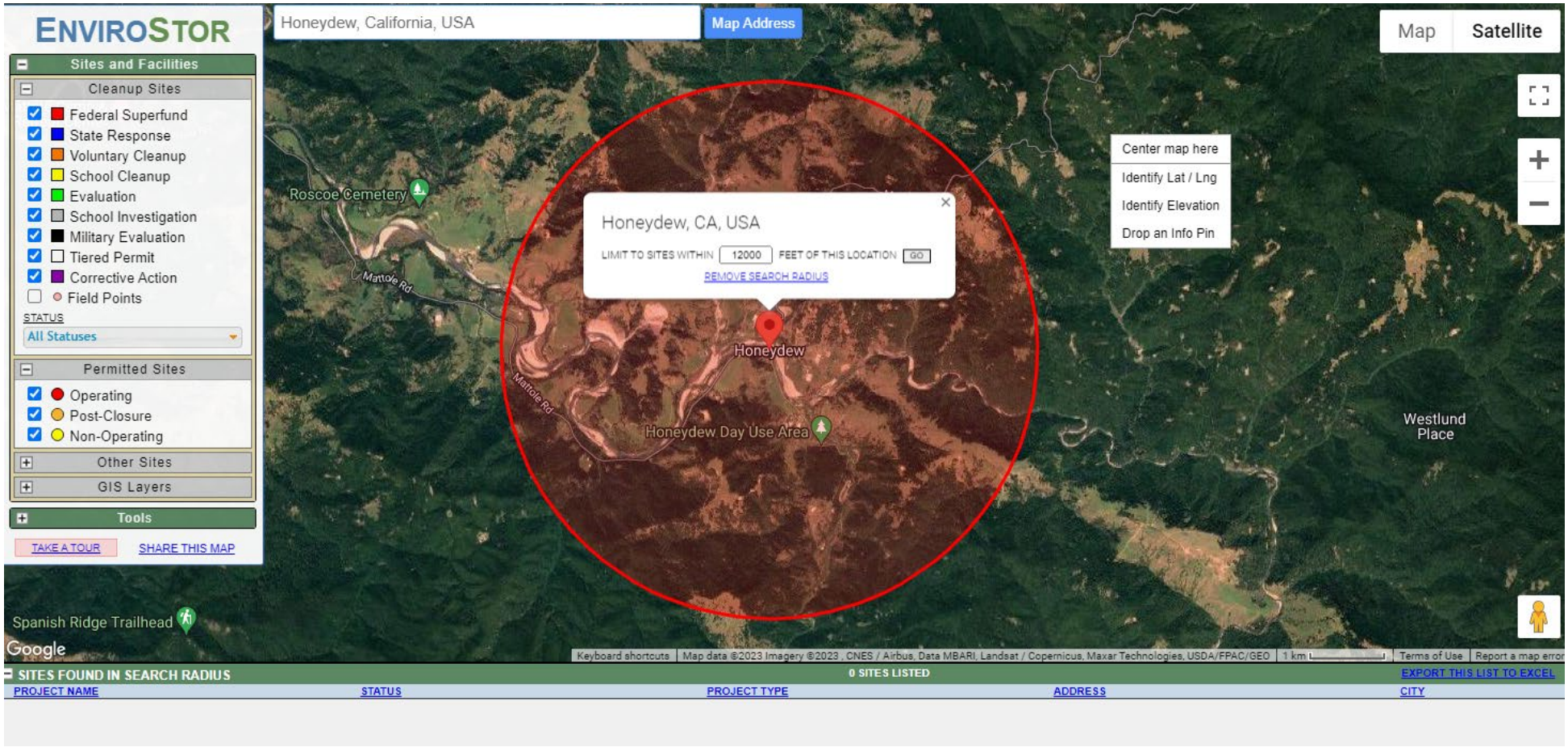
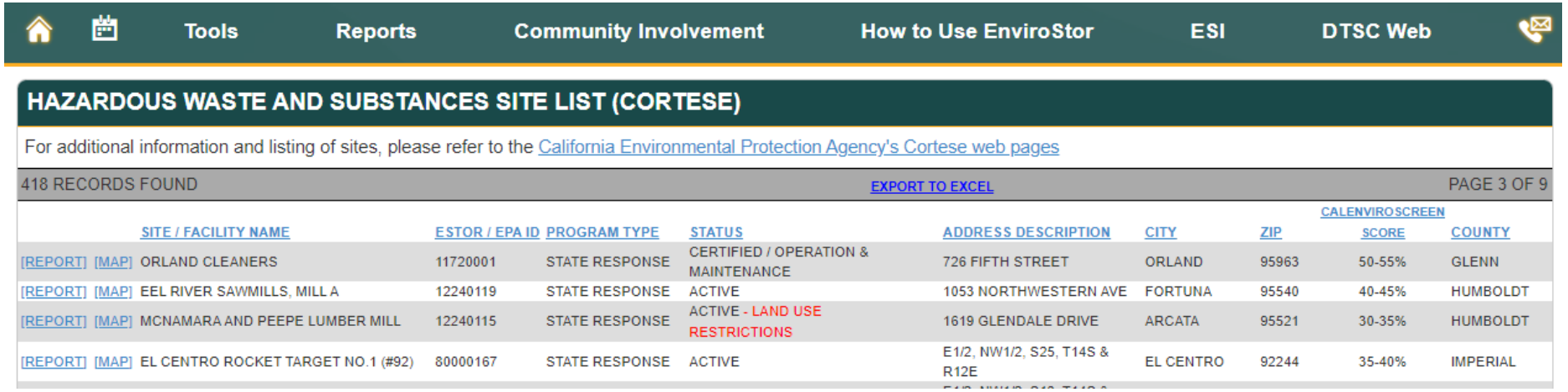


