INITIAL STUDY

and

PROPOSED MITIGATED NEGATIVE DECLARATION

for a

Cal Fire and CalTrans
Highway 101 Fuel Reduction Project

Adopted:
Resolution No.:

Lead Agency:
Mendocino County Resource Conservation District
410 Jones Street, Suite C-3, Ukiah, CA 95482
www.mcrcd.org

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1.0 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

The Mendocino County Resource Conservation District (District or MCRCD), as Lead Agency, has prepared this Initial Study and Mitigated Negative Declaration for the proposed *Highway 101 Fuel Reduction Project* (Project, or FRP), as described in Sections 2.4 and 2.5, in compliance with the California Environmental Quality Act (CEQA), as amended, and in accordance with the State of California *CEQA Guidelines* (California Administrative Code, Title 14, Division 6, Chapter 3).

As the CEQA Lead Agency, the District has prepared this document to provide agencies and the public with information about the proposed project's potential impacts on the local and regional environment. This document addresses the recommendations and actions contained in the FRP that would result in physical changes to the baseline environmental conditions within the proposed project boundary. The purpose of this Initial Study (IS) is to determine whether implementing the project could result in potentially significant effects to the environment, and, if so, to incorporate avoidance and mitigation measures to eliminate or reduce the project's potentially significant adverse effects to less-than-significant levels.

If, after consideration of this IS and any comments received during the public review period, the District finds no substantial evidence that the proposed project would have a significant adverse effect on the environment, then a Mitigated Negative Declaration (MND) will be submitted for adoption by the District's Board of Directors, as provided in §15074 of the CEQA Statute.

1.2 PURPOSE

The purpose of this document is to evaluate the potential environmental effects of the proposed *Highway 101 Prescribed Burn Project*. The District has incorporated mitigation measures into the project to avoid any potentially significant impacts or reduce them to a less-than-significant level.

1.3 SUMMARY OF FINDINGS

Section 4.0 of this document contains the IS Checklist which identifies the potential environmental impacts by resource area and provides a brief discussion of each impact resulting from implementation of the proposed project. Based on the IS and supporting environmental analysis provided in this document, together with the incorporation of mitigation measures, the proposed project would result in less-than-significant impacts for the following issues: air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hydrology and water quality, noise and transportation and traffic.

In accordance with Section 15064(f) of the *CEQA Guidelines*, a MND will be prepared if the proposed project would not have a significant effect on the environment after the inclusion of mitigation measures. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of

mitigation measures, the proposed project would have a significant effect on the environment. Therefore, it is proposed that a MND be adopted in accordance with CEQA Guidelines.

2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

Project Name: *Highway 101 Roadside Fuel Reduction Project*

Project Summary: The District proposes to conduct a series of prescribed fires (controlled burns) to manage vegetation along 24.1 miles of the Highway 101 transportation corridor between postmile 17.2 (just south of the City of Ukiah near Nelson Ranch Road), and postmile 41.3 at the top of Ridgewood Grade (just south of the City of Willits), in Mendocino County.

2.2 PROJECT LOCATION

The 917 acre project is entirely within Mendocino County, California, and sits within the Russian River watershed (HUC-8 18010110). Starting from postmile 17.2 (just south of the City of Ukiah near Nelson Ranch Road), and then north to postmile 41.3 at the top of Ridgewood Grade (just south of the City of Willits), the project extends 24.1 miles along the Highway 101 corridor. The City of Ukiah and the surrounding areas of Calpella and Redwood Valley have the highest population densities, and therefore will benefit the most people from this effort. Other areas, such as Ridgewood Ranch and the Reeves Canyon community will also benefit from the reduced risk of high severity wildfire.

2.3 PROJECT PURPOSE AND GOALS

The primary purpose of the project is to reduce the risk of human-caused ignitions within the CalTrans Highway 101 ROW (see Appendix 1 for project maps). Other important objectives include the reduction of non-native and invasive plant species, improved habitat for native California plant species, and a generally higher level of resilience to future wildfire disturbance events.

The Initial Study for the proposed project has been prepared in conformance with specifications of the CEQA Statute, and the *State CEQA Guidelines*. Compliance with CEQA is required because of state and local jurisdiction over the proposed project.

2.4 PROJECT BACKGROUND AND ENVIRONMENTAL SETTING

Project Setting: Of the 917 project acres, 543 are within the Local Responsibility Area (LRA) and 374 are within the State Responsibility Area (SRA). There is also a small strip of 0.25 acres within the Federal Responsibility Area (FRA) that is part of the Coyote Valley Reservation lands; however, it is unlikely that this area will be treated as it is on the east side of State Street in Redwood Valley. The majority of the project area within the SRA has a California Department of Forestry & Fire Protection (Cal Fire) Office of the State Fire Marshal (OSFM) Fire Hazard

Severity Zone classification of "High", with smaller areas of "Moderate" and "Very High" severity zones (Cal Fire 2023). The project area lies in an area containing flammable vegetation that is within 1.5 miles of a wildland urban interface (WUI) or wildland urban intermix zone (see WUI Map).

Conditions in California have become particularly favorable for severe wildfire due to decades of fire suppression, prolonged periods of drought, plant disease and infestations, an increase in non-native grasses across the landscape, and the expansion of the wildland-urban interface into high fire risk areas (Williams et al. 2019), and Mendocino County is no exception to this trend (NOAA 2024). The risk of severe wildfire has also increased due to the effects of climate change, which has resulted in a steady increase in the variability of precipitation events (Luković et al. 2021), and increased average temperatures in California by 1.5°C relative early 20th century average (Bedsworth et al. 2018). The result is an earlier drying of vegetation, an increase in the length and severity of droughts (Williams et al. 2015; Williams et al. 2019), and an expansion of California's fire season well into the autumn months. Regional climate models suggest that California could experience additional temperature increases of 2°C to 6°C by the end of the 21st century, (Bedsworth et al. 2018). These climate changes will continue to shift California's fire regimes away from their historic range of variability (Thorne et al. 2017; Goss et al. 2020).

Within the project area, topography, weather and climate conditions, and naturally occurring fuels, combined with consistently moderate levels of vehicle traffic along the Highway 101 transportation corridor, lends itself to frequent fires. Since 2018, at least five fires have been ignited along the Highway 101 corridor between Hopland and Willits. These include a series of spot fires that were ignited between Ukiah and Hopland on September 1, 2023, which were believed to have been started by a vehicle dragging a chain along the roadway (LaFever, 2023); the 11.5-acre "Golden Fire" that ignited on August 27, 2023 south of Willits (Maxwell, 2023); the 30-acre "Highway Fire" that began near Highway 101 in the City of Ukiah on August 12, 2021 (Holguin, 2021); a 1.8-acre fire that broke out on June 23, 2023 near Redwood Valley (Stierch, 2023); and a 47-acre fire along highway 101 that was reported on July 21, 2018 near Reeves Canyon Road (Frederiksen, 2018). These incidents suggest that human-caused ignitions along the Highway 101 corridor could be a significant risk to central Mendocino County, which this project aims to mitigate.

Highway 101 is also major transportation corridor between the San Francisco Bay Area and the inland coastal communities of Northern California. During emergencies, the Highway acts as defensible space and serves as a critical evacuation route for the cities of Ukiah, Willits, as well as for the surrounding communities of Redwood Valley, Ridgewood Ranch, Reeves Canyon Road, and the many smaller towns and communities north of Willits extending up and into Humboldt County. The Highway also provides safe ingress and egress for emergency personnel during emergency events. Both CALTRANS and Cal Fire consider this section of Highway 101 a high-priority for fuels treatments to improve its function as an emergency travel route and improve its ability to reduce threats of wildfire to surrounding communities (Cal Fire, 2023; CalTrans, 2024).

