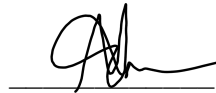


Cooley Ranch CalVTP # 2022-29
Project Specific Analysis and Addendum to the CalVTP PEIR

Prepared for:

Northern Sonoma County Fire Protection District
20975 Geyserville Ave.
Geyserville, CA 95441

Prepared by:



Jacob Harrower | RPF 3070
Frontier Resource Management



Contributors:

Marshall Turbeville | Fire Chief; Northern Sonoma County Fire Protection District

Bob Cooley | Ranch Manager

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Common Terms and Acronyms Key:

RPF: Registered Professional Forester.

SPR: Standard Project Requirement

PSA: Project Specific Analysis

PEIR: Program Environmental Impact Report

MMRP: Mitigation monitoring and reporting program

MM: Mitigation measures

CalVTP: California Vegetation Treatment Program

CNDDB: California Natural Diversity Database

CNPS: California Native Plant Society

DBH: Diameter at Breast Height

SRA: State Responsibility Area

WLPZ: Watercourse and Lake Protection Zone

TPA: Trees per acre

PCA: Pest Control Advisor

QAL: Qualified Applicator's License

LWD: Large Woody Debris. Existing downed logs which are highly valuable to wildlife.

Dead and Down: Vegetation that is dead and either in contact with the forest floor or standing.

% Canopy Cover: An average percentage of the sky that is covered by overstory or understory canopy as measured with a densitometer utilizing random plot survey methods.

% Live Crown = (Height of live crown / Total tree height) X 100

Lop and Scatter: Vegetation treatment technique where removed branches, shrubs, and trees are cut into manageable pieces and scattered around a treatment area to slowly break down into the ground over time.

INTRODUCTION

PROJECT OVERVIEW

The California Vegetation Treatment Program (CalVTP) directs implementation of vegetation treatments to reduce wildfire risk, while protecting natural resources and public property from wildfire. The Program Environmental Impact Report (PEIR) for the CalVTP was developed in 2019, under the direction of CEQA lead agency, California Board of Forestry and Fire Protection, in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines.

This PSA is prepared to assess treatment areas planned for the approximately 18,753 acre Cooley Ranch, located in Sonoma and Mendocino Counties.

CEQA LEAD AGENCY AND PROPOSED PROJECT

Northern Sonoma County Fire Protection District will function as the lead agency and project proponent for this CalVTP. The project proponent is solely responsible for the prescription of all vegetation treatments proposed, including the implementation, and monitoring of the vegetation treatments, mitigation measures, and SPRs shown in attachment A. The Lead Agency is responsible for making the final determination regarding this proposed projects CEQA compliance and the necessity or lack thereof for further environmental review.

The following PSA, and corresponding attachments, were prepared by Frontier Resource Management. The treatment activities and treatment types were selected by the project proponent for inclusion in this PSA. Frontier Resource Management does not make the determination that the proposed treatment activities are within the scope of the PEIR, but rather provides the evaluation, surveys, and documentation required by CEQA for consideration by the lead agency. Northern Sonoma County Fire Protection District is responsible for determining if the proposed treatments are within the scope of the PEIR, based on the information contained in this PSA and supporting attachments.

The treatment types being proposed are fuel breaks and ecological restoration. The treatment activities will include manual treatment, mechanical treatment, herbicide treatment, prescribed burning, and prescribed herbivory. Ongoing maintenance will involve the same treatment types as the initial treatments.

STATEMENT OF PURPOSE

This document serves as the PSA to determine if the project as proposed is within the scope of the CalVTP PEIR. Approximately 30% of the ranch falls outside of the “treatable landscape” or geographic extent of the PEIR. This area can be classified as an oak woodland and/or oak savannah forest type. These ecosystems, which function as transition zones between grasslands and mixed conifer forests, were mostly dis-included from the geographic extent, across the entire state. The CalVTP Treatable Landscape boundary was digitally developed at a large scale, which did not allow for high resolution mapping. As a result, areas were dis-included, even though the vegetation is very similar to the surrounding vegetation within the treatable landscapes. These areas need treatment, as they provide fuel ignition and transfer fire to the “treatable landscapes”. The invasion of grasses into oak woodlands and oak savannahs has moved these areas into extreme fire danger, furthering the necessity for preventative treatments.

Due to the similarities of the areas outside of the treatable landscape, the environmental analysis in the PEIR is applicable. An addendum to an EIR is appropriate when 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 a substantially more severe significant environmental impact, consistent with CEQA section 21166 and CEQA Guidelines Sections 15162, 15163, 15164, and 15168. In this case there are no revisions, only a change to the geographic extent represented by the PEIR.

This document serves as both the PSA and the Addendum to the CalVTP PEIR to provide CEQA compliance for the proposed vegetation treatments. The MMRP, which identifies the SPRs and MMs applicable to the project is located in attachment A. Attachment B contains the biological assessment, including a botany report and soils analysis. Attachment C includes all project maps. Attachment D contains the confidential archaeology report prepared by ALTA Archaeological consulting and has been removed to preserve confidentiality.

VEGETATION TREATMENT PLAN

CURRENT FOREST CONDITIONS

The 18,753-acre Cooley Ranch is situated roughly 6 air miles east of the city of Cloverdale, in both Sonoma and Mendocino Counties. It spans from Thompson Ridge and Rockpile Rd in the south, to Big Foot Canyon and Dry Creek in the north. The elevation ranges between 500 – 2,240 ft above sea level and can be delineated into 4 distinct forest types. Oak woodlands, Douglas-fir, Ponderosa Pine, and Coast Redwood stands. There are various areas of chaparral intermixed between the different stand types.

Most of the project area falls under the oak woodlands forest type. Over the years aerial fuel loads have increased with greater conifer, bay, and madrone encroachment. Understory growth and increasing tree mortality have created extremely high levels of surface and ladder fuels. The resulting TPA and fuel loading is far greater than what these ecosystems are adapted to endure. Many of the stands in the project area exhibit regions of poor forest health, due to overcrowded conditions, a high degree of dead and down, and lack of available nutrients.

Oak woodlands:

The oak woodlands are comprised of Valley oak (*Quercus lobata*), Interior live oak (*Quercus wislizeni*), Coast live oak (*Quercus agrifolia*), California black oak (*Quercus kelloggii*), Oregon white oak (*Quercus garryana*), Pacific madrone (*Arbutus menziesii*), Big-leaf maple (*Acer macrophyllum*) and various understory species. These stands vary in tree density, with an estimated stocking ranging from 20 TPA in the oak savanna types to over 300 TPA within the denser oak woodland areas. The overall health of these trees is good, with few signs of insect and disease outbreaks, although the fuel loading is extreme in the denser stands. Mistletoe is spread throughout these oak woodlands in varying degrees, as is to be expected.

Conifer encroachment is moderate throughout the project area, due to the active grazing which occurs. There are some stands on the outskirts of these ecotypes where Douglas-fir has successfully colonized, albeit early in the process. If fir trees are removed soon, there will be minimal heritage oaks lost.

Douglas-fir Stands:

The Douglas-fir dominant ecotypes are comprised of Douglas-fir (*Psuedotsuga menziesii*), Pacific madrone, California bay laurel (*Umbellularia californica*), Interior live oak, California black oak, Oregon white oak, and various understory species. These stands are generally unhealthy with evidence of reduced vigor from insect/disease infestation brought on by competition for light, water, and nutrients. Conditions are very overstocked in most of these stands, with between 400-600 TPA in some areas.

The older/larger Douglas-fir trees are on the decline (as is expected with older fir trees this far south and inland). There are multiple stands less than 20 acres, where forest pests have completely overtaken the overstory firs, resulting in near 100% mortality. These stands are regenerating well, and should be thinned to reduce the risk of a stand replacement wildfire and speed up the recovery process.

Ponderosa Pine Stands:

The Ponderosa pine stands make up a minor component of the property and are located in the south eastern portion of the Cooley Ranch. They are overstocked with Ponderosa pine (*Pinus ponderosa*), California black oak, and Pacific madrone, with approximately 300-400 TPA and an average DBH of 12-20". These trees appear healthy with few signs of insect and disease issues. It appears the pine trees were planted, but their occupancy could have occurred naturally. The stands are reaching the stem exclusion phase of development, where trees are beginning to be suppressed, and will eventually start to die. Thinning now will increase the health of the retained trees while removing the trees which will soon be dead standing anyways.

Coast Redwood Stands:

There are two Coast redwood stands on approximately 60 acres, mostly situated along perennial watercourses within the ranch. The trees are mostly healthy, but there are some areas where competition is high, causing stunted growth along with reduced crown size. These stands are generally comprised of a single dominant age class, but there are some old growth trees scattered throughout. Coast redwood (*Sequoia sempervirens*), Douglas-fir, Pacific madrone, and Bay laurel encompass this forest type. With an average 300-400 TPA, the stands are

overstocked. Most of the trees are over 20" DBH, meaning treatment within these stands should be achieved through selective timber harvesting.

There are many clumps of redwood contending for dominance. These clumps, also known as "fairy rings", which naturally grow around the stump of a large redwood tree when it falls or is cut down - should be thinned to improve overall ecosystem health. Stand volume can be drastically increased by thinning clumps of 5-10 trees to 1-3 trees, in the process called "releasing". This CalVTP PSA does not permit the landowner or project proponent to harvest timber. A Timber Harvest Plan would need to be prepared by an RPF and approved by CALFIRE, prior to initiating a timber harvest.

WILDLAND FUEL LOAD ASSESSMENT

The purpose of the Wildland Fuel Load Assessment (WFLA) is to provide a qualitative analysis of the fuel characteristics, to develop hazard categories. These hazard categories will help property managers prioritize treatments throughout the ranch. To determine appropriate hazard categories, the vegetation types were stratified by first reviewing orthophotos. Grass lands and low-density oak woodlands were grouped into one category, and oak woodland/mixed conifer in the other. Next, a qualitative field assessment of the fuel load characteristics was undertaken for each vegetation type. Fuel depth/composition, tree density, tree health, vegetation types, and fuel continuity were reviewed for each area. The map entitled "Wildland Fuel Load Assessment", in attachment C, shows the resulting fuel load types categorized as light, moderate, and critical. The following describes the range of fuel load conditions and characteristics represented by each category.