Figure 1. DTSC EnviroStar web search returned 0 results in and around project area.



		SITE / FACILITY NAME	ESTOR / EPA ID	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION	CITY	ZIP	CALENVIROSCREEN SCORE	COUNTY
[REPORT]	[MAP]	ORLAND CLEANERS	11720001	STATE RESPONSE	CERTIFIED / OPERATION & MAINTENANCE	726 FIFTH STREET	ORLAND	95963	50-55%	GLENN
[REPORT]	[MAP]	EEL RIVER SAWMILLS, MILL A	12240119	STATE RESPONSE	ACTIVE	1053 NORTHWESTERN AVE	FORTUNA	95540	40-45%	HUMBOLDT
[REPORT]	[MAP]	MCNAMARA AND PEEPE LUMBER MILL	12240115	STATE RESPONSE	ACTIVE - LAND USE RESTRICTIONS	1619 GLENDALE DRIVE	ARCATA	95521	30-35%	HUMBOLDT
[REPORT]	[MAP]	EL CENTRO ROCKET TARGET NO.1 (#92)	80000167	STATE RESPONSE	ACTIVE	E1/2, NW1/2, S25, T14S & R12E	EL CENTRO	92244	35-40%	IMPERIAL

Figure 2. DTSC's Cortese List search returned 0 results in and around project area. There are only two sites in Humboldt County and both are in the northern portion of the county.

Table 1. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. No results in or around the project area.

County	City	Region	SWATR	Waste Discharge System No.	Solid Waste ID No.	Waste Management Unit Name	Facility Name	Agency Name
Del Norte	Crescent City	1	2	1A880520 NSL-01		Del Norte County-Pesticide Storage	Del Norte Pesticide Storage AR	Del Norte, County of
Contra Costa	Pittsburg	2	1	2 071059002 -02	07-A1-0001	U.S. Steel Corp.-Pittsburg Site LA	WDR-USS-POSCO	USS-POSCO
Solano	Vallejo	2	1	2 482011003 -01	48-AA-0008	US Navy Mare Island Sanitary Landfill	WDR-Naval Shipyard/Class I LAN	Mare Island Naval Shipyard
Contra Costa	Richmond	2	3	2 071007002 -01		Chevron Chemical Company-Old Sites	WDR-Ortho DIV-Richmond Plant	Chevron Chemical Company
Monterey	Fort Ord (Marina)	3	1	3 270301004 -01	27-AA-0015	Fort Ord Landfill	Sanitary Landfill	U.S. Army, Fort Ord
Santa Barbara	Lompoc	3	3	3 420305001 -01	42-AA-0017	Lompoc City Landfill	Solid Waste Disposal Site	Lompoc City