This project is needed to reduce vegetative fuel loads adjacent to, and along the median of, the Highway 101 transportation corridor, and is an important measure for ensuring public safety by

reducing fire risk to nearby rural and urban communities, and for improving fire suppression capabilities and firefighter safety. This project proposes to use prescribed fire to reduce vegetation biomass in the project area, particularly the amount of fine fuels and ladder fuels. The project will thereby improve the ability of Highway 101 to function as an emergency travel route and will reduce the potential for ignition and spread of fire into adjacent communities and wildland areas. This initiative is essential for reducing fuel loads alongside the Highway 101 transportation corridor within the CalTrans ROW. It represents a crucial step in safeguarding public safety by mitigating fire risks to nearby rural and urban communities. In addition, it will enhance fire suppression capabilities and promotes firefighter safety during emergency events. The proposed project aims to use prescribed fire to decrease biomass in the designated area, focusing on reducing fine fuels and ladder fuels within the project area.

2.5 PROPOSED ACTION

The proposed project will consist of a series of prescribed fires to manage vegetation along 24.1 miles of the Highway 101 transportation corridor between postmile 17.2 (just south of the City of Ukiah near Nelson Ranch Road), and postmile 41.3 at the top of Ridgewood Grade (just south of the City of Willits), in Mendocino County. Work will occur along the Highway 101 shoulder, along the center median, around on and off ramps (including cloverleafs), around turnouts, and other areas within the CalTrans ROW. The project will be implemented and managed by Cal Fire. Containment will utilize the existing interstate/roadways and previously created containment lines, although previous containment lines may need to be reestablished or maintained in some places using hand crews. Burning will be performed at night and early mornings to limit potential daytime impacts to the local community and to vehicle traffic on Highway 101. Work is anticipated to begin in mid-June and go through the fall of 2024, the timing of which will depend on vegetation curing rates and environmental conditions. CalTrans and Cal Fire plan to conduct annual prescribed burn treatment thereafter, which are also considered under this study.

There are many benefits to using prescribed fire. In addition to being a cost and time efficient management tool, prescribed fire allows land managers to have a say in the timing and intensity of fire. Prescribed fire can lessen the impacts of wildland fire and/or provide benefits for environmental resources, such as wildlife habitat improvement, range improvement, aesthetic enhancement of the project, as well as enhance safety by reducing the amount of fuels, including dead and dying vegetation. If a wildfire does occur in an area that was treated, the wildfire may be contained sooner with reduced area burned at high intensity. The reduced number of acres or reduced fire intensity will have benefits to other resources, including environmental resources, public health, and public and firefighter safety.

In addition to being an effective fuels management tool, many of California's native plant species have evolved with, and are adapted to (or at least resilient to), frequent fire intervals (Knapp et al. 2009, Keeley et al. 2011). Using low to moderate intensity, prescribed fires may potentially reduce invasive species populations and enhance native plant species populations (Carlsen et al. 2017, DiTomaso et al. 2017). In this project, prescribed fire will be used to reduce the fuel load of ground fuels, coarse woody debris, as well as a portion of the above

ground biomass. The purpose of the fire is to reduce the risk of large damaging fires by creating conditions that increase effectiveness of fire suppression.

The desired fire intensity for a prescribed fire is low to moderate. All prescribed fires will be subject to local and state regulations to maintain air quality and reduce fire escape risk. A burn plan will be developed for the project prior to implementation that outlines the parameters (timing, weather, fuel moisture, etc.) necessary to implement the project to ensure that the fire remains low- to moderate-intensity and does not spread outside the project perimeter. The plan will develop protocols for dealing with any fire escapes outside the project perimeter. All prescribed fire activities carry a risk of fire escape, but the project design has reduced this risk below a significant level. By conducting burns with highly trained fire professionals (Cal Fire), the project reduces the risk of wildfire below the level of risk associated with the no-project alternative. Spotting outside of fire lines should not be a problem with correct firing methods and weather patterns as prescribed in the burn plan. By reducing fuels, the project will reduce, not exacerbate the effects of any future wildfire.

2.6 REGULATORY SETTING

Required Actions. The District proposes to:

1. Adopt the Mitigated Negative Declaration and Mitigation Monitoring Plan

Approvals and Permits. The *Highway 101 Fuel Reduction Project* includes several activities that would be subject to permitting by various regulatory agencies. Permits and/or approvals required from the following local, state and federal agencies to implement elements of the FRP include:

☐ California Department of Transportation (CalTrans)
☐ Mendocino County Air Quality Management District – Regulation 2- Open Outdoor Burning
☐ Federal Aviation Administration – rule 77-9, Form 7460-1

2.7 PROJECT REVIEW AND APPROVAL

In accordance with Section 15073 of the *CEQA Guidelines,* the District is distributing this Initial Study and Mitigated Negative Declaration for review by local, state and federal agencies with jurisdiction over the project area. A notice of availability of the IS/MND has been sent to nearby property owners and other interested parties. A Public Hearing on the project will be held at a regular District Board of Directors meeting at District headquarters, 2950 Peralta Oaks Court in Oakland. The IS/MND is available for review at the following locations:

Mendocino County Resource Conservation District
410 Jones Street
Suite C-3
Ukiah, CA 95482
Web site: www.mcrcd.org
Phone: (707) 462-3664
Fax: (510) 635-3478
Email: doug@mcrcd.org

Ukiah Public Library
105 N Main Street
Ukiah, CA 95482
(707) 463-4990

Written comments on the IS/MND should be submitted in writing to the District prior to the conclusion of the 30-day public comment period. Comments should be mailed or emailed to the MCRCD Forestry Program, attention: Doug Turk, at the above address or email.

In reviewing the IS/MND, affected public agencies, organizations and interested citizens should focus on the sufficiency of the document in identifying and analyzing any potential impacts to the environment, and the proposed ways in which any significant effects of the project are to be avoided or reduced.

The District will review and evaluate written comments received during the public review period, and determine whether any substantial new environmental issues have been raised. If there are substantial new environmental issues, not covered in the IS/MND, further documentation, such as an Environmental Impact Report or an expanded IS/MND, may be required. If not, the District's Board of Directors will adopt the Mitigated Negative

Declaration and approve the project. The District will then file a Notice of Determination with the State of California Office of Planning and Research, and the Mendocino County Clerk-Recorder's Office within five days following project approval.

3.0 SUMMARY OF MITIGATION MEASURES

AIR QUALITY

MITIGATION AIR-1: To minimize the impacts of smoke from prescribed burn operations, Cal Fire will prepare a smoke management plan for review and approval by the Mendocino County Air Quality Management District (MCAQMD). Moreover, on burn days, Cal Fire will monitor the conditions to confirm that the burn could proceed as planned, and MCAQMD may send an air quality analyst to monitor smoke production along with Cal Fire personnel. Appropriate staff and firefighting equipment would be deployed to the site for the duration of the prescribed fire and subsequent clean up.

BIOLOGICAL RESOURCES

MITIGATION BIO-1: Within seven days prior to the execution of each prescribed burn, a survey will be conducted to locate special status plant species that have not completed their annual lifecycle, are perennial, or that otherwise may be harmed by the presence of fire. Identified plants will be flagged and an appropriately sized fire exclusion zone will be established where fire will not be allowed to enter.