Light:

The "Light" fuel load category represents the grasslands and oak woodlands with < 200 TPA and very few 1hr – 100hr fuels. There may be some 1,000hr fuels, but they are mostly in full contact with ground and not stacked or cast in a continuous nature. There is very little duff or dead and down accumulation in these areas, with an average fuel depth less than 2". Ladder fuels are either non-existent, or present less than 20% of the area. The result is virtually no vertical continuity throughout the unit. Chaparral which has been burned within the last 5 years also falls into this category. The light category is an excellent natural fuel break.

Moderate:

The "Moderate" fuel load category represents the oak woodlands and the mixed conifer forest types with >200 TPA. The dead and down fuel type is mainly leaf litter and duff with an average 3" depth. There may be slightly more 1hr -1,000hr fuels than the light category, however they still aren't stacked in a continuous nature. The result is a low to moderate level of vertical fuel continuity. Most of the fuel load within these units is within the canopy, as overstory trees are becoming overstocked. Consequently, the ignition hazard is mainly from the adjacent units which have a critical fuel load and can pass a canopy fire to the moderate units.

Critical:

The "Critical" fuel load category is represented by the mixed conifer forests with >200 TPA. The dead and down fuel type is comprised mainly of 1-1,000 hr fuels with an average fuel depth up to a foot above the bare soil. The stands in this category have a high degree of vertical fuel continuity due to the overwhelming amount of ladder fuels. The overall average tree diameter in these units is much lower than the moderate and light, also adding to the hazard potential. Another potential characteristic of the critical fuel type is the presence of insect/disease infestations, or otherwise dying trees. When this was observed, the area was noted as having a critical fuel load level, even if the other characteristics were underwhelming. Chaparral, which hasn't been burned in the last 10 years was also mapped as critical.

TREATMENT GOALS AND SPECIFICATIONS

The Cooley Ranch CalVTP is proposed by the project proponent to improve forest health, increase fire resilience, and reduce the risk of wildfire throughout the 18,753 acre ranch. The following goals and specifications describe the target structure of the different forest types. The tree density specifications pertain mostly to the ecological restoration treatment types. Fuels breaks and WUI treatments will generally remove more understory vegetation and retain less TPA. The long-term objectives for these forests are:

- Increase tree spacing
- Reduce fuel loading and insect/disease infestation
- Improve wildlife habitat and continuity
- Improve tree health
- Increase forest fire and drought resilience
- Reduce and control invasive non-native species
- Create a heterogeneous forest structure
- Increase species diversity

Treatment Specifications for all Forest Types:

- The degree of treatment to understory shrubs will vary depending on the treatment types below.
- Select trees for retention that are free from insect and disease infestation and show no signs of tree bole instability.
- In young stands where most trees are < 12” DBH, cut/retention trees will be selected by an RPF (or RPF designee) to ensure a healthy future stand. An optimum tree spacing shall be determined based on site-quality, tree species, and stand age.
- Fire damaged trees showing signs of reduced vigor, insect/disease infestation, and/or poor crown health shall be targeted for removal.
- Retention trees will be pruned to a height of 8-12 feet, but the live crown shall not be reduced below 50%.
- Limit “high stumps”. Cut trees to 6” above the ground.
- When dispersing chips throughout the treatment area, prevent the piling of chips greater than 8” above the ground where feasible.
- Do not allow chips to accumulate at the base of retained trees; make sure there is separation between the tree bole and the chips.
- Constructed burn piles should be less than or equal to 20’ diameter and should not be placed close enough to damage retained trees. The acceptable distance of a pile to a tree will depend on: The piles’ overall size, the topography, the weather at time of ignition, the retained tree’s structural integrity, and the fuel moisture.
- Treat existing dead and down throughout all treatment types, but retain LWD > 16” diameter.
- Trees determined by an RPF or Arborist to die within 5 years, may be removed regardless of DBH, species, or age.
- Snags should be retained where feasible within ecological restoration treatment types. Removal of snags will occur within shaded fuel breaks. Snags shall be inspected by an RPF or Biologist, for the presence of sensitive species prior to removal.

Treatment Specifications - Douglas-fir or Ponderosa Pine stands: Target stocking post treatment = 150-200 TPA

- Treatments will focus on thinning trees with a < 10” DBH. Not all trees in this size class should be removed. Understory trees are a vital part of forest regeneration. Target spacing for understory trees is 20-30 ft within ecological restoration treatments. Shaded fuel breaks may achieve a much greater tree spacing.
- Retain healthy trees with a > 10” DBH unless posing a safety hazard.
- Target a 15-20 foot average spacing between all retained trees, regardless of size class. Favor retaining Douglas-fir trees.

Treatment Specifications - Oak Woodlands: *Target stocking post treatment = 20 TPA in Oak Savannah type up to 100 TPA in the Oak Woodland type.*

- Treatments will focus on thinning trees with a < 6” DBH. Not all trees in this size class should be removed. Understory trees are a vital part of forest regeneration. Retain as many true oak species in the understory as possible. Target removing encroaching Douglas-fir, bay, pacific madrone, and brush species.
- Retain healthy trees with a > 6” DBH unless posing a safety hazard.
- Target a 20-50 foot average spacing (dependent on oak ecosystem type) between retained trees, regardless of size class. Favor retaining true oaks.
- Optimum fire return interval would be 7-13 years.
- Ensure low fire intensity.
- Prevent the spread of plant pathogens. See SPR BIO-6 for equipment sanitation and other BMPs.

Treatment Specifications – Coast Redwood Stands: *Target stocking post treatment = 200-250 TPA*

- Treatments will focus on thinning trees with a < 10” DBH. Not all trees in this size class should be removed. Understory trees are a vital part of forest regeneration. Target spacing for understory trees is 15-25 ft within ecological restoration treatments. Shaded fuel breaks may achieve a much greater tree spacing.
- Retain healthy trees with a > 10” DBH unless posing a safety hazard.
- Target a 10-15 foot average spacing between all retained trees, regardless of size class. Favor retaining Coast redwood trees.
- Selective timber harvesting would increase forest growth and health throughout these stands. This CalVTP PSA does not permit the landowner or project proponent to harvest timber. A Timber Harvest Plan would need to be prepared by an RPF and approved by CALFIRE, prior to timber harvesting.

Treatment Specifications – Chaparral ecosystems:

- Ecological restoration treatments will not be implemented in vegetation types that are within their natural fire return interval.
- Target fire return interval for chaparral ecosystems will be 15-30 years.
- For ecological restoration treatments, a minimum of 35 percent relative cover of existing shrubs and associated native vegetation will be retained at existing densities in patches distributed in a mosaic pattern within the treated area or the shrub canopy will be thinned by no more than 20 percent from baseline density (i.e., if baseline shrub canopy density is 60 percent, post treatment shrub canopy density will be no less than 40 percent).

TREATMENT TYPES

The following treatment types are proposed: Fuel breaks and ecological restoration (see Operations Maps in attachment C). The treatment activities will include mechanical, manual, herbicide application, prescribed burning (Broadcast and Pile), and prescribed herbivory.

Fuel Breaks:

Shaded Fuel Breaks will be created 100 feet on both sides of trails, roads, structures, and ridgelines. These treatments will provide staging areas to support firefighting and will provide control lines during prescribed fire activity. Most of the understory vegetation will be removed, while retaining a high degree of canopy cover to slow the brush regeneration. Up to 75% of existing ground fuels, shrubs, and trees < 6” DBH will be removed, chipped, or burned. If the fuel break is comprised of a young stand predominantly under 12” DBH, trees will be retained as described above in the treatment specifications. Once cut, all vegetation will be chipped, burned (piled or broadcast), or lopped and scattered.

Herbicides may be used within these areas where necessary to prevent invasive and resprouting species. This will ensure the fuel break is maintained. A PCA shall be consulted prior to any herbicide application. *All herbicide use shall comply with SPR HAZ-5 , HAZ-6, HAZ-7, HAZ-8, and HAZ-9 as shown in attachment A.* Snags may be removed unless, it has been determined to be critical habitat for a listed species. If so, CDFW will be consulted prior to snag removal.

Ecological Restoration:

Ecological restoration treatments are designed to restore an ecosystem to a historical state. These conditions vary depending on the degree and extent of disturbance the ecosystem is adapted to. Due to fire-exclusion from California's fire-adapted forests over the last 2 centuries, the forest has become overgrown with small unhealthy trees. Restoration activities will focus on reducing densities of trees, shrubs, and invasive species. The treatments will mimic fire by removing non-fire resilient species and ladder fuels. By removing vegetation in this way, trees and grassland will be allowed to re-establish in areas that have been overstocked.

Prescribed herbivory, manual, mechanical, and prescribed burning treatments will be utilized throughout the project area. Treatments in these areas will be focused on removing enough ground and ladder fuels to allow broadcast burning without threatening the larger trees and overall canopy health. The main goal is to return the stands to a historical stocking level, allowing burning as a maintenance practice. Treatments will vary by forest type. See treatment specifications above. Snags and LWD will be retained within this treatment area, unless they pose a threat to public safety.

TREATMENT ACTIVITIES

- ❖ *For all treatment activities: The project proponent is responsible for prescribing and implementing these treatment activities including the mitigations and monitoring described in this PSA and Attachment A. Containment of any fire used for vegetation treatment is the responsibility of the project proponent.*

Mechanical Treatments

The Cooley Ranch property is generally very steep, resulting in most areas being inaccessible by heavy equipment. Approximately 545 acres are proposed to be treated with heavy equipment. See Attachment C maps. During field reconnaissance, the RPF determined which areas would be best suited for mechanical treatment based on environmental conditions. Slope, unstable areas, sensitive species habitat, WLPZs, and vegetation density were among the factors considered during the assessment. Mechanical treatments will occur within these mapped areas as well as along existing roads; vegetation may be mechanically treated, outside of mapped areas, if it can be reached with the machine's arm, while the tracks or wheels are within the road surface.

During mechanical treatments 1-2 pieces of heavy equipment (both tracked and rubber tired) shall be used to cut, uproot, crush/compact, or chop trees and brush. Mostly this will entail utilizing a mastication head to roughly chip target vegetation and disperse onsite, although, tilling, roller chopping, chaining, and skidding may occur as well. The types of equipment used to complete these treatments will include excavators, skid steers, feller bunchers, tracked chippers, etc... Mechanical treatments remain the most effective way to achieve the project goals and will thus be utilized where possible.

Manual Treatments

Manual treatments will be utilized on approximately 5,497 acres. These treatments may involve between 5-20 laborers utilizing chainsaws, pole saws, tracked, and tow behind chippers. Cut material will be either lopped n scattered, chipped, or piled and burned in accordance with the treatment specifications above. Lop and scatter shall not occur within 150 ft of all structures.