Los Angeles	Monterey Park	4	1	4B190332001-01	19-AM-0001	Operating Industries Landfill	Operating Industries, Inc.	Operating Industries, Inc.
Tulare	Woodlake	5F	1	5D540300010-01	54-AA-0007	Tulare County-Woodlake Landfill	Woodlake SWDS	Tulare, County of
Fresno	Fresno	5F	2	5D100300001-01		Mckinley Ave. Yard	T.H. Agriculture and Nutrition	North American Phillips
Kings	Corcoran	5F	2	5D160302001-01	16-AA-0011	Kings County-Corcoran Landfill	Corcoran SWDS	Kings County Waste Mgmt Auth.
Fresno	Fresno	5F	3	5D100319001-01	10-AA-0013	Orange Avenue Disposal Company	Orange Avenue Landfill	Orange Avenue Disp Co. Inc
Tulare	Exeter	5F	3	5D540300003-01	54-AA-0002	Tulare County-Exeter Disposal Site	Exeter SWDS	Tulare, County of
Merced	Atwater	5F	4	5C240115001-01		Atwater City	Bert Crane Road Landfill	Atwater, City of
Fresno	Fowler	5F	5	5D100325N01-01		Fowler City	Fowler City Landfill (Old)	Fowler, City of
Butte	Oroville	5R	2	5A042005001-01		Koppers Company-Oroville Site	Koppers Wood Preserving ISW	Koppers Industries Inc.
Butte	Chico	5R	4	5A040302N01-01		Chico City Burn Dump	Humboldt Road Landfill	Chico, City of
Sacramento	Sacramento	5S	1	5A340700003-01	34-AA-0008	US Air Force-McClellan AFB	Landfill Class III Site 8 (Closure)	US Air Force-McClellan AFB
Sacramento	Mather (Rancho Cordova)	5S	2	5A340700001-01		US Air Force-Mather Field Landfill	Mather AFB Environmental Mgmt	US Air Force – Mather AFB
Sacramento	Sacramento	5S	3	5B342000N01-01		Sacramento Army Depot	Sacramento Army Depot	U.S. Army
San Joaquin	Stockton	5S	3	5 390002NUR-01	39-AA-0006	US Navy Communications Landfill	U.S.N. Communication STA. Landf	U.S. Navy Communications
San Joaquin	French Camp	5S	3	5 390003NUR-01		US Army-Sharpe Army Depot	US Army-Sharpe Army Depot	US Army
San Joaquin	Tracy	5S	5	5 390006NUR-01		Site 300 (Other 39 WMUS)	Lawrence Livermore Lab	Lawrence Livermore Labs

Inyo	Keeler	6V	1	6B142000041-01	14-AA-0008	US Tungsten Owens Lake Landfill	Owens Lake Landfill	Umetco Minerals Corporation
Orange	Fullerton	8	1	8300002NUR-01		Mccoll Site	Mccoll Sludge Disposal Site	Toxic Substances Control Divis
Riverside	Riverside	8	1	8 330325001-01		Stringfellow Quarry Acid Pits	State of California-Stringfellow	Toxic Program Management Sect

References

Airola, D. A., and N. Shubert. 1981. Reproductive success, nest site selection, and management of ospreys at Lake Almanor, California. Cal-Neva Wildlife Trans. 1981:79-85

Bingham, B.B., & Sawyer, J.O. (1992). Canopy structure and tree condition of young, mature, and old-growth Douglas-fir/hardwood forests.

Buchalski MR, Fontaine JB, Heady PA III, Hayes JP, Frick WF (2013) Bat Response to Differing Fire Severity in Mixed-Conifer Forest California, USA. PLoS ONE 8(3): e57884. https://doi.org/10.1371/journal.pone.0057884

Calflora. 2022. Information on Wild California plants. Available: https://www.calflora.org/search.html. Accessed June 2022.

California Consortium of Herbaria 2. 2023. CCH2 data portalhttps://cch2.org/portal/index.php. Accessed March 2023.

California Department of Toxic Substances Control. 2023. EnviroStor Database. Available: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=los+gatos+ca%2C+santaclara+county%2C+ca. Accessed March 11, 2023.

California Department of Transportation. 2023. Scenic Highways. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed: March 10, 2023.

California Department of Fish and Wildlife. 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline. Accessed March 2023.

California Environmental Protection Agency. 2023. Cortese List Database. Available: https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf. Accessed March 10, 2023.

California Native Plant Society. 2023. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available: http://www.rareplants.cnps.org.

California Natural Diversity Database. 2023. Results of electronic records search. Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch.

Churchill, R.K., and Hill, R.L., 2000, A general location guide for ultramafic rocks in California—Areas more likely to contain naturally occurring asbestos: California Department of Conservation, Division of Mines and Geology, DMG Open-File Report 2000-19, 1 plate, scale 1:1,100,000

Cocking, M. I., J. M. Varner, and R. L. Sherriff. 2012. California black oak responses to fire severity and native conifer encroachment in the Klamath Mountains. Forest Ecology

and Management 270:25-34.

Craighead, J. J., and F. C. Craighead, Jr. 1956. Hawks, owls and wildlife. Stackpole Books, Harrisburg, PA. 443p.

Dechant, J. A., Sondreal, M. L., Johnson, D. H., Igl, L. D., Goldade, C. M., Nenneman, M. P., & Euliss, B. R. (2002). Effects of management practices on grassland birds: Northern Harrier.

Governor's Office of Planning and Research. 2018 (December). *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Available: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed June 21, 2022.