MITIGATION BIO-2: Within seven days prior to the implementation of each prescribed burn during the active bird nesting season, February 1st through July 31st, the Cal Fire shall conduct site-specific, pre-construction surveys to determine the presence of nests of legally protected bird species. In addition, construction activities near active nesting locations will be conducted only after the young have fledged, as determined by a qualified wildlife biologist. Such surveys will not be required outside of bird nesting season.

MITIGATION BIO-3: During a prescribed burn, if Cal Fire or the District's biological monitor finds species of concern within the burn area, individual animals will be hazed or otherwise removed from the project area by a qualified wildlife biologist. Burns may be suspended for the amount of time necessary to perform this action

MITIGATION BIO-4: Watercourses will be given a 50-foot buffer zone where equipment will be excluded, and fire will not be introduced. However, fire will be allowed to spread into these areas when moving into the wind or moving downslope at a slower and less intense rate of spread. All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats.

MITIGATION BIO-5: Wetlands, and seeps will be given a 25-foot buffer zone where equipment will be excluded, and fire will not be introduced. However, fire will be allowed to spread into these areas by moving into the wind or moving downslope at a slower and less intense rate of spread, with the exception of TBMP's where fire will be excluded but weed whacking and hosing down of the area before a prescribed fire event is scheduled is allowed. All equipment and staging areas shall occur within upland areas and shall avoid wetland,

riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats.

HAZARDS AND HAZARDOUS MATERIALS

MITIGATION HAZ-1: In addition to MITIGATION AIR-1, at least 30 days prior to project execution, Cal Fire shall communicate its plans to conduct prescribed burn operations to the Ukiah Unified School District, the Pinoleville Rancheria, and to the Coyote Valley Reservation. In addition, one of the following mitigation strategies shall be implemented:

Mitigation Strategy 1: Cal Fire shall conduct prescribed burn operations at a time when schools within one-quarter mile of the construction site will: 1) not be in session, and 2) children will otherwise not be on campus and potentially exposed to hazardous smoke (e.g., during outdoor sporting events or other outdoor activities).

Mitigation Strategy 2: Cal Fire shall: 1) notify to the Ukiah Unified School District, the Pinoleville Rancheria, and the Coyote Valley Reservation the day prior to the burn taking place; 2) provide schools and Tribes with guidelines on how to respond if smoke conditions worsen, such as keeping windows and doors closed, using air purifiers, or possibly relocating outdoor activities indoors; 3) ensure that environmental conditions are such that the direction and timing of smoke will limit downwind exposure to schools and Tribes, especially during school hours; 4) keep open lines of communication with local schools and Tribes to help manage concerns and coordinate with school and Tribal activities to minimize exposure.

MITIGATION HAZ-2: As per Federal Aviation Administration (FAA) rule 77-9, at least 45 days prior to project construction, Cal Fire shall submit a completed FAA Form 7460-1 to the FAA, communicating its plan to conduct prescribed burning operations near the Ukiah Municipal Airport. Similarly, Cal Fire shall notify the Ukiah Municipal Airport, in writing, of its plans to conduct prescribed burns along the Highway 101 ROW at least 45 days in advance of project execution taking place within 2 miles of a runway.

NOISE

MITIGATION NOISE-1: Internal combustion engines will be equipped with a muffler type recommended by the manufacturer. Equipment and trucks will utilize the best available noise-control techniques (e.g., engine enclosures, shrouds, intake silencers, ducts, etc.) whenever feasible and necessary. In project areas located within the City of Ukiah boundary, or in areas outside the City of Ukiah boundary, but in close proximity to urban housing, the engines on heavy equipment such as fire trucks and water-tenders shall be shut off (i.e., not left idling), unless needed to construct the project.

4.0 INITIAL STUDY CHECKLIST

Project Information		
1.	Project Title:	Highway 101 Fuel Reduction Project
2.	Lead agency name and address:	Mendocino County Resource Conservation District, 410 Jones Street, Suite C-3, Ukiah, CA 95482
3.	Contact person and phone number	Doug Turk, (707) 462-3664 x107
4.	Project location	Refer to section 2.2, *Project Location*
5.	Project sponsor's name and address	California Department of Forestry and Fire Protection (Cal Fire), 2690 N. State Street, Ukiah, CA 95482
6.	General plan designation	Mendocino County General Plan
7.	Zoning	N/A
8.	Description of project	The District proposes to conduct a series of prescribed fires (controlled burns) to manage vegetation along 24.1 miles of the Highway 101 transportation corridor between postmile 17.2 and postmile 41.3 in Mendocino County
9.	Surrounding land uses and setting	Refer to sections 2.4 – *Project Background and Environmental Setting*
10.	Other public agencies whose approval is required	Refer to sections 2.6 – *Regulatory Setting*

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Less-than-Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

□	Aesthetics	□	Agriculture / Forestry Resources	■	Air Quality
■	Biological Resources	□	Cultural Resources	□	Energy
□	Geology/Soils	□	Greenhouse Gas Emissions	■	Hazards & Hazardous Materials
□	Hydrology/Water Quality	□	Land Use / Planning	□	Mineral Resources
■	Noise	□	Population / Housing	□	Public Services
□	Recreation	□	Transportation	□	Tribal Cultural Resources
□	Utilities / Service Systems	□	Wildfire	□	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared by: Doug Turk, Forestry Program Manager

Doug Turk — 5/7/2024

Signature **Date**

Approved by: Stephanie Garrabrant-Sierra, Executive Director

Stephanie Garrabrant-Sierra — 5/7/2024

Signature **Date**

4.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	■

Threshold of Significance: A significant impact might occur if the project introduces elements that are visually incongruent with the existing landscape, significantly obstructs public views, permanently alters a recognized scenic resource, or creates a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

a, b, d) Would the project: a) Have a substantial adverse effect on a scenic vista?; or b) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings or within a state scenic highway?; or d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? The project is not located within a designated State Scenic Highway. There are no scenic resources or vistas within the project area boundary. The project will not create new sources of light or glare which would adversely affect day or nighttime views in the area.

Potential Impact: No impact
Mitigation: None required

c) In nonurbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Although the project will result in the temporary presence of chard and/or burnt vegetation within the Project Area Limit (PAL), the impacted section of roadway is not designated as a State Scenic Highway by the California Department of Transportation (CalTrans, 2024), and any aesthetic impacts of the burn will be temporary in nature. In addition, fire is a natural part of many California ecosystems, which are well adapted to the presence of fire on the landscape (UCANR, n.d.). The PAL is currently dominated by non-native grasses, noxious weeds, and other invasive plant species that increase fire risk along the roadway and to the surrounding community. Conducting a prescribed burn will not only help restore native vegetation but also

significantly reduce the likelihood of roadside fire ignitions that could spread to adjacent agricultural areas and into surrounding communities.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

4.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

Threshold of Significance: A significant impact would occur if the project results in the conversion or loss of prime farmland, unique farmland, or farmland of statewide importance, or if it leads to a significant reduction in the acreage of a forested area used for timber production.

a – e) Would the project: a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?; or b) conflict with existing zoning for agricultural use, or a Williamson Act contract?; or c) conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?; or d) result in the loss of forest land or conversion of forest land to non-forest use?; or e) involve other changes in the

existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? No farmland or forest/timber lands will be converted as a result of this project. There is no conflict with existing forestry or agriculturally zoned areas related to this project, including land use and/or Williamson Act zoned areas. The project will not involve any other changes in the existing environment which, due to their location or nature, could result in conversion of farmland or forest land to non-agricultural use.