Prescribed Burning Treatments

Prescribed burning is proposed on all 18,753 acres. Pile burning shall be utilized where feasible (i.e. where rollout can be contained) within the manual treatment areas. This will most often occur on slopes less than 50% but if need be, can be implemented in steeper country with the construction of a berm on the downhill side. The berm should be high enough to hold multiple logs, and its height will vary depending on the size of logs within the pile. See treatment specifications above for more information regarding pile construction.

Broadcast burning may be used throughout the treatment area to reduce the surface and ladder fuel continuity. The intensity of this treatment will vary depending on many factors. Slope, weather, and fuel load will dictate the

outcome of the burn and will be utilized to determine the burn window. No broadcast burning shall occur until a burn plan is developed (see Attachment A; SPR AQ-2 and SPR AQ-3). In general, prescribed burning during the initial treatments shall be of higher intensity, as the fuel loads are currently very high throughout the treatment area. Mechanical and maintenance treatments shall be aimed at reducing fuels loads to inhibit lower intensity burning, particularly around high value trees.

A loader, excavator, dozer, or skidder may be utilized to control fire lines where hand lines are not sufficient and where mechanical treatment activities are permitted. The burn plan will outline the equipment utilized in further detail.

Herbicide Treatments

Herbicides may be applied throughout the entirety of the proposed project, except within the unstable area STZ's or biological STZs. See Attachment C, maps. Prior to herbicide application, a PCA will prepare a recommendation for the treatment areas. Application of an herbicide, immediately following initial treatments will reduce the extreme regrowth of the understory (particularly within the fuel break treatments). Without chemical control, brush and other understory species will regrow rapidly and pose a secondary threat to fuel break and WUI infrastructure.

All herbicide use shall comply with SPR HAZ-5 , HAZ-6, HAZ-7, HAZ-8, and HAZ-9 as shown in attachment A.

Prescribed Herbivory

The oak woodland/grassland areas have been actively grazed by cattle for generations at the Cooley Ranch. This form of grazing will likely continue and is not included in this CalVTP analysis.

Targeted grazing of brush and understory may occur throughout the entirety of the proposed project, except within the unstable area STZ's or biological STZs. See Attachment C, maps. All tree and shrub grazing shall follow the limitations defined in Attachment A SPRs. This treatment activity may entail between 300-500 goats/sheep. Grazing is highly effective at reducing ladder fuels and may be utilized surrounding fuel breaks.

CalVTP PROJECT INFORMATION

1. **Project Title:** Cooley Ranch CalVTP
2. **Project Proponent Name and Address:**
Northern Sonoma County Fire Protection District
PO Box 217
Geyserville, CA 95441
3. **Contact Person Information and Phone Number:** Jacob Harrower, (707) 391-9883
4. **Project Location:** West of Cloverdale, CA, within Sonoma and Mendocino Counties.

The project is proposed throughout the entirety of Cooley Ranch, which is within the following Pacific Land Survey description. Sections 25, 26, 27, 28, 33, 34, 35, & 36 T12N, R12W; Sections 30 & 31 T12N, R11W; Sections 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, & 29 T11N R12W ; Sections 6, 7, 8, 16, 17, 18, 19, 20, & 21 T11N R11W MDBM. Big Foot Mountain and Cloverdale USGS 7.5 Minute Quadrangles.

5. **Total Area to be Treated (acres)** 18,753 Acres.
6. **Description of Project:**

- a. **Initial Treatment**

❖ *See Vegetation Treatment Plan above.*

Treatment Types

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

Treatment Activities

- Prescribed Burning (Broadcast), 18,753 acres
- Prescribed Burning (Pile Burning) 5,497 acres
- Mechanical Treatment, 545 acres
- Manual Treatment, 5,497 acres
- Prescribed Herbivory, 18,753 acres
- Herbicide Application, 18,753 acres

Note: Multiple treatment activities may be applied in the same area

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

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

b. Treatment Maintenance

- ❖ *Estimated treatment maintenance is based on each initial treatment completed. It is not anticipated that the initial treatment shall be completed on the entire project within 5 years of project approval.*
- ❖ *Treatment maintenance timing and scope will vary depending on the level of understory regrowth in response to initial treatments, which is highly dependent on-site quality, water availability, soils, aspect, initial treatment intensity, use of herbicides, etc...*

Fuel Break Maintenance:

Treatments within the Fuel Break areas will reoccur every 1-10 years depending on the effectiveness of the initial treatments and the level of vegetation regeneration. It is anticipated that vegetation will regrow quickly within the fuel breaks due to the greater disturbance associated with these types of treatments. A high canopy closure along with herbicide use will slow understory re-initiation. If herbicides aren't utilized, it is highly likely the fuel breaks will require retreatment after roughly 3 years. Alternatively, if herbicides are applied to target vegetation within the fuel break (i.e. vigorously resprouting and/or invasive species) maintenance treatments may not be necessary for 10 years.

Ecological Restoration Maintenance:

The goal within these treatment types is to maintain a high overall canopy closure, resulting in slow regeneration of the understory. It is estimated that treatment maintenance within these areas shall occur every 10-20 years, focusing mainly on treating dead and down. Again, the maintenance period will depend on the vegetation response to treatment.

- ❖ ***For maintenance of all treatment types:** An assessment will be made by the project proponent which will determine when maintenance treatments shall occur. This will be based on regenerated vegetation and fuel loading assessments. The project proponent is responsible for maintaining the initial treatment areas.*

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

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

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

- Prescribed Burning (Broadcast), 18,753 acres
- Prescribed Burning (Pile Burning) 5,497 acres
- Mechanical Treatment, 545 acres
- Manual Treatment, 5,497 acres
- Prescribed Herbivory, 18,753 acres
- Herbicide Application, 18,753 acres

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

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

Use of the PSA for Treatment Maintenance

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

In addition to verifying that the PSA continues to provide relevant CEQA coverage for treatment maintenance, the project proponent will update the PSA at the time a maintenance treatment is needed when more than 10 years have passed since the approval of the PSA or the latest PSA update. For example, the project proponent may conduct a reconnaissance survey to verify conditions are substantially similar to those anticipated in the PSA. Updated information will be documented.

7. **Regional Setting and Surrounding Land Uses:** The project area is within Sonoma and Mendocino counties near the city of Cloverdale. The property is a privately owned ranch with a conservation easement through Sonoma County Ag and Open Space. The land uses within and adjacent to this property are cattle grazing, hunting, timber harvesting and agricultural production.
8. **Other Public Agencies Whose Approval is Required:** (e.g., permits)
- Smoke management plan will be prepared for NSCAPCD and MCAQMD.
 - A burn permit will be obtained from CALFIRE when required.
 - Pesticide application permit through the Sonoma County CAL Ag permit.

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

9. **Native American Consultation.** *For treatment projects that are within the scope of the CalVTP PEIR, AB 52 consultation for AB 52 compliance has been completed. The Board of Forestry and Fire Protection conducted consultation pursuant to Public Resources Code section 21080.3.1 during preparation of the PEIR.* Pursuant to CalVTP SPR CUL-2, Native American tribes were contacted on December 2nd by ALTA Archaeological Consulting. Results of these consultations are included in attachment D which is maintained as a confidential document.

DETERMINATION (To be completed by the project proponent)

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

- I find that all of the effects of the proposed project (a) have been covered in the CalVTP PEIR, and (b) all applicable Standard Project Requirements and mitigation measures identified in the CalVTP PEIR will be implemented. The proposed project 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 covered in the CalVTP PEIR. These effects are less than significant without any mitigation beyond what is already required pursuant to the CalVTP PEIR. A **NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project will have effects that were not covered in the CalVTP PEIR or will have effects that are substantially more severe than those covered in the CalVTP PEIR. Although these effects may be significant in the absence of additional mitigation beyond the CalVTP PEIR's measures, revisions to the proposed project or additional mitigation measures have been agreed to by the project proponent that would avoid or reduce the effects so that clearly no significant effects would occur. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project will have significant environmental effects that are (a) new and were not covered in the CalVTP PEIR and/or (b) substantially more severe than those covered in the CalVTP PEIR. Because one or more effects may be significant and cannot be clearly mitigated to less than significant, an **ENVIRONMENTAL IMPACT REPORT** will be prepared.



Signature

6-16-2023

Date

Fred Peterson

Printed Name

Board President

Title

Northern Sonoma County FPD

Agency

PROJECT SPECIFIC ANALYSIS/ADDENDUM

AESTHETICS AND VISUAL RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact AES-1: Result in Short-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from Treatment Activities	LTS	Impact AES-1, pp. 3.2-16 – 3.2-19	No	None	NA	None	NA	NA
Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	No	None	NA	None	NA	NA
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	PS	Impact AES-3, pp. 3.2-25 – 3.2-27	No	NA	None	NA	NA	NA

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

LTS: Less than Significant; SU: Significant and unavoidable. PS: Potentially Significant

New Aesthetic and Visual Resource Impacts: Would the treatment result in other impacts to aesthetics and visual resources that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Discussion

Impact AES-1

The project area is not within view of a public scenic vista or scenic highway.

Impact AES-2

The project area is not within view of a public scenic vista or scenic highway.

Impact AES-3

The project area is not within view of a public scenic vista or scenic highway.

CalVTP Addendum for Change to Geographic Extent

The project proponent has determined that the inclusion of land in the proposed treatment area that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the viewshed and treatment impacts are consistent with those examined in the PEIR and would therefore not create any new significant impacts.

PD-3.2: AGRICULTURE AND FORESTRY RESOURCES

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

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

LTS: Less than Significant; SU: Significant and unavoidable. PS: Potentially Significant

New Agriculture and Forestry Resource Impacts: Would the treatment result in other impacts to agriculture and forestry resources that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Impact AG-1

Initial and maintenance treatments will encourage a healthier forest condition by removing competing vegetation and in some cases scarifying the ground, allowing for desirable tree species to seed in. The project area exists within various forest types. Mixed conifer (Douglas-fir and Coast Redwood), oak woodland, oak savannah, riparian forest land, and grassland. The project will focus on removing trees less than 10" DBH, and brush species, which will not have a significant negative effect on the forest structure. Not all trees in this size class will be removed, thus preventing a future conversion, due to lack of regeneration in the understory.

The treatments proposed will protect this forest from a stand replacing wildfire, which would have the potential to convert the forest land into a brush dominated pioneer species structure. This would have the potential to initiate a cycle of high intensity wildfires which could create an adaptation towards chapparral species.