Huck, K. L. (2010). *Reproductive den habitat characterization of American badgers (Taxidea taxus) in central California*. San Jose State University.

Ice, G. G., Neary, D. G., & Adams, P. W. (2004). Effects of wildfire on soils and watershed processes. Journal of Forestry, 102(6), 16-20.

Jepson Flora Project (eds.). 2023. Jepson eFlora, Available: https://ucjeps.berkeley.edu/eflora/. Accessed: March 2023.

Lee, C. (2009). Sudden oak death and fire in California. California Oak Mortality Task Force.

Lower Mattole Community Wildfire Protection Plan (2016).

Matthews, S. M., Green, D. S., Higley, J. M., Rennie, K. M., Kelsey, C. M., & Green, R. E. (2019). Reproductive den selection and its consequences for fisher neonates, a cavity-obligate mustelid. Journal of Mammalogy, 100(4), 1305-1316.

Natural Resources Conservation Service. 2023. Soil classification maps. Available: https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/class/maps/.

Penrod, K., P. E. Garding, C. Paulman, P. Beier, S. Weiss, N. Schaefer, R. Branciforte and K. Gaffney. 2013. Critical Linkages: Bay Area & Beyond. Produced by Science & Collaboration for Connected Wildlands, Fair Oaks, CA www.scwildlands.org in collaboration with the Bay Area Open Space Council's Conservation Lands Network www.BayAreaLands.org.

Pierson, E.D., W.E. Rainey and C. Corben. 2006. Distribution and status of Western red bats (Lasiurus blossevillii) in California. Calif. Dept. Fish and Game, Habitat Conservation Planning Branch, Species Conservation and Recovery Program Report 2006-04, Sacramento, CA 45 pp.

Quinn, J. H. (2008). *The ecology of the American badger Taxidea taxus in California: assessing conservation needs on multiple scales*. University of California, Davis.

Reese, D. A., & Welsh, H. H. (1997). Use of terrestrial habitat by western pond turtles, Clemmys marmorata: implications for management. In Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles, an International Conference.

New York Turtle and Tortoise Society (pp. 352-357).

Robles, M. D., Marshall, R. M., O'Donnell, F., Smith, E. B., Haney, J. A., & Gori, D. F. (2014). Effects of climate variability and accelerated forest thinning on watershed-scale runoff in southwestern USA ponderosa pine forests. PloS one, 9(10), e111092.

Roche JW, Ma Q, Rungee J and Bales RC (2020) Evapotranspiration Mapping for Forest Management in California's Sierra Nevada. Front. For. Glob. Change 3:69. doi: 10.3389/ffgc.2020.00069

Roscoe, James. 1985. An Ethnohistory of the Mattole. Cal Poly Humboldt University, Arcata, CA.

Roscoe, Neb. 1991. Heydays in Humboldt. Illiana Limited, Mckinleyville, CA.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA. 1300 pp.

Schriver, M., R. L. Sherriff, J. M. Varner, L. Quinn-Davidson, and Y. Valachovic. 2018. Age and stand structure of oak woodlands along a gradient of conifer encroachment in northwestern California. Ecosphere 9(10):e02446. 10.1002/ecs2.2446

Skalos, S. M. (2021). Reproductive and Migration Ecology of Breeding and Wintering Northern Harriers (Circus hudsonius) in Suisun Marsh, California. -University of California, Davis.

Stuart, J. D., and S. L. Stephens. 2006. North coast bioregion. In: Fire in California's Ecosystems. N. G. Sugihara, J. W. van Wagtendonk, K. E. Shaffer, J. Fites-Kaufman, and A. E. Thode (eds.). University of California Press, Berkeley. pp. 147-169.

Thomson, R. C. (2016). California amphibian and reptile species of special concern. Univ of California Press.

U.S. Fish and Wildlife Service. 2022. *National Wetlands Inventory*. Available: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed September 2022.

U. S. Geological Survey. 2006a. Western pond turtle (Emys marmorata) visual survey protocol for the south coast ecoregion. U. S. Geological Survey protocol. San Diego, CA. 56 pp.

Van Wagtendonk, J. W. (Ed.). (2018). *Fire in California's ecosystems*. Univ of California Press.

Welsh, Hartwell H. and Amy J. Lind, 1996. Habitat correlates of the Southern Torrent Salamander, in Northwestern California. Journal of Herpetology. 30:385-398.

Zald, H. S., Callahan, C. C., Hurteau, M. D., Goodwin, M. J., & North, M. P. (2022). Tree growth responses to extreme drought after mechanical thinning and prescribed fire in a Sierra Nevada mixed-conifer forest, USA. *Forest Ecology and Management*, *510*, 120107.