Potential Impact: No impact

Mitigation: None required

4.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	■
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

Environmental Setting

This section addresses potential effects of implementation of the proposed project on ambient air quality and the potential for exposure of people, specifically sensitive receptors, to harmful pollutant concentrations. The section also evaluates the potential for the proposed project to conflict with or obstruct implementation of the applicable air quality plan; to violate an air quality standard or contribute substantially to an existing or projected air quality violation; to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment; or to create objectionable odors that would affect a substantial number of people.

Both the U.S. Environmental Protection Agency (US EPA) and the State of California Air Resource Board (CARB) have established ambient air quality standards for outdoor concentrations of various “criteria pollutants” in order to protect public health. These standards have been defined as the maximum amount of a pollutant that can be present in outdoor air, over a specified period of time, without harm to the most sensitive population’s health. Criteria pollutants for which both EPA and CARB standards have been set include ozone (O_3), carbon monoxide (CO), particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), nitrogen dioxide

(NO_2), sulfur dioxide (SO_2) and lead. In Mendocino County, CARB standards are monitored and enforced by the Mendocino County Air Quality District (MCAQMD).

Smoke produced from the burning of wood and other organic materials contains a complex mixture of harmful gases and fine particles, including $PM_{2.5}$, PM_{10}, carbon monoxide, nitrogen oxides (NO_x), ozone (O_3) precursors, and heavy metals, such as lead, mercury, and arsenic. Prescribed fires, also referred to as *controlled burns*, can significantly affect $PM_{2.5}$ and PM_{10} levels locally and in surrounding areas during and shortly after the burn. However, the degree and duration of the impacts on air quality depend on multiple factors, including the size of the area burned, the amount and type of vegetation being burned, the burning conditions, and the weather patterns during and after the burn. The levels of $PM_{2.5}$ and PM_{10} typically peak during the burning period and may remain elevated for a short time afterward, depending on atmospheric conditions. For example, wind speed and direction can spread smoke over broader areas, affecting air quality at greater distances from the burn site. Temperature and humidity also affect how particles are dispersed or settle out of the atmosphere. The method and timing of the burn and the skill with which it is managed can also affect how much smoke is produced and how it is dispersed.

Discussion

Would the project: a) Conflict with or obstruct implementation of the applicable air quality plan?; or b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? Within Mendocino County, the use of prescribed fire for vegetation management is a permissible practice under MCAQMD Regulation 2, which accounts for planned combustions, such as prescribed burns. Specifically, Rule (b)(4): Open Outdoor Burning – Non-agriculture, allows for open outdoor fires for the disposal of approved combustibles on permissive burn days for right-of-way clearing when conducted under a smoke management plan approved by the MCAQMD. A smoke management plan outlines the acceptable parameters that must be in place before a prescribed burn may occur (e.g., fuel moisture content, wind speed and direction, air temperature, atmospheric humidity, etc.). It will be CalTrans' responsibility to obtain an approved smoke management plan from MCAQMD prior to the project being executed. Under Rule 2-340 of Regulation 2, the MCAQMD also designates certain agencies, including the California Department of Forestry and Fire Protection (Cal Fire), to issue valid Air Quality permits within their area of jurisdiction. The implementation of prescribed burns within the PAL would reduce the risk of unplanned fires, and consequently reduce the risk of high levels of criteria pollutants impacting regional air quality. Mendocino County is currently in compliance (full attainment) for all criteria pollutants.

Potential Impact: No Impact

Mitigation: None required

c) Would the project expose sensitive receptors to substantial pollutant concentrations. Cal Fire and CalTrans would minimize impacts to local and regional air quality by preparing a prescribed fire and smoke management plan for each burn operation describing the burn's objectives, how smoke would be managed and other logistical details, for approval by

MCAQMD (Mitigation Measure **AIR-1**). Moreover, on the burn day, Cal Fire would monitor the conditions to confirm that the burn could proceed, and MCAQMD may send an inspector to monitor smoke production along with Cal Fire personnel. Appropriate staff and firefighting equipment would be deployed to the site for the duration of the prescribed fire and subsequent clean up.

Potential Impact: Less-than-Significant with Mitigation Incorporated

Mitigation: AIR-1

MITIGATION AIR-1: To minimize the impacts of smoke from prescribed burn operations, Cal Fire will prepare a smoke management plan for review and approval by the Mendocino County Air Quality Management District (MCAQMD). Moreover, on burn days, Cal Fire will monitor the conditions to confirm that the burn could proceed as planned, and MCAQMD may send an air quality technician to monitor smoke production along with Cal Fire personnel. Appropriate staff and firefighting equipment would be deployed to the site for the duration of the prescribed fire and subsequent clean up.

d) Would the project result in other emissions adversely affecting a substantial number of people? The impacts from project-generated odors and emissions, including those directly generated from prescribed fire activity, as well as those generated from Cal Fire and CalTrans vehicles during project execution (e.g., carbon monoxide, diesel exhaust and fuel vapors), would be highest near the source and decrease with increasing distance from the project's construction activities. However, given the controlled nature of the project, any emissions and odors would dissipate rapidly into the atmosphere, with their intensity diminishing with increasing distance from the source. The brief duration and rapid dispersal of these emissions and odors would ensure minimal exposure to local populations. Additionally, the project's air quality management plan includes ongoing monitoring and mitigation strategies to address potential air quality impacts effectively.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	■	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Environmental Setting

The suppression of natural fire regimes has significantly impacted California's plant communities, as many of the State's ecosystems have evolved with fire as a regularly occurring form of disturbance. Lack of a natural fire regime has also led to decreased biodiversity, since many California plant species are adapted to, and even dependent on, periodic fires to stimulate their growth, disperse their seeds and facilitate germination. Without fire, invasive plants, which often outcompete native plant species, can alter the composition of local plant communities in favor of highly flammable species. Lack of fire has also led to significant accumulations of biomass, which has heightened the risk of severe wildfires that are much more destructive and harder to control than the lower intensity fires typical of natural fire regimes.

This situation underscore the importance of reintroducing controlled burns as a management tool to restore ecosystem health and reduce the risk of larger and more catastrophic wildfires on the landscape. Regularly scheduled prescribed burns can help to reduce the buildup of combustible vegetation, which decreases the risk and severity of unplanned wildfires. This is crucial for protecting ecosystems as well as human lives and property. Fire can improve the quality of habitat for various wildlife species. By maintaining open areas and encouraging the growth of plants that provide food and shelter, prescribed fire supports biodiversity and sustains populations of different animals. Fire can help reduce the spread of certain plant diseases and

pest infestations, through the burning of diseased plant materials and disrupting the life cycle of harmful pathogens and organisms.

Within the Project Area Limit (PAL), there are multiple plant communities present. In areas further away from the highway, oaks and other hardwoods, such as madrone and laurel, comprise most of the canopy. In other areas, especially immediately near the highway, plant communities are dominated by non-native Mediterranean annual grasses (*Bromus* and *Avena*) and starthistle (*Centaurea solstitialis*). These annual grasses and forbs complete their life cycle within one year and are an extremely flammable fuel during the warm summer months.

