Sonoma County Fire District – Windsor Area Regional Parks
CalVTP # 2022 – 28

Project Specific Analysis and Addendum to the CalVTP PEIR

Prepared for:
Sonoma County Fire District
8200 Old Redwood Hwy
Windsor, CA 95492

Prepared by:

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Frontier Resource Management

Contributors:

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ATTACHMENTS

COMMON TERMS AND ACRONYMS KEY:

RPF: Registered Professional Forester.

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. The total height of resulting scattered vegetation, shall not exceed 18" above the ground.

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

LRA: Local 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.

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.

The proposed treatment areas covered by this PSA include Shiloh Regional Park, Foothill Regional Park, and a few surrounding private properties as shown in the maps in attachment C.

CEQA LEAD AGENCY AND PROPOSED PROJECT

The California Board of Forestry and Fire Protection will function as the lead agency. The responsible agency is Sonoma County Fire Protection District and will make the final determination regarding this proposed projects CEQA compliance. The project proponent will vary between Sonoma County Regional Parks (SCRP) and the Sonoma County Fire District (SCFD), depending on where the treatments are taking place. SCRP being the project proponent and verifying/monitoring entity for Shiloh Ranch Regional Park and Foothill Regional Parks - and SCFD being the project proponent and verifying/monitoring entity for the 32-acre area to the south (see attachment C – Project Proponent Responsibility Area Map). The project proponent is solely responsible for the prescription of all vegetation treatments proposed, including the implementation, mitigations, monitoring, and SPRs shown in attachment A.

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. The Sonoma County Fire 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 ecological restoration, fuel breaks, and wild-land urban interface fuels reduction. The treatment activities will include manual, mechanical, herbicide, 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 223 of the 1,055 acres are outside of the identified “treatable landscape” (the geographic extent of the PEIR). This is mainly due to the digital development of the boundary at such a large scale, which did not allow for high resolution mapping. This caused areas to be excluded with the same or similar vegetation types as within the treatable landscapes and bisected some parcels. Also, areas represented by oak woodlands which function as transition zones between grasslands and forested landscapes were mostly dis-included due to their perceived low density. These areas need treatment, as they provide fuel ignition and transfer fire to these “treatable landscapes”. The invasion of grasses into oak woodlands and oak savannas has moved these areas into an extreme fire danger.

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 can be 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.

VEGETATION TREATMENT PLAN

CURRENT FOREST CONDITIONS

Shiloh Ranch & Foothill Regional Parks, along with the surrounding community, were impacted by the Tubbs (2017) and Kincade (2019) fires. During these events the parks served as a strategic location for wildfire suppression by fire fighters, helping to protect adjacent residential communities. The reduction of fuels within these areas will help prevent catastrophic wildfires while protecting public infrastructure.

The project area has an elevation range between 200 – 1,000 ft above sea level and can be delineated into 3 distinct forest types. Oak woodlands, Douglas-fir dominant ecotype, and Eucalyptus stands. The oak woodlands are comprised of Valley oak *(Quercus lobata)*, Interior live oak *(Quercus wizlizeni),* 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. The Douglas-fir dominant ecotypes, mostly existing on the north facing slopes, are comprised of Douglas-fir *(Psuedotsuga menziesii),* Pacific madrone, California bay laurel *(Umbellularia californica),* Interior live oak, Coast live oak and various understory species.

Foothill Regional Park

Foothill Regional Park represents the northern unit of the plan area. The park's dominant ecosystem type is an oak woodland with varying densities. The current estimated tree stocking ranges from 20 TPA in the oak savanna types to over 400 TPA on the north facing slopes.

The Kincade fire burned through a majority of the park, with the control line being established approximately 500 ft from the western boundary (see Recent Fire History Map, in attachment C). The resulting mortality was high throughout Foothill, where between 40-50% of the standing trees are either dead or dying. Many of the trees which initially survived the fire, were severely impacted by insect and disease infestation over the past 3 years. These trees will continue to die and fall to the forest floor over the next 2 decades, causing an even greater fuel load than before the fire. By removing dead trees now, insect and disease outbreaks can be managed, and future fuel loads reduced.

Due to the fire intensity that occurred, there is a plethora of brush and tree regeneration throughout the park, further increasing the abundance of ladder fuels.

Shiloh Ranch Regional Park

Shiloh Ranch represents the bulk of the project area, situated between Mark West Springs Rd and Hwy 101. The forest types present are oak woodlands and Douglas-fir dominant stands, with the former being the dominant forest type.

The oak woodlands contain a slightly higher average stocking than Foothill, with between 50 TPA to over 400 TPA. The Douglas-fir dominant stands contain between 300-700 TPA. For both these stand types, there is evidence of reduced vigor and insect/disease infestation brought on by competition for light, water, and nutrients.

The Tubbs Fire burned through most of this area in 2017 with varying intensity. The overall result was far less destructive than the effect of the fire at Foothill. While there are pockets of high mortality rates, most of the larger overstory trees survived, and appear of moderate health 5 years following the event. The larger Douglas-fir trees, however, are showing signs of decline (as is expected with older fir trees this far south and inland). All of the Douglas-fir dominant stands are showing substantial evidence of decline due to the fire damage. The overstory should be significantly thinned to improve the health of the stands.