After assessing the proposed treatments and their effect on the potential for converting forest land within the project area, the project proponent has determined that the treatments will in fact protect forest resources from conversion.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside the CalVTP treatable landscape constitutes a change to the geographic extent presented in the PEIR. However, the composition of forestland as defined in public resources code section 12220(g) is

essentially the same within and outside the treatable landscapes of this specific project area. The forest types which fall outside of the treatable landscapes are comprised mostly of oak woodlands with small grasslands intermixed. The reason for their dis-inclusion is most likely due to low resolution mapping performed on a large scale. This mapping approach failed to include all forestland needing treatment. There is no change in the impact to forest resources within these areas.

PD-3.3: AIR QUALITY

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

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

LTS: Less than Significant; PSU: Potentially Significant and unavoidable. PS: Potentially Significant

New Air Quality Impacts: Would the treatment result in other impacts to air quality that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Impact AQ-1

Emissions of criteria air pollutants related to the proposed treatment are within the scope of the PEIR because the associated equipment and duration of use are consistent with those analyzed in the PEIR. The applicable SPRs will be implemented during treatments. AQ-5 would not apply to this project because there are no known asbestos areas within the treatment units.

The overall impact was determined to be Potentially significant and un-avoidable by the PEIR. Mitigation measure AQ-1 will be applied where feasible and will, along with the SPRs, reduce the impact. The following mitigation measures listed under AQ-1 will not be applied due to lack in technology and infeasibility at the local level:

- Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria:
 - Be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables;
The use of this type of fuel is not feasible due to economic constraints. Diesel fuel from non-petroleum sources (i.e. Biofuel) is far less efficient than diesel fuel. This would result in a significant decrease in the number of acres treated per day by mechanical equipment. This would fail to accomplish the increased pace and scale targets set by the State of California, to decrease critical fuels levels.
Furthermore, research is lacking in the benefits of biofuel over diesel in regard to work/output performed (Wp) vs. total emissions (Te) created. While there are certainly less emissions created by the engine via a set amount of time when using biofuel, the correlation between work performed and total emissions created has not been fully analyzed. Since the biofuel powered engine requires a longer time to complete the project, there is a potential for the total emissions created to be greater than the diesel powered engine.
 - Electric and gasoline-powered equipment will be substituted for diesel-powered equipment.
 - *Currently there are no alternatives available which offer the functional ability to handle the workload required for the treatment activities. Diesel engines are the most efficient and widely available option for completing fuels treatments, particularly with regards to mechanical treatment activities. Furthermore, gasoline engines lack the torque required to complete treatments on steep slopes under extreme loads. This is where diesel engines have an advantage, allowing treatment on areas which would otherwise be untreatable. Diesel powered equipment also has a greater workload ability, allowing work to be completed faster. This has both an economic impact to the project as well as a reduced duration of air quality offense.*
Lithium-ion batteries lack the range and charging speed to allow "theoretical" electric powered heavy equipment to complete the job within any sort of real-world efficiency. Because the jobs are so far from any charging station, it would be necessary to have a mobile charging source. That charging source would likely require a gas-powered generator to work, thus defeating the purpose of the mitigation measure.
Ultimately, the technology is lacking, both locally and elsewhere, to include this mitigation measure.

Impact AQ-2

Use of mechanical equipment during initial and maintenance treatments could expose people to diesel particulate matter emissions. This potential was examined within the PEIR. These types of emissions for the treatment activities

are within the scope of the PEIR because they are the same, including types of equipment and potential duration of treatment.

Impact AQ-3

NA: No naturally occurring asbestos is mapped in the treatment area.

Impact AQ-4

Prescribed burning during initial and maintenance treatments could expose people to toxic air contaminants, which was examined in the PEIR. The duration and parameters of prescribed burns are the same as addressed in the PEIR, therefore the potential exposures are within the scope of the PEIR. All feasible SPRs for controlling smoke emissions are included in this PSA as well as the PEIR and no further mitigations are feasible. The impacts remain significant and unavoidable as identified in the PEIR. Nevertheless, these impacts are significantly less than those created during large scale wildfires. The goal of these burns being to prevent devastating large-scale wildfires, and thus large scale impacts to air quality.

Impact AQ-5

The use of diesel equipment during operations could expose people to objectionable odors. This potential was examined in the PEIR. The potential impact from this project is within the scope because the duration, equipment used, and treatment activities are consistent with those analyzed in the PEIR.

Impact AQ-6

Prescribed burning during initial and maintenance treatments could expose people to objectionable odors. This potential was examined in the PEIR. The potential impact from this project is within the scope because the duration, equipment used, and treatment activities are consistent with those analyzed in the PEIR.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscape presented in the PEIR, constitutes a change in the geographic extent presented in the PEIR. The air quality conditions as well as the exposure potential present in these areas are the same as those within the treatable landscape. Consequently, the impact will be the same and is within the scope of this PEIR for all of the above listed impacts.

PD-3.4: ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

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

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

LTS: Less than Significant; LTSM: Less than significant with mitigation; PSU: Potentially Significant and unavoidable; PS: Potentially Significant

New Archaeological, Historical, and Tribal Cultural Resource Impacts: Would the treatment result in other impacts to archaeological, historical, and tribal cultural resources that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

ALTA Archaeological consulting conducted a survey and report to satisfy CEQA requirements regarding historical and prehistorical resources. See Attachment D for this report, which addresses site specific findings and protection measures. The confidential attachments included in that report have been removed.

Impact CUL-1

The proposed treatments have the potential to damage historical resources and this has been assessed in the PEIR. The impact of this project is within the scope of the PEIR because the treatment activities are the same and the impact will be less than significant with the inclusion of the SPRs.

Impact CUL-2

Vegetation treatments include mechanical treatments that could disturb the ground, potentially resulting in damage to unknown archaeological resources. A survey and NWIC records search have been conducted by a professional archaeologist and the results are maintained in a confidential document. The impact of this project was determined to be the same as the PEIR because the treatment activities are the same and the potential resources are the same. As per Mitigation Measure CUL-2, any archaeological resource discovered during treatments will be given 100 ft avoidance, and the site will be reviewed by an archaeologist.

Impact CUL-3

This impact was assessed in the PEIR and with the inclusion of the SPRs listed, the impact will be less than significant. ALTA completed the SPRs and the results are shown in Attachment D, Confidential Archaeological report. Native American groups were notified of the project and requested for information regarding cultural resources. See appendix D for the Archaeologist report.

Impact CUL-4

There is a potential for treatment activities to uncover human remains due to the nature of the treatment activities. 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 intensity of ground disturbance, the equipment used, and the duration of their use is the same as those analyzed in the PEIR.

New Archaeological, Historical, and Tribal Cultural Resource Impacts

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent of the PEIR. However, the potential archaeological resources and the environmental conditions are consistent throughout the treatment area, both inside of the treatable landscapes and outside. Furthermore, the area outside of the treatable landscape was included in the archaeologist review conducted by ALTA. See attachment D for the full archaeology report.

PD-3.5: BIOLOGICAL RESOURCES

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact BIO-1: Substantially Affect Special-Status Plant Species Either Directly or Through Habitat Modifications	PS	Impact BIO-1, pp 3.6-131–3.6.138	Yes	BIO-1, BIO-2, BIO-3, BIO-7, BIO-9, GEO-1, GEO-3, GEO-4, GEO-5, GEO-7, HYD-4	BIO-1b	LTSM	No	Yes
Impact BIO-2: Substantially Affect Special-Status Wildlife Species Either Directly or Through Habitat Modifications	LTS (all wildlife species except bumble bees) S&U (bumble bees)	Impact BIO-2, pp 3.6-138–3.6-184	Yes	BIO-1, BIO-2, BIO-9, BIO-10, GEO-1, HYD-4, GEO-2, GEO-3	BIO-2a,	LTSM	No	Yes
Impact BIO-3: Substantially Affect Riparian Habitat or Other Sensitive Natural Community Through Direct Loss or Degradation that Leads to Loss of Habitat Function	LTS	Impact BIO-3, pp 3.6-186–3.6-191	Yes	BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-9, HYD-4	NA	LTS	No	Yes
Impact BIO-4: Substantially Affect State or Federally Protected Wetlands	LTS	Impact BIO-4, pp 3.6-191–3.6-192	Yes	BIO-1, BIO-2, HYD-4	None	LTS	No	Yes
Impact BIO-5: Interfere Substantially with Wildlife Movement Corridors or Impede Use of Nurseries	LTS	Impact BIO-5, pp 3.6-192–3.6-196	Yes	BIO-1, BIO-2, HYD-4	None	LTS	No	Yes
Impact BIO-6: Substantially Reduce Habitat or Abundance of Common Wildlife	LTS	Impact BIO-6, pp 3.6-197–3.6-198	No	None	NA	NA	NA	Yes
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	No Impact	Impact BIO-7, pp 3.6-198–3.6-199	No	None	NA	NA	NA	NA
Impact BIO-8: Conflict with the Provisions of an Adopted Natural Community	No Impact	Impact BIO-8, pp 3.6-199–3.6-200	No	None	NA	NA	NA	NA

Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Conservation Plan, Habitat Conservation Plan, or Other Approved Habitat Plan								

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

LTS: Less than Significant; LTSM: Less than significant with mitigation; PSU: Potentially Significant and unavoidable; PS: Potentially Significant

New Biological Resources Impacts: Would the treatment result in other impacts to biological resources that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Pursuant to SPR BIO-1, an RPF from Frontier Resource Management conducted a data review of project-specific biological resources and a reconnaissance-level survey of the treatment areas. The main goal of these surveys was to determine the habitat suitability of the project area for the special status species identified during the data review.

Attachment B includes a comprehensive list of all special status species with potential to occur within the project area based on the SPR BIO-1 requirement for a data review of biological resources. It includes the results of a 9 quad search of the California Natural Diversity Database (CNDDB) and the California Native Plant Society Inventory of Rare and Endangered Plants of California. Appendix Bio-3 (Table 13a, Table 13b, and Table 19) of the PEIR (Volume II) was reviewed for special-status plants and wildlife that could occur within the treatment areas. Species Occurrence data was reviewed for 9 quads surrounding the project area and species determined to have a high potential for occurrence, based on project specific habitat, were included in the list of potential species.