There are also multiple watercourses that cross Highway 101 within the PAL. Many smaller intermittent and seasonal watercourses are located in the northern portion of the project area, on what is commonly known as Willits Grade (a.k.a., Ridgewood Grade). Many of these flow under the highway through culverts and exit the highway fill in pipes, which are then funneled back down into the original stream channel (see images). In some cases, riparian vegetation is present (*Juncus, Carex, Salix*) along the banks of these watercourses. Within the Ukiah Valley, a number of large, perennial watercourses feed into the Russian River. Generally, these watercourses are fenced off, which protects the surrounding riparian vegetation. Additionally, some smaller intermittent and seasonal watercourses cross below the Highway in the Ukiah Valley and near Burke Hill. Their inlets and outlets are generally within the CalTrans right of way (ROW) and some have riparian vegetation present.

Discussion

a, b, c) Would the project: a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?; or b) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?; or c) have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

A biological assessment area (BAA) of five miles surrounding the project area limit (PAL) was defined to determine potential project impact on known California Natural Diversity Database (CNDDB) occurrences, as well as to identify other species with the potential to occur, but have no recorded CNDDB observations within the BAA. The result of this query is included in Table 1. In addition, a total of 68 hours was spent surveying the PAL. All plants observed were noted and a complete list of plants found can be found in Table 2. A detailed overview of all sensitive species with a moderate to high likelihood of being found within the PAL can be found in Appendix 3 – Sensitive Species.

Plants

A botanical survey was conducted along the length of the project area during the months of June, July, August and September of 2023. Habitat does exist within the PAL for many of the plants

on the scoping list, however, no special status plants were discovered during field surveys. One observation of Sonoma Sunshine (*Blennosperma bakeri*) was recorded in the CNDDB within the CalTrans ROW along Highway 101, but this plant was not observed during our survey. This plant is an annual, with a blooming period that ranges from March through May. Prior to fuels reduction treatments, additional surveys will be conducted to locate this plant and add appropriate protection measures (Mitigation Measure **BIO-1**). In addition, given the large variety of plant lifecycles within the project area, a final pedestrian survey will be conducted within seven days of each burn to identify and demarcate special status plants that have emerged since the initial botany surveys were completed (Mitigation Measure **BIO-1**).

Wildlife

Trees and shrubs on and adjacent to the PAL provide potential nesting habitat for a variety of nesting birds and raptors. Birds and raptors are protected under the Federal Migratory Bird Treaty Act (50 CFR 10.13). Their nest, eggs, and young are also protected under California Fish and Wildlife Code (§3503, §3503.5, and §3800). In addition, raptors, such as the white-tailed kite (*Elanus leucurus*), are "fully protected" under Fish and Wildlife Code (§3511). Fully protected raptors cannot be taken or possessed (that is, kept in captivity) at any time. Nesting season for birds in California generally occurs between February 1st and July 31st. The migratory bird act will be adhered to during this time period, with appropriately sized ecologically sensitive boundaries placed around active nesting sites (Mitigation Measure **BIO-2**).

The North American porcupine has a wide range of habitats and are found throughout the western United States, most of Canada and south into parts of Mexico. They utilize caves, decaying logs, and hollow trees for dens and shelters. Porcupines are vulnerable due to their low reproductive rates and long gestation. Long summer droughts can reduce their forage. Potential North American porcupine habitat exists within the Project Area and treatment activities would have no direct effect on this habitat; although it may increase forage due to increased plant vigor from burning. During prescribed burning operations, if Cal Fire or the District's biological monitor finds a mammal of special concern within the burn area, the animal will be hazed or otherwise removed from the project area by a qualified wildlife biologist (Mitigation Measure **BIO-3**).

Bees and other insects may also be present within the project area, may be impacted by prescribed fire, but the effects vary depending on several factors such as the timing, intensity, and frequency of the burn, as well as the specific characteristics of the bee species and their habitat. Bees that are directly in the path of a fire are likely to perish if they cannot escape, particularly those in nests or hives located on or near the ground. Fires can destroy the vegetation that provides food (nectar and pollen) and nesting materials for bees. The loss of floral resources can reduce bee populations if alternative resources are not available nearby. Many bees nest in the ground or in woody vegetation. Fires can destroy these nests or alter the microhabitats that certain bee species require for nesting. During burning operations, if an insect nest or hive of species of concern is found within the burn area, then the area will be flagged, and an appropriately sized fire exclusion zone will be established where fire will not be allowed to enter (Mitigation Measure **BIO-4**). However, in the long term, fire can benefit bee populations by stimulating the growth of a diverse array of plant species. Many flowering plants thrive after a

burn due to reduced competition and the nutrient-rich ash that fires leave behind. In addition, post-fire environments often experience a bloom of wildflowers, which can provide abundant food for bees. This can lead to increases in bee population and diversity after an initial decline. Fire can also reduce certain pathogens and parasite loads in the environment, potentially benefiting bee health.

Several sensitive species of fish and/or amphibians were either observed, or have a high likelihood of being present, within the PAL. A 50-foot buffer zone will be applied to all watercourses where fire will not be introduced but will be allowed to naturally burn into ('back into') riparian zones (Mitigation Measure **BIO-5**). 'Backing into' means allowing a fire to spread by moving into the wind or downslope at a slower and less intense rate of spread. This type of fire is less intense and damaging to herbaceous and overstory plant species. All wetlands, seeps and watercourses will have a 25- to 50-foot buffer placed around them, where fire may be allowed to back into, and equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats (Mitigation Measure **BIO-6**).

Potential Impact: Less-than-Significant with Mitigations Incorporated

Mitigations: BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6

MITIGATION BIO-1: Within seven days prior to the execution of each prescribed burn, a survey will be conducted to locate special status plant species that have not completed their annual lifecycle, are perennial, or that otherwise may be harmed by the presence of fire. Identified plants will be flagged and an appropriately sized fire exclusion zone will be established where fire will not be allowed to enter.

MITIGATION BIO-2: Within seven days prior to the implementation of each prescribed burn during the active bird nesting season, February 1st through July 31st, the Cal Fire shall conduct site-specific, pre-construction surveys to determine the presence of nests of legally protected bird species. In addition, construction activities near active nesting locations will be conducted only after the young have fledged, as determined by a qualified wildlife biologist. Such surveys will not be required outside of bird nesting season.

MITIGATION BIO-3: During a prescribed burn, if Cal Fire or the District's biological monitor finds species of concern within the burn area, individual animals will be hazed or otherwise removed from the project area by a qualified wildlife biologist. Burns may be suspended for the amount of time necessary to perform this action.

MITIGATION BIO-4: During a prescribed burn, if Cal Fire or the District's biological monitor finds an insect nest or hive of species of concern (e.g., obscure bumble bee, *Bombus caliginosus*, or the western bumble bee, *Bombus occidentalis*) within the burn area, then the area will be flagged, and an appropriately sized fire exclusion zone will be established where fire will not be allowed to enter.

MITIGATION BIO-5: Watercourses will be given a 50-foot buffer zone where equipment will be excluded, and fire will not be introduced. However, fire will be allowed to spread into these areas when moving into the wind or moving downslope at a slower and less intense rate of spread. All equipment and staging areas shall occur within upland areas and

shall avoid wetland, riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats.

MITIGATION BIO-6: Wetlands and seeps will be given a 25-foot buffer zone where equipment will be excluded, and fire will not be introduced. However, fire will be allowed to spread into these areas by moving into the wind or moving downslope at a slower and less intense rate of spread. . All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? There is some potential for the movement of native, resident wildlife to be impacted during and immediately after prescribed burn operations are completed in a given area. However, these impacts would be short-lived, and wildlife would be able to return to the area once burn operations are complete. In addition, it's likely that post-burn wildlife habitat will improve within much of the project area, so that the long-term benefits will substantially outweigh any short-term disruptions to the movement of wildlife.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

e, f) Would the project: e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?; or f) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? There are no local policies or ordinances protecting biological resources within the project area. There are no provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan within the project area.