Adjacent Private Parcel

There is a stand of Eucalyptus to the south of Shiloh Ranch Regional Park, in a native oak woodland/grassland habitat. This is a non-native and highly invasive species, which poses a great fire risk to the parks and surrounding community. This project is focused on reducing the horizontal and vertical fuel continuity, improving forest health, and eradicating invasive non-native species through ecological restoration.

TREATMENT GOALS AND SPECIFICATIONS

The Windsor Area Regional Parks CalVTP is proposed by the project proponents to improve forest health, increase fire resilience, and reduce the risk of wildfire to the surrounding community. The following goals and specifications describe the target structure of the different forest types shown on the Forest Types Map (attachment C). 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 fewer 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. Areas dominated by chaparral shall retain a minimum of 50% of the pre-existing occupancy in a mosaic pattern (i.e. islands of habitat shall be retained throughout the treatment area).
- 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 to ensure the Resource Conservation Standards stated in the California Forest Practice Rules CCR 14 912.7, 932.7, 952.7 are met.
- Fire damaged trees showing signs of reduced vigor, insect/disease infestation, and/or poor crown health shall be targeted for removal. Not all fire damaged trees shall be removed.
- Retention trees will be pruned to a height of 8-12 feet, but the live crown will not be reduced below 50%.
- Limit "high stumps". Cut trees to maximum 6" above the ground.
- When dispersing chips throughout the treatment area, prevent the piling of chips greater than 8" above the ground.
- 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.
- Snags should be retained where feasible within ecological restoration treatment types. Removal of snags will occur within shaded fuel breaks and WUI treatment types. Snags shall be inspected by an RPF or Biologist, for the presence of sensitive species prior to removal.

Treatment Specifications - Douglas-fir Dominant Stands: *Target stocking post treatment = 100-150 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 20-50 ft.
- Retain healthy trees with a > 10" DBH unless posing a safety hazard. Trees determined to die within 5 years, may be removed regardless of DBH, species, or age.
- 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 Savanna 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. Trees determined to die within 5 years, may be removed regardless of DBH, species, or age.
- Target a 20-50 foot average spacing (dependent on oak ecosystem type) between retained trees, regardless of size class. Favor retaining true oaks.

TREATMENT TYPES

The following treatment types are proposed: fuel break, wildland urban interface fuels reduction, and ecological restoration (see Treatment Types Map in attachment C). The treatment activities will include mechanical, manual, herbicide application, prescribed burning (Broadcast and Pile), and prescribed herbivory.

Wildland-Urban Interface Fuels Reduction:
The WUI fuel reduction – directly adjacent to the communities of Windsor, Larkfield and Wikiup – will entail strategic vegetation removal to prevent or slow the spread of wildfire in defense of community structures, such as, private residence, water tanks, and park maintenance facilities. WUI treatments will be most aggressive within the first 300 ft of houses and infrastructure. These treatments will entail removing the most vegetation of all three treatment types. Up to 90% of existing ground fuels, shrubs, and trees < 6" DBH will be removed, chipped, or burned. This will significantly reduce the potential for a crown fire to transfer from the wildland to surrounding structures. 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. Dead and down woody material will be removed, lop-n-scattered, chipped, or burned. However, lop and scatter will not occur within 150 feet of habitable structures or water tanks. Herbicide shall be used within these areas where necessary to prevent invasive non-natives and resprouting species. This will ensure the WUI is maintained. A PCA shall be consulted prior to any herbicide application. Snags will 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.

Fuel Breaks:
Shaded Fuel Breaks will be created approximately 100 feet on both sides of trails, roads, and ridgelines. These treatments will provide staging areas to support fire-fighting and will provide control lines during prescribed fire activity. Shaded fuel-breaks will be developed and maintained within 100 ft of all roads and structures. 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 shall 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. Snags will 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 150-200 years, 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 overtaken by invasive species over the last 100 years.

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 surface 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.

There are some oak woodland and grasslands which have been overtaken by Eucalyptus. The Eucalyptus shall be completely removed in these areas. This will encourage oak regeneration while providing a significant decrease in the current fuel loading. Cut eucalyptus will be treated at the stump with an herbicide and sprouts will be foliar sprayed. Herbicides are a necessity to prevent the Eucalyptus from aggressively resprouting. A PCA will be contacted prior to herbicide application to write an herbicide use recommendation and spill prevention plan. *All herbicide use shall comply with SPR HAZ-5 , HAZ-6, HAZ-7, HAZ-8, and HAZ-9 as shown in attachment A.*

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

Approximately 406 acres are proposed utilizing this method. 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 may occur within these mapped areas as well as from 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. Uprooting will not occur within the ecological restoration areas but may occur occasionally within the WUI and fuels break treatments. 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

All 1,055 project acres may utilize manual treatments to accomplish the proposed goals, although these treatment activities are more likely to occur outside of the mechanical treatment areas. These treatments may involve between 5-20 laborers utilizing chainsaws, pole saws, tracked, and tow behind chippers. Cut material will be either lopped and scattered, chipped, or piled and burned in accordance with the treatment specifications above. Lop and scatter shall not occur within 150 ft of a habitable structures or water tanks.

Prescribed Burning Treatments

Prescribed burning is proposed on all 1,055 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 on 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 specify the burn window during the development of the burn plan. 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 enable lower intensity burning, particularly around high value trees.