Frontier Resource Management conducted reconnaissance-level surveys between 2022 and 2023, to identify and document sensitive resources within the treatment areas. This included aquatic habitat, riparian habitat, and potential sensitive natural communities. During these surveys, habitat suitability determinations were made for the potential special-status plant and wildlife species listed in Attachment B. Below are the final lists of special-status plant and wildlife species with a moderate to high potential of occurring within the treatment area. Some species included in Attachment B were ruled out due to lack of habitat or lack of threat from project activities.

Impact BIO-1

Initial and maintenance treatments could result in direct or indirect adverse effects to the special status plants species with potential to occur within the treatment areas. See Attachment B for the full analysis. Of those species, those listed below have a high potential of occurring within the treatment areas. They will be included in SPR BIO-2 (Required biological resource training for workers) to further mitigate potential impact.

During the data review, there were no CESA or ESA listed species discovered within the project adjacent 9-quads, other than Cedar's manzanita (which is only known to occur on serpentine soils within the cedars area in Sonoma County). Also, this species' only known occurrence is greater than 3 miles from the project area. During the reconnaissance level survey, there was one serpentine area discovered which has a high likelihood of containing listed and non-listed plant species. Adverse effects will be avoided in this area via SPR BIO-1b, through physical avoidance. This serpentine area has been identified on the project maps, as a no treatment area, see Attachment C.

A majority of the project area will be treated under the ecological restoration treatment type. As stated in the PEIR, Biological Resources section 3.6 Pg 133,

“In the ecological restoration treatment type, the objective is to restore degraded, damaged, or destroyed ecosystems and habitats in fire-adapted vegetation types by returning them to their natural fire regime and returning vegetation in Condition Classes 2 and 3 to Condition Class 1¹. This would benefit special-status plants associated with these habitats in the long-term by restoring the historic vegetation composition, structure, and habitat values and function under which these species evolved. Removal of overgrown shrubs and thinning tree canopies could benefit special-status plant populations in the short term by allowing more light to reach them and by removing competition for water, light, and nutrients; however, removal of overstory vegetation could alter microhabitat conditions in a way that is detrimental to special-status plant species in the short term if they are adapted to growing in shade or if the loss of overstory vegetation results in adverse changes in soil moisture, or destabilizes soil resulting in erosion that limits sensitive plant establishment and growth or washes away sensitive plants or their seeds and propagules with eroding soil.”

Prescribed fire will be the treatment method utilized within these areas, which will improve habitat for most of the species on the list. Mechanical treatments will occur along existing roads and within some proposed shaded fuel breaks. The mechanical treatment areas along with the shaded fuels breaks make up the areas where potential impact to sensitive plant population may occur. As a result, the SPR BIO-7 botanical survey will only focus on surveying these areas. The late season survey occurred in August and September of 2022 and early/mid-season surveys were completed in 2023. The results are included in the Botanical report located in Attachment B of this PSA.

The treatment activities and their potential for adverse effects on special-status species is within the scope of the PEIR. With the included mitigation measures and SPRs, the impacts will be reduced to a less than significant level.

¹ Condition class categories are described in Table 2-1 of Chapter 2, “Program Description.”

Special Status Plant Species to include for SPR BIO-2 training

Beaked tracyina (*Tracyina rostrata*)

Status: None

Habitat requirements and description: This species is recorded throughout the inner and north coast ranges of Northern California where it is native and endemic. It commonly grows on grassy slopes in oak woodland and foothill woodland ecosystems. It is an annual flowering Aster resembling a daisy.

Potential for Occurrence: This species was observed and recorded in 1998. Location is described as the confluence of Galloway and Dry creeks, 1.1 air miles NE of White Mountain summit, approximately 8 air miles west of Cloverdale. 20 plants located on grassy slope above confluence of creeks. This individual was not relocated during the botany surveys. See the botany report in Attachment B. Nevertheless, potential species will be protected via the WLPZ protection measures outlined in Attachment A SPRs.

Cobb Mountain lupine (*Lupinus sericatus*)

Status: None

Habitat requirements and description: A perennial flowering plant growing up to half a meter tall. Palmately leaved with 4-7 wide spoon shaped leaflets 3-5 cm long. Contains purple flower clusters. Requires full sun and is found from woodland forests to chaparral.

Potential for Occurrence: There is potential for this species to occur throughout the property, mainly within oak woodlands, forest openings, and along roads.

Rincon Ridge ceanothus (*Ceanothus confuses*)

Status: None

Habitat requirements and description: Shrub in the buckhorn family, endemic to northern California. Its habitat is conifer forests and chaparral. Usually, a mat shrub about 1 meter wide. Leaves are oppositely arranged, oval, toothed, and approximately 2 cm long. Has blue to purple flowers. Due to unique growth pattern and leaves, it can be successfully identified without flowers.

Potential for Occurrence: There is a moderate potential for this species to occur within oak woodland and chaparral areas.

White-flowered rein orchid (*Piperia candida*)

Status: None

Habitat requirements and description: Orchid native to western North America from Alaska to San Francisco Bay Area. Found in coniferous forests, oak woodland forests, and serpentine soils. Grows erect to half a meter and produce a spikelike inflorescence of many honey scented flowers.

Potential for Occurrence: There is a moderate potential for this species to occur within mixed conifer forest and oak woodland forest types.

Impact BIO-2

Treatment activities could result in direct or indirect adverse effects to special status wildlife species with suitable habitat within the treatment area. See Attachment B for an analysis of all species with the potential to occur (CNDDDB 9 quad search results were considered). Those species with moderate to high potential for occurrence, or which occur within 3 miles of the project area, have been included in the list below. With the implementation of the SPR's and mitigation measures listed in the table above, the potential impacts will be less than significant. The following species will be included in SPR BIO-2 training for workers. If one of these species is discovered during work activities, the RPF or qualified biologist will be notified and protection measures will be developed depending on the species, and time of year (i.e. nesting or critical breeding season).

Special-Status Wildlife Species with potential to Occur in the Treatment Area
(For Use During Biological Resource Training for Workers SPR BIO-2)

Birds

Bald Eagle (*Haliaeetus leucocephalus*)

Status: State Endangered

Potential for Occurrence: There is a high potential for occurrence within treatment areas, particularly around the fish bearing watercourses. During reconnaissance surveys a juvenile bald eagle was observed on two separate occasions near a class I watercourse. Each sighting was approximately 0.5 miles from one another. A nest site was not located. The RPF believes this individual to be occupying this particular habitat area. See maps in Attachment C for identified habitat.

Mitigations: Due to the level of treatments proposed, the potential for impact is very low. Nevertheless, the area where these sightings were made will be protected with SPR BIO-10, focused surveys up to 14 days prior to treatment activity. During focused surveys an RPF or qualified biologist will search for bald eagle nests within the area shown as the bald eagle STZ in the Attachment C maps. If a bald eagle nest is located, mitigation measure BIO-2a will be implemented. MM BIO-2a would require a 300-foot seasonal restriction buffer from the nest site. Treatment within this zone would be implemented outside the bald eagle breeding season (February-July).

Prior to treatment within the mapped area represented by the bald eagle STZ, an RPF or biologist will identify any habitat features that are necessary for survival (e.g. habitat necessary for breeding, foraging, shelter, movement) of the bald eagle. Trees with nesting platforms, complex structure, large cavities, snags, or visible raptor nests will be retained. Also, large woody debris and a high degree of ground cover will be retained, to ensure food source protection. Due to the protection measures afforded to class I watercourses, the bald eagles main food source (fish) will not be impacted. With the implementation of these mitigation measures, it is not anticipated there would be a significant negative impact to this species.

Mammals

Sonoma Tree Vole (*Arborimus pomio*)

Status: None

Potential for Occurrence: There is a moderate potential for the Sonoma tree vole to exist within the project area. A visual search of the canopy for stick nests and the forest floor for discarded resin ducts, which accumulate below vole nests was conducted. Resin ducts or nests were not observed during reconnaissance surveys.

Mitigations: This species will be included in the SPR BIO-2 worker training. If detected, nest trees and screen trees will be retained.

North American Porcupine (*Erethizon dorsatum*)

Status: None

Potential for Occurrence: There is a moderate potential for this species to occur within the treatment units. No individuals were observed during field reconnaissance. They are commonly found in coniferous and mixed forested areas, but have adapted to harsh environments such as shrublands, tundra, and deserts. They make their dens in hollow trees, decaying logs, and caves in rocky areas.

Mitigations: Retain large downed hollow logs and trees with large basal hollows. Retain extra brush and ladder fuels around identified potential habitat elements.

Amphibians and Reptiles

Western Pond Turtle (*Emys marmorata*)

Status: None

Potential for Occurrence: There is a high potential for occurrence along Dry Creek and the many ponds within the property. The RPF noted individuals basking on logs along Dry Creek during the field reconnaissance. The pond turtle is associated with permanent ponds, lakes, streams, or permanent pools along intermittent streams in a wide variety of habitats. It requires basking sites in the aquatic environment, grassy openings for nest sites, and nests are typically within 100 meters of a water source, although nests up to 500 meters have been recorded.

Mitigation: SPR HYD-4 requires the establishment of a WLPZ around watercourses and ponds. This will ensure protection of individuals and critical habitat from damaging effects of treatments. Nest sites near the project area have the potential to be impacted if located outside of the WLPZ. SPR BIO-2 will require training for workers to identify and avoid nesting sites during treatment.

California Giant Salamander (*Dicamptodon ensatus*)

Status: SSC

Potential for Occurrence: There is a moderate potential for this species to exist within the project area near cold permanent and semi-permanent streams and seepages. No individuals were observed during field reconnaissance.

Mitigation: SPR HYD-4 requires the establishment of a WLPZ around watercourses and ponds. This will ensure protection of individuals and critical habitat from potentially damaging effects of treatments. SPR BIO-2 will require training for workers to identify and avoid this species during treatment.

Foothill Yellow-Legged Frog (*Rana boylei*)

Status: SSC; CDFW determined this species not to be special status within the coastal range.

Potential for Occurrence: The foothill yellow legged frog is known to exist along Dry Creek within the project area. In 2018 egg masses were located along Dry Creek at the southern boundary of the project area. During field reconnaissance, this species was identified along a class I tributary to Dry Creek. There is a high potential for this species and habitat to exist along other class I and class II watercourses.

Mitigation: SPR HYD-4 requires the establishment of a WLPZ around watercourses and ponds. This will ensure protection of individuals and critical habitat from potentially damaging effects of treatments. Also, SPRs GEO-1, GEO-2, and GEO-3 will prevent ground disturbance during periods of soil saturation, when this species may wander outside the WLPZ. SPR BIO-2 will require training for workers to identify and avoid this species during treatment.