Potential Impact: No Impact

Mitigation: None required

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	■	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	■	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	■	☐

Due to the confidential nature of the archaeological investigation report, only summary information is provided herein. Properly credentialed individuals demonstrating a valid need to view the full report may contact the Mendocino County Resource Conservation District (District) to request access to the full report.

Environmental Setting

This section of the CEQA report outlines the environmental setting and cultural resource assessment within the Project Area Limit (PAL) of the Highway 101 Fuel Reduction Project. Cultural resources encompass physical evidence of historical human activities that hold significance for scientific, historic, or religious reasons to diverse groups and communities. These resources typically include artifacts, structures, and historical sites. For this analysis, cultural resources are categorized into prehistoric (also referred to as *archaeological*) resources and historic resources. Prehistoric resources are those that date to before the introduction of writing and are generally associated with Native Americans.

The broader region around the PAL has historical significance due to its association with the Pomo tribes, as evidenced by previous archaeological findings in surrounding areas. However, within the PAL itself, there have been no significant prehistoric discoveries to date. While this does not rule out the presence of cultural materials, previous surveys suggest that any resources within the project's footprint are likely to be minimal.

As part of the project planning process, the District hired a professional cultural resources firm to conduct a cultural resources investigation of the PAL that included a Northwest Information Center (NWIC) database records search, as well as contact with the Native American Heritage Commission (NAHC) and local Native American tribal representatives. A pedestrian field survey was also conducted, which focused on detecting surface evidence of archaeological deposits at several previously recorded archaeological sites in the vicinity of, and adjacent to, the PAL, as well as, in areas identified through background research and analysis of topography and the local environment as having potential to contain archaeological resources. These field surveys were conducted over an eight-day period, on January 14, 15, 28 and 29, and February 10, 11, 21, and 22, 2024.

The confidential resources records and associated survey reports held by the NWIC indicate that approximately 30% of the PAL has been subject to previous cultural resources surveys. As a result of these past survey efforts, three historic period linear features are mapped at the project area boundary. These three non-archaeological linear sites are further disclosed in the accompanying Historical Resources Evaluation Report, which is on file at the District. A total of five previously recorded Native American archaeological sites are located directly adjacent to the PAL, but were found to not enter the surface of the PAL. One historic-period archaeological site borders the PAL on the south end and was also found to not continue into the PAL.

Although limited to surface observations, confirming the locations of these previously recorded cultural sites and determining their potential extent towards and into the PAL was a priority of this investigation. Ethnographic research shows that the project area vicinity was traditionally inhabited by the Central Pomo and Northern Pomo people. The southern terminus of the PAL lies in the territory of the Central Pomo, specifically a tribelet named the Yokayo, and the north end in the territory of the Northern Pomo; specifically, a tribelet named the Masut. No ethnographically described village sites are located within or adjacent to the PAL.

The field survey included both the east and west margins of the highway, extending laterally out to the CalTrans ROW fence between M.P. 17.2 – M.P. 41.3. The center of the highway was not subject to survey efforts. Soils were exposed in road cuts, graded areas, burrowing rodent tailings and other exposures. Constraints included pavement and graded surfaces, rocked slopes, and some areas of dense grasses and other vegetation. A long-handled shovel was used to scrape grass, moss and leaf-litter from the ground surface to expose soils in areas where the surface was obscured. Areas of specific focus were areas of level terrain, terraces adjacent to creeks, and the vicinity of reported archaeological or ethnographic sites. The field survey resulted in the identification and recordation of two new Native American archaeological sites and two isolated Native American artifacts. Each of these four resources was recorded on California Department of Parks and Recreation (CDPR) 523-series archaeological site record forms.

No evidence of the five previously recorded Native American archaeological sites in close proximity to the PAL were identified during the field surveys. Although these sites do not appear to be present within the PAL, it is possible that displaced artifacts associated with these sites are present in non-primary contexts and deeply buried beneath the surface within this vicinity. Several isolated Franciscan chert flakes and two concrete California highway markers were found within the PAL during the field survey, and per the PRC 5024 MOU are exempt from evaluation and were not formally recorded. An archaeological site with a dense artifact scatter including formed tools, numerous pieces of fire-cracked rock, and midden soils was identified adjacent to the PAL. However, since this site was outside of the PAL, it was not recorded during the investigation, but the presence of this site was noted in the final report.

The report supports a finding that historical resources are present in the PAL, but with application and enforcement of standard avoidance conditions and designation of an ESA, the project will result in no adverse changes to historical resources (Public Resource Code 5020.1). In light of the avoidance measures developed in the associated Environmentally Sensitive Area (ESA) Action Plan for this project (site flagging and avoidance), background research, and the completed survey effort of the PAL, it is concluded that there would be little chance of encountering significant buried archaeological sites given the proposed project scope and design.

Although the pedestrian investigation was thorough, it does not preclude the possible presence of small scale or buried archaeological features or artifacts to still be present. It is CalTrans' policy to avoid cultural resources whenever possible. Further investigations may be needed if archaeological sites, features or other phenomena are discovered and cannot be avoided by the project. If any archaeological or historical resources are identified or encountered in the work vicinity, work will stop immediately and District and the CalTrans representatives will be notified. A qualified archaeologist will then be retained to evaluate the site and make recommendations to the District and CalTrans representatives regarding continuance of work. In the event human remains or burials are encountered, all work shall cease, and the Mendocino County Coroner's office and the District's Project Manager shall be contacted; work will not resume until clearance is granted.

Discussion

a, b) Would the project: a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?; or b) cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? Historic and prehistoric archeological sites located within the PAL shall be designated as Environmentally Sensitive Areas (ESAs), and will be appropriately demarcated and avoided during project construction. While the project does not involve extensive ground disturbance, measures are in place to protect any cultural resources that might be encountered. If unexpected artifacts or features are discovered during project execution, activities will be halted to allow for archaeological assessment. The established protocols ensure that any findings are managed sensitively and in accordance with legal requirements.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries? The project involves controlled burns intended to reduce wildfire risk, focusing solely on surface treatments. Given the nature of the activities and the extensive historical research already conducted, these operations are not expected to impact subsurface archaeological resources. Standard procedures are in place to address any unexpected findings appropriately during the project's implementation. In the event of accidental discovery of human remains, the Mendocino County Coroner will be notified, and, if the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) will be notified to identify the Most Likely Descendant (MLD), in accordance with state and federal law. The disposition of the remains will be coordinated between the District, the County Coroner, NAHC, MLD and the archaeological consultant.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

4.6 ENERGY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	■

Threshold of Significance: A significant impact would occur if a project uses a substantial amount of energy in ways that are inefficient, wasteful or involve an unnecessary use of energy.

Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

While inherently consuming energy during its execution, the Highway 101 Fuel Reduction Project is designed to be a preventive measure that would reduce the potential for uncontrolled wildfires within and around the PAL. Energy used in the project would include fuel for vehicles and equipment necessary for the controlled ignition and management of the burn area. However, this consumption would be substantially less than the energy needed to support emergency operations in the event of a wildfire, which would likely involve the extensive use of firefighting equipment, aerial resources, and emergency response vehicles over a prolonged period of time.