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

Herbicide Treatments

Herbicides may be applied throughout the entirety of the proposed project. 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 breaks and WUI treatment area). 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

Targeted grazing may occur anywhere within the 1,055 acres, while following the limitations defined in Attachment A SPRs. This treatment activity will entail between 300-500 goats/sheep. Grazing is highly effective at reducing ladder fuels and will be utilized surrounding fuel breaks and WUI treatment types. Initiating grazing prior to prescribed burning is a great way to reduce the intensity of burns and lower the degree of tree scorching.

CalVTP PROJECT INFORMATION

1. **Project Title:** Shiloh Ranch and Foothill Regional Parks CalVTP
2. **Project Proponent Names and Addresses:**

Sonoma County Fire District	County of Sonoma Regional Parks Department
8200 Old Redwood Hwy	2300 County Center Drive, Suite 120A
Windsor, CA 95492	Santa Rosa, CA 95403

3. **Contact Person Information and Phone Number:** Jacob Harrower, (707) 391-9883
4. **Project Location:** Windsor, CA, Sonoma County. Sections 6, 7, 15, 16, 20, 21, 22, & 28 T8N, R8W MDBM. Healdsburg & Mark West Springs USGS 7.5 Minute Quadrangle.

   The Project area includes two regional parks along with four private parcels, just east of the town of Windsor, in Sonoma County, California. Shiloh Regional Park and Foothill Regional Park make up most of the area, while the private parcels surround a crucial community water supply. The CalVTP has been broken up into two planning units. The northern unit (Foothill Regional Park) and the southern unit, comprised of - Shiloh Regional Park & approximately 33 acres surrounding the community water supply to the south.

5. **Total Area to be Treated (acres)** 1,055 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), 1,055 acres

☒ Prescribed Burning (Pile Burning) 1,055Acres

☒ Mechanical Treatment, 406 acres

☒ Manual Treatment, 1,055 acres

☒ Prescribed Herbivory, 1,055 acres

☒ Herbicide Application, 1,055 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.*

  Wildland Urban Interface Fuels Reduction Maintenance:

  Treatments within the WUI will reoccur every 2-10 years depending on how quickly the post treatment vegetation is regenerating. This will mainly depend on the level of vegetation removed during the initial treatment, the pre-treatment vegetation type, and whether herbicides were applied. It is anticipated the WUI treatments will require maintenance treatments more often due to the greater canopy openings created during initial treatment

  Fuel Break Maintenance:

  Treatments within the Fuel Break areas will reoccur every 2-10 years depending on the degree of vegetation regeneration. This will mainly depend on the amount of vegetation removed during the initial treatment, the pre-treatment vegetation type, and whether herbicides were applied. Due to the emphasis on canopy retention, it is anticipated the understory will regenerate more slowly.

  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 or burning.

- *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), 1,055 acres

☒ Prescribed Burning (Pile Burning) 1,055 Acres

☒ Mechanical Treatment, 406 acres

☒ Manual Treatment, 1,055 acres

☒ Prescribed Herbivory, 1,055 acres

☒ Herbicide Application, 1,055 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 County near the town of Windsor. The property is a mix of county owned and privately owned parcels. The main land use within these areas is recreational: hiking, jogging, mountain biking, and bird watching. There are also three private parcels zoned residential at the southern end of Shiloh Regional Park which are included in the plan.

8. Other Public Agencies Whose Approval is Required: (e.g., permits)
    - Smoke management plan will be prepared for BAAQMD.
    - Burn Permit will be obtained from CALFIRE.
    - 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 groups were contacted by ALTA Archaeological Consulting on 11-1-22. Results of those consultation efforts are included in the confidential report in attachment D.

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	Date: 5/23/23
Printed Name: STEVE MOSCUCCHAC	Title: FIRE MARSHAL
Agency: COUNTY of SONOMA FIRE PREVENTION	

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	Yes	AES-2, AQ-2, AQ-3	NA	LTS	No	Yes
Impact AES-2: Result in Long-Term, Substantial Degradation of a Scenic Vista or Visual Character or Quality of Public Views, or Damage to Scenic Resources in a State Scenic Highway from WUI Fuel Reduction, Ecological Restoration, or Shaded Fuel Break Treatment Types	LTS	Impact AES-2, pp. 3.2-20 – 3.2-25	Yes	AES-1, REC-1	NA	NA	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

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
	☐	☐	☐

Discussion

Impact AES-1

The potential for the proposed treatment activities to result in short-term degradation of the visual character was examined in the PEIR. The proposed treatments will occur within public and privately owned land which is viewable by the public. Portions of the project area are located in a mapped Sonoma County General Plan scenic corridor and landscape unit. Impact to this scenic corridor was examined in this PSA. Due to the intensity of treatments proposed, there is expected to be a net benefit to the scenic character throughout this corridor and landscape unit. Currently, the ecosystem within this area is very unhealthy due to the overgrown understory and increased invasive species. The project will thin out the understory which will improve the visual character of this area in the short and long term. Many trees are currently dead or dying due to overstocked conditions of the past 100 years. By removing trees in these areas, there will be greater access to light, water, and nutrients for the retained ecosystem. This will improve the fundamental value of the scenic character of these areas.

The potential for the project to result in a short term impact to this resource area is within the scope of the PEIR because the treatment activities are consistent with those analyzed in the PEIR. Through the inclusion of the SPRs, were feasible, as outlined in the PEIR the impact will be Less than significant.