Red-Bellied Newt (*Taricha rivularis*)

Status: SSC

Potential for Occurrence: There is a moderate potential for individuals to occur within the treatment areas near ponds and class II or greater watercourses. No individuals were encountered during field reconnaissance.

Mitigation: The watercourse protection measures, particularly SPR HYD-4 will ensure protection of individuals and critical habitat from damaging effects of treatments. Also, SPRs GEO-1, GEO-2, and GEO-3 will prevent ground disturbance during periods of soil saturation. This will protect this species during its breeding period, immediately following heavy winter rain events. SPR BIO-2 will require training for workers to identify and protect this species.

Conclusion

The potential for treatment activities to result in adverse effects on special status species was examined in the PEIR. The impact is within the scope of the PEIR because the treatment activities and intensity are consistent with those analyzed in the PEIR. See attachment B for the full analysis of potential listed and non-listed species resulting from SPR BIO-1. With the included SPRs and mitigation measures listed above, the impact sensitive species will be less than significant.

Impact BIO-3

There is a potential for the treatment activities to impact designated sensitive natural communities. Oak woodlands and chaparral both have the potential to be impacted by operations and this was analyzed in the PEIR. With the inclusion of the SPRs listed above this impact will be less than significant. The oak woodland ecosystems are not at significant risk due to vegetation removal, because the size class of trees proposed for treatment are generally less than 6" DBH. Burning could have the potential to disrupt either of these sensitive natural communities (although, more particularly, the chaparral is at risk for this) if occurring too frequently. This will be avoided by not burning within the ecological restoration treatment types more frequently than the "pre-historical" fire return interval for each sensitive natural community type. See the treatment specifications located in the Vegetation Treatment Plan, at the beginning of this PSA. Both these sensitive habitats have prescriptions clearly described to avoid potential type conversion. According to Fire in California Ecosystems,

"In general, the most frequent fire occurred in grasslands and oak woodlands, with decreasing fire frequencies in chaparral, mixed evergreen, and montane mixed conifer. The least frequent fire occurred in moist, coastal conifer forests..."

Oregon white oak and California Black oak are fire-enhanced, facultative sprouters...

Pre-historically, Oregon white oak woodlands experienced frequent, low-intensity surface fires, many of which were ignited by Native Americans. Mean fire return intervals varied from 7 to 13 years in Oregon white oak woodlands in Humboldt County (Sugihara, Wagtenonk, Shaffer, Fites-kaufman, Thode 2006)"

There is also a serpentine area which was identified within the project area. This sensitive environment will be avoided during operations. All riparian habitats shall be protected with the provisions of HYD-4 and BIO-4, through the establishment of a WLPZ buffer. See BIO-4 regarding treatment specifications for riparian habitats. Treatments within this buffer were designed to protect the biological function of these sensitive communities. All riparian habitats are mapped as springs, wet areas, ponds, and Class I or II watercourses. BIO-4 will be implemented within the slope and class dependent WLPZ buffer. See Attachment A.

Impact BIO-4

The treatment activities have the potential to negatively impact wetlands and riparian habitats. With the inclusion of the SPR's listed in the table above, this impact will be less than significant. These SPRs include the development of slope dependent, watercourse, and wet area protections. The treatment activities and their potential to impact wetlands were assessed in the PEIR and were found to be less than significant after the inclusion of the SPR's listed. The proposed treatment activities are therefore within the scope of the PEIR, because they are the same as those listed in the PEIR.

Impact BIO-5

The treatment activities could result in direct or indirect adverse effects on wildlife corridors because suitable habitat is present in the treatment area. These impacts were found to be within the scope of the PEIR. These treatment activities are also within the scope because they are the same as those analyzed in the PEIR. In fact, it is expected that some wildlife corridors for certain species will ultimately be improved by the treatment activities. By protecting the forest ecosystem as a whole, the habitat corridors, while slightly degraded in the short term will be protected from high intensity wildfire in the future. This will conserve the corridors in the long run and promote a healthy fire resilient ecosystem. Furthermore, with the inclusion of the riparian zone protections, there will be areas of intact wildlife corridors which connect multiple treatment areas to untreated landscapes.

Impact BIO-6

The treatment activities do not have the potential to result in the reduction of habitat or abundance of common wildlife. There is expected to be an increase in habitat for species throughout the treatment area, due to the

removal of dead and down, as well as invasive species and the return of the forests to a historically accurate stocking level. Furthermore, the consequences of a devastating wildfire would be catastrophic to wildlife and their habitat. By taking steps to reduce standing dead and down fuels and improve fire resiliency of existing habitat, the potential for such a wildfire to occur will be greatly reduced. Because of this, the project as proposed will not have a significant negative impact to common wildlife habitat or individuals and a long-term increase and net benefit to habitat and wildlife is expected. The treatment activities are consistent with those analyzed in the PEIR and are therefore within the scope of the PEIR.

Impact BIO-7

This impact does not apply to the treatment areas.

Impact BIO-8

This impact does not apply to the treatment areas.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscape presented in the PEIR, constitutes a change in the geographic extent presented in the PEIR. The habitat conditions and characteristics as well as the biological resources present in these areas are the same as those within the treatable landscape. Consequently, the impact will be the same and is within the scope of this PEIR for all of the above listed impacts.

PD-3.6: GEOLOGY, SOILS, PALEONTOLOGY, AND MINERAL RESOURCES

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

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

LTS: Less than Significant; LTSM: Less than significant with mitigation; PSU: Potentially Significant and unavoidable; PS: Potentially Significant

New Geology, Soils, Paleontology, and Mineral Resource Impacts: Would the treatment result in other impacts to geology, soils, paleontology, and mineral resources that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
		Potentially Significant	Less Than Significant with Mitigation Incorporated
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Impact GEO-1

There is a potential for the treatment activities to cause erosion and loss of topsoil. This impact was examined in the PEIR and determined to be less than significant. The proposed project is within the scope of the PEIR because the treatment activities are the same as those examined in the PEIR. Furthermore, with the inclusion of SPR GEO-1-8, the impact will be reduced to a level of insignificance. By postponing ground disturbing operations during saturated soil conditions and implementing the erosion control measures outlined in the SPRs the project proponent will ensure the topsoil is protected.

- For SPR GEO-3: It is not practicable to treat all exposed soil with mulch after a prescribed fire which exposes more than 50% of the soil surface within a treatment area. First off, this would defeat the purpose of removing flammable material for the health of an ecosystem, which has been identified as having too much fuel. By adding mulch to an area that was just burned, the project proponent would essentially be putting fuel back on the landscape. Next, these forests are highly adapted to fire, meaning they are equipped to restore ground cover quickly in order to prevent catastrophic top soil loss in the long term. Finally, the scale in which fire is used on a landscape, is such that the degree of soil exposed can be up to 100 or more acres.

For these reasons, it is unreasonable to assume that mulching or otherwise stabilizing all exposed soils treated with fire. The project proponent will only stabilize disturbed soil as a result of prescribed fire, immediately around road watercourse crossings and potentially unstable areas.

Impact GEO-2

The treatment activities would include vegetation removal from steep slopes. An RPF has assessed the treatment areas on slopes over 50% to identify potentially unstable areas. Unstable areas that were identified by the RPF during reconnaissance are mapped. See Appendix C for a map of these potential unstable areas. Operations will not occur within these areas unless reviewed by a licensed geologist.

Impact GEO-2 is within the scope of the PEIR because the treatment activities are the same as those assessed in the PEIR.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land within the CalVTP that is outside of the treatable landscapes constitutes a change to the geographic extent presented in the PEIR. However, within the boundary of the project area, the geology, slopes, and types of treatments are representatively the same, both outside and inside the treatable landscape, thus the potential impacts will be the same.

PD-3.7: GREENHOUSE GAS EMISSIONS

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

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

LTS: Less than Significant; LTSM: Less than significant with mitigation; PSU: Potentially Significant and unavoidable; PS: Potentially Significant

New GHG Emissions Impacts: Would the treatment result in other impacts to GHG emissions that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Impact GHG-1

Use of vehicles/equipment and prescribed burning during treatment activities will result in greenhouse gas emissions. Conflicts with applicable plans, policy, and regulations aimed at reducing GHG emissions may occur due to this project. This was examined in the PEIR. These impacts associated with this project are within the scope of the PEIR because the treatment activities, types of equipment, and duration of use are the same as those analyzed in the PEIR. Furthermore, by carrying out the project in this way, the goal will be to reduce the likelihood of a catastrophic wildfire from occurring. This type of event would create a massive GHG emission at one time. The controlled release of GHG in small amounts during this project is less impactful than the, all at once, release which is likely to occur during a catastrophic wildfire. SPR GHG-1 is not applicable to the proposed project because the property is not a registered carbon offset property. As such, the requirement to inform reporting under the Board of Forestry and Fire Protection’s assembly bill 1504 Carbon Inventory Process does not apply.

Impact GHG-2

Use of vehicles/equipment and prescribed burning during treatment activities will result in greenhouse gas emissions. This was examined in the PEIR. These impacts associated with this project are within the scope of the PEIR because the treatment activities, types of equipment, and duration of use are the same as those analyzed in the PEIR. SPR GHG-1 is not applicable to the proposed project because the property is not a registered carbon offset property. As such, the requirement to inform reporting under the Board of Forestry and Fire Protection’s

assembly bill 1504 Carbon Inventory Process does not apply. Mitigation measure GHG-2 will be applied to reduce the GHG emissions during prescribed fire activity. These measures, such as mosaic burning, low fuel consumption, and retention of LWD/snags will provide for Biochar production, carbon sequestration, and reduced carbon emissions.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent of the PEIR. However, the same plans policies, and regulations adopted to reduce GHG emissions apply in the areas outside the treatable landscape, as within it. Likewise, the climate conditions are the same within the treatable landscape as they are just outside of it for this project. The fuel composition outside of the treatable landscape ranges from the same fuel loading and type to drastically lower fuel loading. The resulting emissions related to all treatment activities will be either the same or significantly less than within the treatable landscape. Because of this the GHG impacts listed above will be the same or lesser; the resulting within the scope finding stands.

PD-3.8: ENERGY RESOURCES

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

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

New Energy Resource Impacts: Would the treatment result in other impacts to energy resources that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[Identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Impact ENG-1

The impact to energy resources as a result of this project would be the same as described in the PEIR. This impact was determined to be less than significant and unavoidable. The impact is expected to decrease over time as equipment and methods used for vegetation management become more efficient.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent of the PEIR. However, the energy use outside of the treatable landscape is expected to be highly similar, if not the same as within it (for this project). This is because the vegetation types, fuel types, and slopes are mostly consistent throughout. Likewise, the equipment used will not vary. As a result of this information, the impact determination will not change.