Moreover, prescribed burns are planned to optimize efficiency and minimize waste. The strategic use of resources in controlled burns is targeted and limited to achieving specific ecological and fire prevention objectives, thereby reducing the overall energy footprint compared to reactive wildfire suppression efforts. By managing vegetation and reducing fuel loads in a controlled manner, the project not only prevents the occurrence of larger, more intense fires that are energy-intensive to control, but also contributes to long-term sustainability in land and resource management. Thus, any energy used in the project is an investment toward reducing future, more significant energy expenditures.

Potential Impact: Less-than-Significant impact with proposed project design

Mitigation: None required

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? There are currently no publicly known renewable energy or energy efficiency projects planned within the project area.

Potential Impact: No impact

Mitigation: None required

4.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	■	☐
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	■
ii. Strong seismic ground shaking?	☐	☐	☐	■
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	■
iv. Landslides?	☐	☐	■	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	■
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	■
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	■

Threshold of Significance: A project would be considered to have a significant impact on geology and soils if it either directly or indirectly leads to substantial adverse consequences, including the potential for loss, injury, or death resulting from geological disturbances or soil instability. This includes scenarios where a project is situated on or near a known earthquake fault as identified by the most recent Alquist-Priolo Earthquake Fault Zoning Map or other credible evidence of such a fault, experiences severe seismic ground motions, or is subject to ground failures like liquefaction and landslides. Significant impacts could also arise from substantial erosion, loss of topsoil, or construction on geologic units or soils that are inherently unstable or would become destabilized due to project activities, potentially causing landslides, lateral spreading, subsidence, liquefaction, or structural collapse. Projects on expansive soils, as classified in certain building codes, that pose considerable risks to life or property, or on sites unsuitable for septic systems when no sewer services are available, would also be included. Additionally, a significant impact could be designated if the project were to irreversibly damage a unique paleontological resource or geological feature.

Discussion

Mendocino County is largely underlain by the Franciscan Formation, a geological structure characterized by bedrock that is often hidden beneath thick soil layers and landslides. The Franciscan rocks are notably weak and deformed, leading to extensive weathering and the

accumulation of thick soils above them. These soils, particularly in depressions and on slope sides, are rich in clay and contain weathered rock fragments that can be as large as boulders. The stability of these soils can be compromised when they become saturated, increasing their susceptibility to landslides.

Human activities that alter vegetation cover, slope gradients, and drainage patterns can exacerbate the likelihood of landslides and erosion. Erosion vulnerability is a notable concern throughout Mendocino County, especially where the soils are less dense or weaker. The risk of erosion escalates with slope steepness; for instance, slopes with a 9 percent grade are considered to have a moderate risk of erosion, while those over 15 percent are seen as having a high risk.

The "Soil Survey of Mendocino County, Eastern Part and Southwestern Part of Trinity County, California," published in 1991 by the U.S. Department of Agriculture and Soil Conservation Service in collaboration with other agencies, categorizes the soils into various map units based on their characteristics and erosion risks. This detailed survey helps in understanding and managing the soil-related challenges in the region. The California Geological Survey (CGS) houses the web-based California Earthquake Hazards Zone Application (EQ Zapp), which allows a user to check whether a site is in an earthquake hazard zone (CA DOC, 2024). The California Department of Conservation also houses a general-purpose map viewer that contains layers displaying locations and data related to the California Landslide Inventory (CA DOC, 2015), the Seismic Hazards Program, Earthquake Shaking Potential, Historic Earthquakes, and others.

Prescribed fires, also known as controlled burns, are generally managed carefully to minimize severe ecological impacts, including the risk of substantial soil erosion or loss of topsoil. The controlled nature of these burns usually means that the fire intensity and duration are carefully calibrated to reduce excess vegetation without severely damaging the soil structure. However, prescribed fires can still pose a risk of soil erosion, particularly on steeper slopes or in areas with looser soils. The removal of vegetation, even temporarily, can expose soil to erosion by water and wind until vegetation regrowth stabilizes the soil again.

Impacts to unique geologic features could include material impairment through destruction or alteration, including grading, rock hunting, human encroachment, or permanent covering of the feature.

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i-iv. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and/or landslides?

i. According to EQ Zapp mapping, the PAL does cross the Maacama fault line in multiple areas; however, the project would have no impact on regional seismic activity.

   Potential Impact: No impact

   Mitigation: None required

ii. While the PAL crosses the Maacama fault in multiple areas, the project would have no impact on the amount of seismic ground shaking in the event of an earthquake.

Potential Impact: No impact

Mitigation: None required

iii. Mendocino County has not been evaluated by the California Geological Survey (CGS) and no Liquefaction Zones have been mapped as part of the Seismic Hazards Program. However, the reduction of surface biomass through controlled burning would not be expected to have an impact on ground failure, including liquefaction.

Potential Impact: No impact

Mitigation: None required

iv. Mendocino County has not been evaluated by CGS and no Landslide Zones have been mapped as part of the Seismic Hazards Program. CGS Landslide Inventory mapping has not recorded the presence of landslides within the PAL; however, the CGS Deep-Seated Landslide Susceptibility map does show a high susceptibility of landslides along Ridgewood Grade in the north-end of the PAL, and along Burk Hill in the south-end of the PAL. However, given the project is reducing a limited amount of vegetation and biomass within the relatively narrow CalTrans ROW, the project is expected to have a less-than-significant impact on the risk of landslides within the PAL.

Potential Impact: Less-than-Significant impact with proposed project design

Mitigation: None required

b) Would the project result in substantial soil erosion or the loss of topsoil? The controlled burn would be managed carefully to minimize significant ecological impacts, including the risk of substantial soil erosion or loss of topsoil. The controlled nature of the burn means that fire intensity and duration would be carefully calibrated to reduce excess vegetation without severely damaging the soil structure. The controlled burn would also be managed at a lower intensity, and the timing of burn would be outside the rainy season to limit the potential for erosion. The size of the burn would be relatively small and contained within the CalTrans ROW, and the use of firebreaks would prevent the removal of vegetation and biomass, and thus soil erosion, in biologically sensitive areas (e.g., riparian and wetland areas). Post project monitoring and maintenance of the area burned for signs of erosion or unstable soil would limit the risk of subsequent soil erosion.

Potential Impact: Less-than-Significant impact with proposed project design

Mitigation: None required

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Similar to the above, no landslide zones have been mapped as part of the Seismic Hazards Program. CGS Landslide Inventory mapping has not recorded the presence of landslides within the PAL; however, the CGS Deep-Seated Landslide Susceptibility map does show a high susceptibility of landslides along Ridgewood Grade in the north-end of the PAL, and along Burk Hill in the south-end of the PAL. However, given the project is reducing a limited amount of vegetation and biomass within the

relatively narrow CalTrans ROW, the project is expected to have a less-than-significant impact on the risk of landslides within the PAL.

Potential Impact: Less-than-Significant impact with proposed project design

Mitigation: None required

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? No structures will be built as part of this project and so the Uniform Building Code is not applicable.

Potential Impact: No impact

Mitigation: None required

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water? o structures or septic systems will be built as part of this project.

Potential Impact: No impact

Mitigation: None required

f) Would the project directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature? The geologic structures within the PAL have been extensively modified to accommodate the presence of the Highway 101 roadway, and there will be no further impacts as a result of this project.