Because the impact on the visual resource is less than what would occur during a catastrophic wildfire, particularly in the long term, this subject is negligible. The inclusion of land that is outside of the treatable landscape presented in the PEIR, is geographically and visually the same as that included in the PEIR, therefore, the impact will be the same and is within the scope of this PEIR.

Impact AES-2

The potential for long-term impact to visual resources as a result of the project was assessed in the PEIR and found to be less than significant. This is mostly due to the retention of large trees on the landscape while thinning smaller trees and brush.

There is one 2-3 acre area proposed for ecological restoration treatment, where complete removal of all Eucalyptus trees from within a historically occurring grassland/oak-savanna habitat will occur. This area is located on a private parcel viewable from a short section of hiking trail located on the Shiloh Ranch Regional Park.

The impact to visual resources will be temporary and insignificant. The Eucalyptus trees are non-native, invasive species which are currently degrading the intrinsic value of the naturally occurring oak woodland and grassland. By removing these trees, the project proponent will improve the overall aesthetic and visual resource in the long run by restoring the environment to its historical ecosystem type.

The resulting short-term impact to visual resources will be due to the processing of debris from the eucalyptus trees and the following bare soil created. This area will soon revegetate with grass and oak trees, making this impact fall in line with the PEIR's analysis of AES-2. The overall impact to visual resources and intrinsic aesthetic value is expected to improve as a result of the ecological restoration treatment.

Impact AES-3

This impact does not apply to the proposed project because no complete fuel breaks are proposed.

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

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact AG-1

Initial and maintenance treatments 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 Redwood), oak woodland, oak savanna, 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 chapparal species.

Small Eucalyptus stands are proposed for removal within the oak woodland/ oak savanna forest types as part of the ecological restoration treatments. Removal of these non-native forest patches will restore the oak woodland habitat type, thus protecting the native forest resources present. If these invasive stands are not controlled, they will continue to overtake the surrounding forest land further threatening forest conversion by invasive species. Their removal represents actions to conserve forest resources.

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	SU	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	SU	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	SU	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	SU	No	Yes

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

LTS: Less than Significant; SU: 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact 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 then 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 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

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

LTS: Less than Significant; SU: 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

ALTA Archaeological consulting conducted a survey and report to satisfy CEQA requirements regarding historical and prehistorical resources. Attachment D shall be maintained as a confidential document.

Impact CUL-1

The Proposed treatments include mechanical and prescribed burning, which could damage historical resources. Specific protection measures regarding historic resources are discussed in attachment D. The potential for historical period resources to be damaged during these activities 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 protection measures have been designed by an archaeologist. See attachment D for the archaeological report.

Impact CUL-2

Vegetation treatments include mechanical treatments that could disturb the ground, potentially resulting in damage to unknown archaeological resources. A survey and record search has been conducted by a professional archaeologist to protect any known sites. The potential for these activities to result in further undiscovered historic resources was examined in the PEIR. 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. The result of this impact would be less than significant after mitigation.

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. This potential 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.

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 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	LTS	Impact BIO-1, pp 3.6-131–3.6.138	Yes	BIO-1, BIO-2, BIO-7, BIO-9, AQ-3, AQ-4, 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	BIO-2a, BIO-2b, BIO-2g	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	PS	Impact BIO-3, pp 3.6-186–3.6-191	Yes	BIO-1, BIO-2, BIO-4, BIO-5, BIO-6, BIO-9, HYD-5	BIO-3a	PS	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	Yes	BIO-1, BIO-2, BIO-12	NA	LTS	No	Yes
Impact BIO-7: Conflict with Local Policies or Ordinances Protecting Biological Resources	No Impact	Impact BIO-7, pp 3.6-198–3.6-199	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								

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

LTS: Less than Significant; SU: 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Pursuant to SPR BIO-1, 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 areas for these special status species.

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 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.

Frontier Resource Management conducted reconnaissance-level surveys throughout 2022, to identify and document sensitive resources within the treatment areas. This included aquatic habitat, riparian habitat, and 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 potential to occur within the treatment area based on the data review and reconnaissance-level surveys. Some species included in attachment B were ruled out due to lack of habitat.

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 all potential species occurring within the 9-quad area. Pursuant to SPR BIO-7, the Sonoma County Regional Parks have been performing and documenting botanical surveys between 2019 and 2022. See report, received from SCRP staff, in attachment B. During these surveys, no listed species were identified, but special status species were. They are listed below, to be included in the biological resource training for workers, SPR BIO-2.

The known occurrences are shown in the botanical report map (attachment B). These plants will be protected by BIO-1b Mitigation measures (see attachment A). The treatment activities and their potential for adverse effects on special-status plants is within the scope of the PEIR.

Non-listed Special Status Plants discovered during Botanical Surveys within the Project area

(See botanical report in attachment B)

Napa False Indigo *(Amorpha californica var. napensis)*

Status: CNPS 1B.2

Habitat requirements and description: This species is prevalent in Sonoma and Napa County. It thrives on cooler sights within mixed conifer and mixed oak woodland ecosystems. Growing to between 1 and 6 ft tall, its leaves are approximately 1 inch long and oppositely arranged. The inflorescence is purple and uniquely arranged vertically from the plant usually between 6 " to 1 foot long.

Potential for Occurrence: This species exists throughout the northern portion of Shiloh Regional Park in great numbers. See the Biological Special Treatment Zones map for exact locations.