PD-3.1: HAZARDOUS MATERIALS, PUBLIC HEALTH AND SAFETY

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact HAZ-1: Create a Significant Health Hazard from the Use of Hazardous Materials	LTS	Impact HAZ-1, pp. 3.10-14 – 3.10-15	Yes	HAZ-1, HYD-4	NA	LTS	No	Yes
Impact HAZ-2: Create a Significant Health Hazard from the Use of Herbicides	LTS	Impact HAZ-2, pp. 3.10-15 – 3.10-18	Yes	HAZ-5, HAZ-6, HAZ-7, HAZ-8, HAZ-9	NA	LTS	No	Yes
Impact HAZ-3: Expose the Public or Environment to Significant Hazards from Disturbance to Known Hazardous Material Sites	PS	Impact HAZ-3, pp. 3.10-18 – 3.10-19	Yes	NA	HAZ-3	LTSM	No	Yes

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Hazardous Materials, Public Health and Safety Impacts: Would the treatment result in other impacts related to hazardous materials, public health and safety that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Impact HAZ-1

The proposed treatment activities would require the use of fuels and related accelerants, which are hazardous materials. The potential for these treatment activities to cause a significant health hazard was examined in the PEIR and determined to be Less than significant. This impact is within the scope of the PEIR because the treatment activities, associated equipment, and types of hazardous materials used are the same as those analyzed in the PEIR.

Impact HAZ-2

Herbicide application is proposed to control invasive non-native plants/trees, as well as reduce the level of resprouting within fuel breaks. Application will be achieved by ground methods only (no aerial spraying will occur). The target plant will be backpack sprayed or cut and stump painted. The potential for treatment activities to cause a significant health hazard was examined in the PEIR. This impact is within the scope of the PEIR because the types of herbicides and the application methods proposed are the same as those analyzed in the PEIR. With the implementation of SPRs HAZ-5 through HAZ-9, the impacts will be less than significant.

Impact HAZ-3

Soil disturbance during mechanical treatments and prescribed burning have the potential to expose workers, the public and the environment to existing hazardous materials, if present within the treatment areas. This impact was examined in the PEIR and determined to be potentially significant, and less than significant after mitigation. The impact is the same for this project because the treatment types and potential hazardous materials are the same.

Mitigation HAZ-3 will be implemented by the project proponent prior to implementation of mechanical and prescribed fire treatment activities. The landowner shall be consulted as to the location of known hazardous materials on the property.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent presented in the PEIR. However, the hazardous materials used, the environmental conditions, and the exposure potential is the same as what was analyzed in the PEIR. Furthermore, the regulatory conditions and policies are the same. As a result, the inclusion of land outside of the treatable landscape is within the scope of the PEIR.

PD-3.2: HYDROLOGY AND WATER QUALITY

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

Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact HYD-5: Substantially Alter the Existing Drainage Pattern of a Treatment Site or Area	LTS	Impact HYD-5, p. 3.11-31	Yes	HYD-4, HYD-6, GEO-1, GEO-2, GEO-5	NA	LTS	No	Yes

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Hydrology and Water Quality Impacts: Would the treatment result in other impacts to hydrology and water quality that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Impact HYD-1

Ash and debris from prescribed burning could be washed by runoff into drainages and streams and this potential impact was assessed in the PEIR. To prevent this impact, treatment areas are designed to avoid streams and watercourses, while implementing erosion control measures as described in the SPRs. WLPZs and class III watercourse protection measures will ensure adequate filter strips to avoid significant impacts from this treatment activity. See HYD-4 in the SPRs in Attachment A. This impact was assessed in the PEIR and found to be less than significant with the implementation of the SPRs listed above. The treatment activity is within the scope of the PEIR because it is designed to be a low intensity prescribed burn, which is the same as what was analyzed in the PEIR. Chaparral is planned to be burned at an appropriate interval to prevent converting this ecotype. Chaparral will be burned in patches to prevent exposing large areas of bare soil within the project area and avoid hydrolyzing the soil. These burn unit designs will be approved by an RPF to ensure this impact remains less than significant.

Impact HYD-2

Vegetation treatments will include mechanical and manual methods. WLPZs and class III watercourse protection measures will ensure adequate filter strips to avoid significant impacts from this treatment activity. See HYD-4 in the SPRs in Attachment A. This will significantly limit activities within the WLPZs and class IIIs to lower this impact to a level of insignificance. Heavy equipment shall not be used when saturated soil conditions exist, preventing compaction, soil loss, and sedimentation. Waterbars shall be installed where necessary, as outlined in the SPRs, to prevent sedimentation. This includes, existing roadway drainage structure protection, as well as areas exposed during mechanical treatments.

Mechanical treatments will most often entail mastication, which provides erosion control innately during treatment. The chips created during this type of treatment will act as a mulch, covering any freshly exposed soil, preventing soil loss during heavy rain events. Erosion control monitoring shall ensure all facilities are functioning and exposed soil is not at risk of delivering to any class I, II, or III watercourses. Impact HYD-2 was assessed in the PEIR and found to be less than significant with the implementation of the listed SPRs. The treatment activity is within the scope of the PEIR because it is the same as what was analyzed in the PEIR.

Impact HYD-3

Prescribed herbivory does have the potential to violate water quality standards, but with the inclusion of the SPRs listed above, the impact will be less than significant. WLPZs and class III watercourse protection measures will ensure adequate filter strips to avoid significant impacts from this treatment activity. See HYD-3 in the SPRs in Attachment A. This impact was assessed in the PEIR and found to be less than significant. The treatment activity is within the scope of the PEIR because it is the same as what was analyzed in the PEIR.

Impact HYD-4

The use of herbicide has the potential to violate water quality standards. WLPZs and class III watercourse protection measures will ensure adequate filter strips to avoid significant impacts from this treatment activity. See SPRs in Attachment A. These SPRs pertinent to this impact were designed to prevent herbicide from entering waterways in amounts deleterious to water quality. SPR HAZ-5 requires the project proponent to prepare a spill prevention and response plan prior to beginning any herbicide treatment activities. This will mitigate potential impacts associated with spilled chemicals reaching waterways. Herbicide use will comply with application regulations as per SPR HAZ-6. Use will be coordinated with the County Agricultural Commissioner, and all required licenses and permits will be obtained prior to herbicide application. All herbicide applications will be implemented consistent with recommendations prepared annually by a licensed PCA.

This impact was assessed in the PEIR and found to be less than significant with the implementation of the SPRs listed above. The treatment activity is within the scope of the PEIR because it is the same as what was analyzed in the PEIR.

Impact HYD-5

Treatment activities could cause ground disturbance and erosion, which could directly or indirectly modify existing drainage patterns. WLPZs and class III watercourse protection measures will ensure adequate filter strips to avoid significant impacts from these treatment activities. The SPRs listed above will require waterbar placement where erosion and runoff are highly likely, as well as require repair and maintenance of existing drainage and erosion control infrastructure. This doesn't mean existing erosion control issues will be fixed, but rather all erosion control devices functioning pre-project implementation shall be maintained.

Impact HYD-5 was assessed in the PEIR and found to be less than significant with the implementation of the listed SPRs. The treatment activities are within the scope of the PEIR because they are the same as those analyzed in the PEIR.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent presented in the PEIR. However, the hydrology, topography, and treatment methods are consistent with those analyzed in the PEIR, thus they are also within the scope of the PEIR. Furthermore, the existing environmental and regulatory conditions pertinent to hydrology and water quality are the same.

PD-3.3: LAND USE AND PLANNING, POPULATION AND HOUSING

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

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Land Use and Planning, Population and Housing Impacts: Would the treatment result in other impacts to land use and planning, population and housing that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

Impact LU-1

NA

Impact LU-2

NA

New Land Use and Planning, Population and Housing Impacts

NA

PD-3.4: NOISE

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1, pp. 3.13-9 – 3.13-12; Appendix NOI-1	No	None	NA	NA	NA	NA
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	No	None	NA	NA	NA	NA

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Noise Impacts: Would the treatment result in other noise-related impacts that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Impact NOI-1

There are no nearby receptors sensitive to increased ambient noise levels.

Impact NOI-2

There are no nearby receptors sensitive to increased ambient noise levels.

New Noise Impacts

N/A

PD-3.5: RECREATION

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact REC-1: Directly or Indirectly Disrupt Recreational Activities within Designated Recreation Areas	LTS	Impact REC-1 pp. 3.14-6 – 3.14-7	No	None	NA	NA	NA	NA

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Recreation Impacts: Would the treatment result in other impacts to recreation that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion			
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant			
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Discussion

Impact REC-1

No recreational areas will be impacted by this project.

New Recreation Impacts

N/A

PD-3.6: TRANSPORTATION

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project ¹	List MMs Applicable to the Treatment Project ¹	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact TRAN-1: Result in Temporary Traffic Operations Impacts by Conflicting with a Program, Plan, Ordinance, or Policy Addressing Roadway Facilities or Prolonged Road Closures	LTS	Section 3.15.2; Impact TRAN-1 pp. 3.15-9 – 3.15-10	No	NA	NA	NA	NA	NA
Impact TRAN-2: Substantially Increase Hazards due to a Design Feature or Incompatible Uses	LTS	Impact TRAN-2 pp. 3.15-10 – 3.15-11	Yes	AD-3, HYD-1, TRAN-1	NA	LTS	No	Yes
Impact TRAN-3: Result in a Net Increase in VMT for the Proposed CalVTP	PSU	Impact TRAN-3 pp. 3.15-11 – 3.15-13	Yes	NA	AQ-1; See exclusions in discussion	PSU	No	Yes

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Transportation Impacts: Would the treatment result in other impacts to transportation that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion	
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Discussion

Impact TRAN-1 NA

Impact TRAN-2

Smoke generated during prescribed burning operations may necessitate the implementation of a Traffic Management Plan (TMP). The need for this will be assessed during the preparation of the prescribed burn based on weather, location of burn and orientation to local traffic patterns. This impact was assessed in the PEIR. The impact of this project is within the PEIR because the treatment activity is the same as what was covered in the PEIR.

Impact TRAN-3

This impact was examined in the PEIR and this projects impact determination is the same because the project utilizes the same treatment methods and equipment.