Mitigations: MM BIO-1b shall be implemented within the areas defined in the Shiloh Ranch Regional Park Botanical Survey Map.

Lobb's Buttercup *(Ranunculus lobbii)*

Status: CRPR 4.2

Habitat requirements and description: An aquatic plant growing in various types of shallow-water habitat, including forest ponds and vernal pools. It is an annual herb which flowers from February to May.

Potential for Occurrence: This species was located during botanical surveys within the southern portion of Shiloh Regional Park. See the Biological Special Treatment Zones map for exact locations.

Mitigations: MM BIO-1b shall be implemented within the areas defined in the Shiloh Ranch Regional Park Botanical Survey Map.

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 a full analysis of all species occurring within the 9-quad area. Those species with moderate to high potential for occurrence 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. CDFW was consulted regarding potential impact and mitigations for the Western Bumblebee, California Tiger Salamander, and California Red Legged Frog. The results are included in Attachment B, and the recommendations have been incorporated into protection measures below. 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

Osprey (*Pandion haliaetus*)
Status: Board of Forestry Sensitive species
Potential for Occurrence: There is a low to moderate potential for habitat within the project area, mainly around the various wet areas, and ponds. No individuals or nests were observed during reconnaissance.
Ospreys are strictly associated with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitat types. Osprey are only able to dive up to three feet in depth, hence are typically associated with shallow fishing areas. These birds require open, clear water for foraging, such as rivers, lakes, reservoirs, estuaries, lagoons, swamps, marshes, and bays. Large trees, snags, and blown-out treetops in open forest habitats are used for cover and nesting. Tall, open-branched "pilot trees" are required nearby for landing before approaching the nest and for practice by the young (Zeiner et al. 1990a). Nests are a platform of sticks near or on the top of large snags, blown-out trees, cliffs, or on human-made structures. Nests are usually next to fish-bearing water, however, may be up to twelve miles away. Nests may be used year after year thus producing a large nest. Nest trees in California range from 30 to 81 inches dbh with nest heights averaging 135 feet (Airola and Shubert 1981). The osprey breeds in northern California from the Cascade Ranges south to Lake Tahoe, and along the coast to Marin County
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, the potential for negative impacts is very low. SPR BIO-2 will ensure workers are trained to identify this species and/or its nests.

American Peregrine Falcon (*Falco peregrinus anatum*)
Status: Federally and State Delisted; CDFW Fully Protected
Potential for Occurrence: There is a moderate to low potential for occurrence in the project area. High quality habitat is generally lacking throughout the project area. Nests may be located on human-made structures and occasionally within snag cavities. These are usually within an open site along a high cliff, bank, or mound overlooking water.
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, the potential it to be negatively impacted is very low. SPR BIO-2 will ensure workers are trained to identify this species.

Tricolored Blackbird (*Agelaius tricolor*)
Status: California Threatened
Potential for Occurrence: There is a low potential for occurrence within the project area near wetlands and ponds. No individuals were observed during field reconnaissance. They breed and forage in a variety of habitats, including salt marshes, moist grasslands, freshwater marshes, bay-shore habitats, riparian forests, and oak savannas. This species

commonly builds nests just above the ground or water and up to several meters high in trees. They exhibit highly social nesting; some colonies may have over 100,000 nests.
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, the potential it to be negatively impacted is very low. Watercourse protection SPRs along with SPR BIO-2 will prevent potential impacts to this species.

Great Blue Heron (*Ardea herodias*)
Status: None
Potential for Occurrence: This species was identified within the project area near a pond at the foothill regional park.
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, the potential to be negatively impacted by the treatments is very low. Watercourse protection SPRs along with SPR BIO-2 will prevent potential impacts to this species.

Mammals

Sonoma Tree Vole (*Arborimus pomo*)
Status: None; Species of Special Concern
Potential for Occurrence: The THP does contain potential habitat for the Sonoma Tree Vole. 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 however, they could be hidden up in the canopy.
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, the potential for it to be negatively impacted is very low. SPR BIO-2 will ensure workers are trained to identify this species.

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 or their dens were observed during field reconnaissance.
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, the potential it to be negatively impacted is very low. SPR BIO-2 will ensure workers are trained to identify this species.

American Badger (*Taxidea taxus*)
Status: None; Species of Special Concern
Potential for Occurrence: There is a low to moderate potential for this species to occur within the treatment units. No individuals or burrows were observed during field reconnaissance. Individuals may be found in drier open areas of chaparral, forest, or herbaceous habitats. They dig 4 ft - 6 ft wide burrows in the friable soils throughout these areas.
Mitigations: Due to the scope of treatments proposed, and the habitat requirements of this species, there is a potential to be negatively impacted during treatment activities. SPR BIO-2 will ensure workers are trained to identify this species and its potential burrows for avoidance.

Amphibians and Reptiles

Western Pond Turtle *(Emys marmorata)*
Status: None; Species of Special Concern
Potential for Occurrence: There is a high potential for occurrence within and near the ponds located within the project area. Multiple individuals were observed within Foothill Regional Park during reconnaissance.
Mitigations: There is a potential for this species to be impacted by treatment activities near water sources. With the inclusion of the watercourse protection measures described in the SPRs and the biological training for workers these

potential impacts to the species and habitat can be mitigated and prevented. Workers will be trained on identification of individuals and nest sites when working near perennial water sources. If located, work within 100 ft of the occurrence will stop and protection measures will be developed by the project RPF or qualified biologist to ensure take does not occur.

California Red-Legged Frog (*Rana draytonii*)
Status: Federally Threatened
Potential for Occurrence: There is a moderate potential for individuals to occur within the treatment areas near ponds. No individuals were encountered during field reconnaissance.
Mitigations: There is a potential for this species to be impacted by treatment activities near water sources. CDFW was consulted regarding the potential project impacts to this species. *SPR GEO-1 Suspend Disturbance during Heavy Precipitation* and *SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones* will be implemented, as recommended by CDFW. Watercourse protection measures will ensure retention of crucial habitat. Also, equipment exclusion from watercourse and lake protection zones (WLPZ) will further reduce the likelihood of take resulting from heavy equipment use. CDFW also recommends that project activities occur during daylight hours.

California tiger salamander – Sonoma County DPS (*Ambystoma californiense pop. 3*)
Status: Federally endangered; California threatened
Potential for Occurrence: There is a potential for this species to occur within the treatment areas around the ponds. Also, there are two low quality vernal pools located within Shiloh Regional Park. No Tiger salamanders were observed during reconnaissance. This vernal pool was surveyed by the RPF in December - 5 days after 3 inches of rain accumulation. There was no standing water within the vernal pool, making its status marginal. There was a general lack of high-quality habitat (logs, rocks, and burrows).
Mitigations: There is a potential for this species to be impacted by treatment activities near water sources. CDFW was consulted regarding the potential project impacts to this species. *SPR GEO-1 Suspend Disturbance during Heavy Precipitation* and *SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones* will be implemented, as recommended by CDFW. Watercourse protection measures will ensure retention of crucial habitat. Also, equipment exclusion from watercourse and lake protection zones (WLPZ) will further reduce the likelihood of take resulting from heavy equipment use. CDFW also recommends that project activities occur during daylight hours.

Foothill Yellow-Legged Frog *(Rana boylii)*
Status: California endangered throughout inland range.
Potential for Occurrence: There is a high potential for this species and habitat to exist within the treatment areas. No individuals were encountered during field reconnaissance.
Mitigations: This species was determined by CDFW as non-listed within its coastal range. The watercourse protection measures afforded by the SPRs in attachment A will prevent degradation to this species' habitat.

Insects

Western bumblebee (*Bombus occidentalis*)

Status: Candidate under CESA
Potential for Occurrence: There is low to moderate potential for occurrence throughout areas with habitat. During field reconnaissance, approximately 70 acres of oak savanna, grasslands, and chaparral habitat were discovered.
Mitigations: There is a potential for this species to be impacted by this project during brush/tree removal and prescribed burning. Mitigation measure BIO-2g will be implemented for this species' potential habitat (see Special Status Bumble Bee Habitat Maps in attachment C). This will restrict prescribed burning within these ~ 70 acres to between October and February. The long-term effect of the project will likely be the creation of high-quality habitat, and the prevention of tree encroachment into grasslands and meadows.

Consultation with CDFW was requested on December 20th, 2022 via email. A response was received on January 16th, 2023. The results are provided in Attachment B and were used to develop the mitigations listed above.

Blennosperma vernal pool andrenid bee (*Andrena blennospermatis*)

Status: None
Potential for Occurrence: There is a low to moderate potential for this species to be located with the vernal pool in Shiloh Regional Park. Blennosperma vernal pool andrenid bees are associated with the early spring bloom of Common stickyseed (*Blennosperma nanum*) and Baker's stickyseed (*Blennosperma bakeri*). The blooming period for Common stickyseed is from February through April, whereas the blooming period for Baker's stickyseed is from March through May. *A. blennospermatis* is a solitary, ground-nesting bee. Adults emerge early in the spring, with males emerging slightly earlier and dying off sooner than females. After emergence, the females of this species mate, and then begin excavating nests in the upland areas around vernal pools. The flight period for females ranges from late February to late April (Thorp and Leong, 1995). *A. blennospermatis* spatially restricts its foraging activities to near-neighbor flowers. Thus, bees may have difficulty colonizing areas around artificially-constructed vernal pools, because of their limited flight ability and low dispersal tendencies (Leong 1994, Thorp and Leong 1995, Leong, Randolph, and Thorp 1995).
Mitigations: Due to the scope of treatments proposed, there is a low potential for impact to this species. The highest potential will occur during the spring months coinciding with the blooming of stickyseed. With the implementation of the BIO SPRs and HYD SPRs listed in the PSA, it is anticipated there would be a less than significant impact to this species or its habitat. Watercourse protection measures will ensure retention of crucial habitat surrounding the vernal pool and biological training for workers will aid in detection of this species should it occur during treatments.

Conclusion

The potential for treatment activities to result in adverse effects on special status species was examined in the PEIR. The impacts for this project is within the scope of the PEIR because the treatment activities and intensity are consistent with those analyzed in the PEIR. Furthermore, the species associated with the project area were analyzed and habitat was assessed by the RPF during field reconnaissance throughout 2022, as per SPR BIO-1. No individual occurrences were observed, but suitable habitat was located (as would be expected).

The SPRs proposed in attachment A will prevent impact to the potential listed species and their habitat throughout the project area. Furthermore, the treatments are expected to have a net benefit to most species examined in this PSA. See Attachment B for more information on the species and habitats considered. No additional mitigations are required to protect listed species.