The overall impact was determined to be Potentially significant and un-avoidable by the PEIR. Mitigation measure AQ-1 will be applied where feasible and will, along with the SPRs, reduce the impact. The following mitigation measures listed under AQ-1 will not be applied due to lack in technology and infeasibility at the local level:

- Use renewable diesel fuel in diesel-powered construction equipment. Renewable diesel fuel must meet the following criteria:

- be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., non-petroleum sources), such as animal fats and vegetables;

The use of this type of fuel is not feasible due to economic constraints. Diesel fuel from non-petroleum sources (i.e. Biofuel) is far less efficient than diesel fuel. This would result in a significant decrease in the number of acres treated per day by mechanical equipment. This would fail to accomplish the increased pace and scale targets set by the State of California, to decrease critical fuels levels.

Furthermore, research is lacking in the benefits of biofuel over diesel in regard to work/output performed (Wp) vs. total emissions (Te) created. While there are certainly less emissions created by the engine via a set amount of time when using biofuel, the correlation between work performed and total emissions created has not been properly analyzed. Since the biofuel powered engine requires a longer time to complete the project, there is a potential for the total emissions created to be greater than the diesel-powered engine, potentially making it a poor mitigation.

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

- *Currently there are no alternatives available which offer the functional ability to handle the workload required for the treatment activities. Diesel engines are the most efficient and widely available option for completing fuels treatments, particularly with regards to mechanical treatment activities. Furthermore, gasoline engines lack the torque required to complete treatments on steep slopes under extreme loads. This is where Diesel engines have an advantage, allowing treatment on areas which would otherwise be untreatable. Diesel powered equipment also has a greater workload ability, allowing work to be completed faster. This has both an economic impact to the project as well as a reduced duration of air quality offense.*

Lithium-ion batteries lack the range and charging speed to allow “theoretical” electric powered heavy equipment to complete the job within any sort of real-world efficiency. Because the jobs are so far from any charging station, it would be necessary to have a mobile charging source. That charging source would likely require a gas-powered generator to work (due to the location of the proposed treatments), thus defeating the purpose of the mitigation measure.

Ultimately, the technology is lacking, both locally and elsewhere, to include this mitigation measure as a feasible option.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent presented in the PEIR. However, the land included doesn't contain new areas which introduce new regulatory environments or change the impact on transportation as analyzed.

PD-3.7: PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

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

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

LTS: Less than Significant; PS: Potentially Significant; LTSM: Less than Significant after Mitigation

New Public Services, Utilities and Service System Impacts: Would the treatment result in other impacts to public services, utilities and service systems that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
		Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant	
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Impact UTIL-1

Treatments involve the use of prescribed burning, which may require water usage if the burn goes out of prescription. Also, water may be utilized for dust abatement as described in the SPRs. The potential increased demand for water was examined in the PEIR. The impact is within the scope of the PEIR because the activities scope and duration are the same as those analyzed in the PEIR. The amount of water potentially required was assessed in the PEIR and found to be less than significant.

Impact UTIL-2

Vegetation biomass and other material will not be transported off site during operations. All vegetation shall be burned, chipped, or lopped and scattered on site.

Impact UTIL-3

NA

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent presented in the PEIR. However, the land included doesn't contain new areas which when burned, will require a significant increase in the required water used for prescribed fire mop up. Also, the environmental conditions are the same as those assessed within the treatable landscape. As a result, there are not expected to be any new impacts related to UTIL-1, 2, or 3. The included areas are within the scope of the PEIR.

PD-3.8: WILDFIRE

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

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

New Wildfire Impacts: Would the treatment result in other impacts related to wildfire that are not evaluated in the CalVTP PEIR?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes, complete row(s) below and discussion		
	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Discussion

Impact WIL-1

Treatment activities pose a risk of wildfire ignition as well as prescribed fire escaping its control lines. This potential risk was examined in the PEIR and found to be less than significant with implementation of the SPRs. This impact is within the scope of the PEIR because the treatment activities, types of equipment and duration/intensity are the same as those analyzed in the PEIR. The project proponent is responsible for maintaining control lines during all prescribed burning activities.

Impact WIL-2

Steep slopes occur within the project area. The potential exposure for people or structures to post-fire landslides was examined in the PEIR. This impact is within the scope of the PEIR because the treatment activities, types of equipment and duration/intensity are the same as those analyzed in the PEIR. With the implementation of the above listed SPRs, the impact should be less than significant.

CalVTP Addendum: Change to Geographic Extent

The inclusion of land that is outside of the treatable landscapes constitutes a change to the geographic extent presented in the PEIR. However, the land included doesn't contain new areas which when treated, will cause a significant increase in the impacts listed above. Also, the environmental conditions are the same as those assessed within the treatable landscape. The included areas outside the treatable landscape have the same environmental conditions, vegetation types, erosion hazard ratings, geology, and orientations to the public as within the treatable landscapes. As a result, there are not expected to be any new impacts outside the scope of the PEIR. Consequently, these additional areas are within the scope of the PEIR.

References

- Fire in California's Ecosystems. 2006. Neil G. Sugihara, Jan W. Van Wagtendonk, Keven E Shaffer, Joann Fites-kaufman, Andrea E. Thode. University of California Press, Berkeley and Los Angeles, California.
- CalEPA. California Environmental Protection Agency
- California Department of Fish and Wildlife. <https://Wildlife.ca.gov>
- California Department of Transportation. List of eligible and officially designated scenic highways. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.
- Inventory of Rare and Endangered Plants of California. California Native Plant Society. (online). <https://www.rareplants.cnps.org>.
- California Natural Diversity Database. 2021. Results of records search. Sacramento: California Department of Fish and Wildlife, Biogeographic Data. List updated August, 2021.
- Caltrans. California Department of Transportation.
- DTSC. California Department of Toxic Substances Control.
- Natural Resource Conservation Service. Web Soil Survey. <https://websoilsurvey.nrcs.usda.gov/app/>.
- California Forest Practice Rules 2020. State of California. Department of Forestry and Fire Protection. P.O. Box 944256, Sacramento, CA 94244-2460
- John D. Stuart, John O. Sawyer Trees and Shrubs of California. University of California Press Berkeley and Los Angeles, California. 2001.
- David L. Wood, Thomas W. Koerber, Robert F. Scharpf, Andrew J. Storer. Pests of the Native California Conifers, University of California Press Berkeley and Los Angeles, California. 2003
- National Audubon Society, Field Guide to Trees, Western Region: Elbert L. Little. Chanticleer Press Inc. 1980
- Weaver and Hagans. Handbook For Forest And Ranch Roads , 2015
- Joyce and Nungesser, 2000. Ecosystem Productivity and the Impact of Climate Change: USDA Forest Service Gen. Tech. Rep. RMRS-GTR-59. (pgs. 46-68) 2000.
- North Coast Regional Water Quality Control Board (NCRWQCB) 2006. Desired Salmonid Freshwater Habitat Conditions for Sediment-Related Indices, July 28, 2006. 60 pgs.
- Chamberlin, T. W. et al. 1991. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. Special Publication 19, American Fisheries Society, Bethesda, Maryland. Pg. 181-205.
- Everest, F. H. and W. R. Meehan. 1981. Some Effects of Debris Torrents on Habitat of Anadromous Salmonids. National Council of the Paper Industry for Air and Stream Improvement, Technical Bulletin No. 353, New York, NY. Pg 23-30.
- Madej, M. A. et al. 2000. Effectiveness of Road Restoration in Reducing Sediment Loads. Unpublished Report, U.S. Geological Survey Redwood Field Station, Arcata, CA.
- McGarigal, K. and W. C. McComb. 1995. Relationships Between Landscape Structure and Breeding Birds in the Oregon Coast Range. Ecological Monographs, Volume 65. pg. 235-260.
- Megahan, W. F. Roads and Forest Site Productivity. U.S. Forest Service, Intermountain Research Station, Ogden UT.
- Murphy, M. L. 1995. Forestry Impacts on Freshwater Habitat of Anadromous Salmonids in the Pacific Northwest and Alaska-- Requirements for Protection & Restoration. NOAA Coastal Ocean Program Decision

Analysis Series No. 7. U.S. Dept. of Commerce, National Oceanic & Atmospheric Administration, Coastal Ocean Office, Silver Spring, MD.

- Reeves, G. H., J. D. Hall, T. D. Roelofs, T. L. Hickman, and C. O. Baker. 1991. Rehabilitating and modifying stream habitats. Pages 519-557 in W. R. Meehan, ed. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. American Fisheries Society, Bethesda, Maryland. Special Publication 19.
- Reeves, G. H. et al. 1995. A Disturbance-Based Ecosystem Approach to Maintaining and Restoring Freshwater Habitats of Evolutionarily Significant Units of Anadromous Salmonids in the Pacific Northwest. American Fisheries Society Symposium 17, Bethesda, MD. Pg 334-349.
- Reid, L.M. 1998. Proceedings of the Conference on Coastal Watersheds: The Caspar Creek Story. Pacific Southwest Research Station, Albany, CA. pg 117-127.
- Rice, R. et al. 1975. Sampling Water Quality to Determine the Impact of Land Use on Small Streams. Paper presented at ASCE Watershed Management Symposium, Utah State University, Utah. August, 1975.
- Sindel, J. E. 1960. Jackson State Forest Pilot Study in Stream Clearance 1952-1959 California Division of Forestry. Sacramento, California.
- Yocom, C. F. and S. W. Harris 1975. Birds of Northwestern California. Humboldt State University, Arcata, CA.
- Ziemer, R.R. 1981. Roots and Stability of Forested Slopes. In proceedings: Symposium on Erosion and Sediment Transport in Pacific Rim Steeplands. Christchurch, New Zealand. January 1991. Pages 343-361.
- Zwieniecki, M. A. and M. Newton. 1999. Influences of Streamside Cover and Stream Features on Temperature Trends in Forested Streams of Western Oregon. Western Journal of Applied Forestry, Volume 14, Issue 2, pg. 106-113.
- Purcell, K. L., A. K. Mazzoni, S.R. Mori & B. B. Boroski. 2009. Resting structures & resting habitat of fishers in the southern Sierra Nevada, Ca. Forest Ecology & Management. 258 (2009) 2696-2706. <http://naldc.nal.usda.gov/download/35920/PDF>
- Rombough, C.J. 2006. Wintering Habitat Use by Juvenile Foothill Yellow-Legged Frogs (*Rana boylei*): The Importance of Seeps. Northwestern Naturalist 87:159.
- <https://ucjeps.berkeley.edu/eflora>