Impact BIO-3

There is no potential for the treatment activities to impact designated sensitive natural communities, as the project is proposed. Pure oak woodland stands were identified within much of Foothill Regional park, but much of this forest is already severely damaged by the recent fire. Many of the oak trees are dead or dying as a result of the high intensity wildfire. The project as proposed, see treatment specifications in the PSA, are anticipated to improve habitat for this natural community, by removing invasive species and encouraging natural oak regeneration. Also, large oak trees

which survived the fire will not be removed as part of this project. Prescribed burning will be conducted via low intensity burns, which will not risk conversion.

Northern hardpan vernal pools were identified within the 9-quad, and they were not located within the project area. While there are vernal pools within the project, which will be protected as class II watercourses, these ecosystems lack the water holding ability of Northern hardpan vernal pools. They are generally low-quality vernal pools with low water holding capability. These potential vernal pools were surveyed by Frontier Resource Management 4 days after receiving > 3" of rain. There was no standing water, only saturated soil.

There are oak woodlands and riparian habitats within the treatment areas. Due to the scope of treatments proposed and the SPRs, there is no potential for these communities to be converted. Large trees will only be removed if determined by an RPF or Arborist to be dead or dying. MM BIO-3a will be implemented to prevent damaging oak woodlands. Burning will occur within these areas no more frequent or with greater intensity than described in *Fire in California's Ecosystems (Van Wagtendonk et al. 2018) and the Manual of California Vegetation* (Sawyer et al. 2009 or current version). Prior to burning within Oak woodlands (as identified in the forest types map in attachment C) an RPF will be consulted regarding the prescribed fire intensity and frequency.

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 was 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 have the potential to result in reduction of habitat or abundance of common wildlife, including nesting birds. This resulting reduction will be minimal compared to the long-term benefits of carrying out the project as proposed. 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 occurring will be greatly reduced. Because of this, the project as proposed will have a temporary reduction in wildlife habitat and common wildlife and a long-term increase and net benefit to habitat and wildlife.

The treatment activities are consistent with those analyzed in the PEIR and will therefore be within the scope of the PEIR. With the incorporation of the SPRs listed in the table above, the impacts to BIO-6 will be less than significant. The implementation of BIO-12 will ensure that prior to mechanical, manual, and prescribed burning treatments, an RPF or qualified biologist conducts nesting bird surveys, and identifies and develops protection measures for critical wildlife habitat in the treatment area, up to 3 weeks ahead of treatments.

- *The following exceptions to BIO-12 common bird nest avoidance (excluding Raptors): Prescribed burning and targeted grazing for fuel reduction and ecological restoration during the spring and summer months target specific phenological stages of plant growth, such as the stage when the plant's metabolism has shifted from*

growth to incipient seed production, but prior to seed viability. Applying treatments at this stage of plant development eliminates production of viable seed and exhausts plant resources at a time when subsequent seed production is metabolically infeasible. This stage occurs within a limited time frame. Examples of this are medusa head (Elymus caput-medusae) and yellow star thistle (Centaurea solstitialis), which have limited windows of time to apply management treatments before seeds become viable. Avoidance measures such as establishing a buffer, modifying treatment, or deferring treatment will leave a viable seed source within the treatment area negating the original purpose of the treatment. Therefore, implementation of avoidance strategies to avoid loss of common bird nests in these and similar circumstances is infeasible.

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

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

LTS: Less than Significant; SU: 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact 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. Also, even weed free mulch has the ability to introduce weed seeds. 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.

- For SPR GEO-1: In cases where suspending prescribed herbivory is infeasible (due to 30% chance of rain), stocking rates per acre will be lowered to reduce soil disturbance impacts to less than significant levels.

Impact GEO-2

The treatment activities would include vegetation removal from steep slopes. An RPF or geologist will assess the treatment area prior to operations on slopes over 50% to avoid 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 RPF identified areas unless reviewed by a 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 and slopes are representatively the same as those in the treatable landscape, thus the 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	N/A	NA	LTS	No	yes
Impact GHG-2: Generate GHG Emissions through Treatment Activities	PS	Impact GHG-2, pp. 3.8-11 – 3.8-17	Yes	AQ-3	GHG-2	PS	No	Yes

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

LTS: Less than Significant; 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact GHG-1

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. 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 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.

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. Furthermore, the vegetation being burned in prescribed fires, is the same outside of the treatable landscape as within. Because of this, the GHG impacts caused by the inclusion of land outside of the treatable landscape will be unchanged.

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

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

LTS: Less than Significant; PS: Potentially Significant

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

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

Discussion

Impact ENG-1

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-3.9: 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

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact HAZ-1

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. The project proponents were contacted on December 20th, 2022 via email by Frontier Resource Management to determine if there are any known hazardous materials within the project area. A reply was received the same day. No hazardous materials sites are known to occur within the project area. There is one known site on a neighboring parcel greater than 1,000 ft from the project boundary. This parcel will not be affected by operations.

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-3.10: 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, BIO-4, BIO-5	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-3,	N/A	LTS	No	Yes
Impact HYD-4: Violate Water Quality Standards or Waste Discharge Requirements, Substantially Degrade Surface or Ground Water Quality, or Conflict with or Obstruct the Implementation of a Water Quality Control Plan Through the Ground Application of Herbicides	LTS	Impact HYD-4, pp. 3.11-30 – 3.11-31	Yes	HYD-1, HYD-5, BIO-4, HAZ-5, HAZ-7	NA	LTS	No	Yes

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

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact HYD-1

Ash and debris from prescribed burning could be washed by runoff into drainages and streams. Treatment areas are designed to avoid streams and watercourses. WLPZs and C 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.

Impact HYD-2

Treatments would include mechanical and manual treatments. WLPZs and C 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 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 C 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 C 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 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 C 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. This impact was assessed in the PEIR and found to be less than significant with the implementation of those 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-3.11: 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

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact LU-1
NA

Impact LU-2
NA

New Land Use and Planning, Population and Housing Impacts
NA

PD-3.12: NOISE

Impact in the PEIR			Project-Specific Checklist					
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Does the Impact Apply to the Treatment Project?	List SPRs Applicable to the Treatment Project[1]	List MMs Applicable to the Treatment Project[1]	Identify Impact Significance for Treatment Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?	Is this Impact Within the Scope of the PEIR?
Would the project:								
Impact NOI-1: Result in a Substantial Short-Term Increase in Exterior Ambient Noise Levels During Treatment Implementation	LTS	Impact NOI-1, pp. 3.13-9 – 3.13-12; Appendix NOI-1	Yes	AD-3, NOI-1, NOI-4, NOI-5, NOI-6	NA	LTS	No	Yes
Impact NOI-2: Result in a Substantial Short-Term Increase in Truck-Generated SENL's During Treatment Activities	LTS	Impact NOI-2, p. 3.13-12	Yes	NOI-1,	NA	LTS	No	Yes

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact NOI-1

The treatment activities have the potential for short-term increase in ambient noise levels from the use of heavy equipment. This is an unavoidable part of accomplishing the goals of this and all holistic vegetation treatments. These impacts were examined in the PEIR and were found to be Less than significant. The impacts are within the scope of the PEIR because the treatment activities and methods are the same as those analyzed in the PEIR.

Impact NOI-2

Same as NOI-1

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 treatment methods, sensitive receptor locations/frequency, and types of equipment are consistent with those analyzed in the PEIR, thus they are also within the scope of the PEIR.

PD-3.13: RECREATION

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

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

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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact REC-1

Treatment activities will occur within designated recreational areas on both Shiloh Regional Park and Foothill Regional Park. The potential for treatment activities to disrupt recreational activities was examined in the PEIR. The impacts associated with this project are within the scope of the PEIR because the treatment activities and recreational uses are the same as those analyzed in the PEIR. Treatment activities will rarely cause closures of recreation areas, and those closures will be for a short time.

Potential recreational users will be notified 2 weeks prior to park closing as per SPR REC-1, if the entire park will be closed down. If however, a partial closure will occur, the notification will occur the day of the partial closure. There may be an instance where the park will need to be closed without the 2 weeks' notice. For instance, when utilizing prescribed burning as a treatment tool, 2 weeks' notice is highly unlikely. This is because burning is highly dependent on weather conditions specified in the burn plan. In some instances, one day notice may be all that is feasible. This will not change the less than significant determination.

CalVTP Addendum: Change to Geographic Extent

None. 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 change the impact to recreational users.

PD-3.14: TRANSPORTATION

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

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

LTS: Less than Significant; PSU: Potentially Significant and Unavoidable; 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact TRAN-1

This impact was examined in the PEIR and found to be less than significant, particularly because any vegetation treatment would be required to adhere to any local plans or policies (in this case traffic plans). A TMP would need to be prepared if there was a deviation from the standard local policies. This is not anticipated as a result of the project specific treatments. Most treatments will occur within the parks properties which will have no impact on traffic outside of equipment ingress and egress, during initiation and completion of treatments. This impact is within the scope of the PEIR.

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 then 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

None. 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 create a significant change or a new impact not covered by the PEIR.

PD-3.15: 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	None	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

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

LTS: Less than Significant; PSU: Potentially Significant and Unavoidable; 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?	☐ Yes	☒ No	If yes, complete row(s) below and discussion

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

Discussion

Impact UTIL-1

Treatments involve the use of prescribed burning, which may require water supply. 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

NA

Vegetation will be burned, chipped, masticated, lop and scattered, and manufactured for firewood. Some biomass processing may occur, if a biomass processing facility is opened closer to the treatment area or funding is provided to cover the cost of shipping material to an existing facility. Currently, it is not anticipated that biomass production will occur, due to the economic infeasibility of transporting the material. "Solid waste" is not expected to be generated by this project.

Impact UTIL-3

NA

Vegetation will be burned, chipped, masticated, and lop-n-scattered. Some biomass processing may occur, if a biomass processing facility is opened closer to the treatment area or funding is provided to cover the cost of shipping material to an existing facility. Currently, it is not anticipated that biomass production will occur, due to the economic infeasibility of transporting the material. "Solid waste" is not expected to be generated by this project.

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 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 public utilities. The included areas are within the scope of the PEIR.

PD-3.16: 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-3, GEO-4, GEO-5, GEO-8	NA	LTS	No	Yes

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

LTS: Less than Significant; PSU: Potentially Significant and Unavoidable; LTSM: Less than Significant after Mitigation

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

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

Discussion

Impact WIL-1

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 do occasionally 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.

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