Potential Impact: No impact

Mitigation: None required

4.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	■	□
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	■	□

Threshold of Significance: Potentially significant impacts related to greenhouse gas (GHG) emissions would be evaluated based on whether the emissions from a project could substantially increase greenhouse gas levels to a degree that significantly impacts global climate change or

conflicts with any applicable policies or regulations aimed at reducing greenhouse gases. Factors that might contribute to a determination of significant impact include:

- Magnitude of Emissions: This refers to the total amount of GHGs a project is expected to emit. If the emissions exceed a threshold established by a recognized authority (like a regional air quality management district or state guidelines), it could be considered significant.
- Inconsistency with GHG Reduction Plans: If a project's emissions are at odds with greenhouse gas reduction targets or policies set by local, state, or federal plans, such as those outlined in California's AB 32 (the Global Warming Solutions Act), this could also signify a potentially significant impact.
- Cumulative Impacts: The project's incremental contribution to cumulative significant effects, which may be individually limited but cumulatively considerable. This is particularly relevant if the area already has high levels of GHGs or if multiple projects together could lead to substantial cumulative emissions.

Mitigation measures to reduce GHG emissions to less-than-significant levels might include implementing energy efficiency upgrades, utilizing renewable energy sources, reducing vehicle miles traveled, or enhancing carbon sequestration through landscaping and other land-use practices.

Discussion

a) Would the project Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Uncontrolled wildfires release significant amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) into the atmosphere, contributing to global climate change. This project would reduce the total amount of CO_2 and other GHGs released by wildfires because the project will reduce fire risk through the implementation of fuel reduction treatments to maintain effective roadside fuel breaks. The areas surrounding the project are comprised of grasslands, shrublands, oak woodlands, and urban areas – many of which contain dense fuel loads that are highly flammable, and the project is expected to reduce the likelihood of an uncontrolled fire entering these areas from the highway corridor. The project also spans areas classified by Cal Fire as very high, high, and moderate fire hazard severity zones (FHSZ) within the state responsibility area (SRA). The project would reduce the risk of significant wildfire emissions that would be more likely to occur without the fuel reduction treatments occurring. Implementing the treatment activities for this project would produce significantly less atmospheric CO_2 than an average wildfire and would create an opportunity for wildfire to be contained or slowed and more easily controlled. Although project activities will contribute some greenhouse gas emissions to the atmosphere, the resulting reduction in risk from wildfire ignitions, and an increased ability to quickly control an uncontrolled wildfire, will result in a net decrease in overall GHG emissions.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? The project would not conflict with the State of California's plan to reduce atmospheric carbon or greenhouse gas emissions, and is a permissible practice when conducted under a smoke management plan approved by the Mendocino County Air Quality Management District (MCAQMD).

Potential Impact: No impact

Mitigation: None required

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS – Would the project				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	■	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	■	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	■	☐

Threshold of Significance: Potentially significant impacts related to hazards and hazardous materials is generally based on whether a project would create a significant hazard to public health or the environment due to the potential release of hazardous materials during both routine operations and from foreseeable emergency situations; involve the use, storage, or transport of hazardous or acutely hazardous materials, substances, or wastes within proximity (typically one-quarter mile) to sensitive receptors, such as schools, residential areas, or health care facilities; would be constructed on any state or federal list of contaminated or hazardous materials sites (e.g., the Cortese List under Government Code Section 65962.5); would exacerbate existing contaminants or pose new risks to public health or the environment; its location and operation would conflict with local or regional emergency response or evacuation plans, potentially obstructing emergency responses during hazardous materials incidents or natural disasters; would create the potential for an increase in the risk of exposure to hazards, such as from wildland fires, especially if it impedes fire suppression or evacuation efforts, or if it increases the

likelihood of such fires spreading to inhabited areas.

Discussion

California Health and Safety Code (HSC) 25501 defines a "hazardous material" as any material that, "because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment". Title 22 California Code of Regulations Title 22, Division 4.2, Sections 66250 through 69600 gives regulatory authority regarding the transport, storage, and use of hazardous materials to the California Department of Toxic Substances Control (DTSC). Unless specifically exempted, it is unlawful for any person to transport hazardous waste unless the person holds a valid registration issued by DTSC.

Construction activities often involve the use of materials may be classified as hazardous under California law. Commercial or residential operations may also involve the use of hazardous materials, particularly cleaning supplies, batteries, and electronics. Agricultural operations and landscaping may include hazardous materials such as fertilizer and pesticides. The California Environmental Protection Agency (CalEPA) maintains several data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, including:

- **EnviroStor Database:** Managed by the Department of Toxic Substances Control (DTSC), this database includes information on properties with hazardous waste contamination from past or current activities. It identifies sites that are undergoing investigation, cleanup, or have been remediated.
- **GeoTracker Database:** Managed by the State Water Resources Control Board that tracks and provides data on sites that impact or have the potential to impact water quality, including leaking underground storage tanks and cleanups.
- **List of Solid Waste Disposal Sites:** Identified by the Water Board, this list includes sites where waste constituents above hazardous waste levels have been found outside the waste management unit.
- **List of "active" CDO and CAO from the State Water Board:** Includes active Cease and Desist Orders (CDOs) and Cleanup and Abatement Orders (CAOs) that are issued to manage and mitigate violations affecting water quality.
- **CalEPA Regulated Site Portal:** Combines data from several state databases into a single searchable database and map, offering information about regulated sites across California.

The California Department of Forestry and Fire Protection (Cal Fire), under Title 14 of the California Code of Regulations, has established Fire Safe Regulations for certain projects in the State Responsibility Area. In addition to other guidelines, these regulations focus on reducing the risks associated with hazardous materials by stipulating construction, defensible space, and access requirements which can help prevent fires from starting and spreading, particularly in areas prone to wildfires. For example, the regulations mandate clear guidelines for maintaining defensible space around structures, building standards that include the use of fire-resistant materials, and proper access for emergency vehicles, which are critical in areas where hazardous materials might exacerbate fire risks.

Discussion

a, b) Would the project: a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?; or b) create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? The project would include the transport and use of hazardous, flammable liquids, such as gas and diesel for drip torches, and fuels for running fire suppression equipment. However, the transport and use of these liquids would be conducted under stringent regulations and safety protocols designed to minimize the risk of accidents and spills. Transport would be handled by trained personnel using specially designed containers and vehicles, which reduces the likelihood of creating significant hazards. The use of flammable liquids for controlled burns is considered a routine part of prescribed fire management. The controlled nature of their use, including trained personnel and established fire control measures (e.g., containment lines and suppression equipment on standby), significantly mitigates any potential hazards. Disposal issues related to hazardous materials in prescribed burns would primarily concern the proper handling of leftover flammable liquids. Standard procedures for the disposal of such materials would include returning unused fuels to appropriate storage facilities, where they can be reused or disposed of according to environmental safety regulations.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Prescribed fires, also known as controlled burns, are intentionally set to manage and reduce the risk of uncontrolled wildfires. However, these fires can produce hazardous emissions that may adversely affect air quality, particularly for sensitive groups such as school-age children. When organic materials like wood, leaves, and grass burn, the fire releases a mixture of gases and particles into the air. These emissions include particulate matter (PM), carbon monoxide, volatile organic compounds, and nitrogen oxides, which can have various health implications.

Particulate matter, especially $PM_{2.5}$ (particles smaller than 2.5 micrometers), can penetrate deep into the lung tissue and even enter the bloodstream, causing respiratory and cardiovascular issues. Children are particularly vulnerable because their respiratory systems are still developing, and they breathe more air per pound of body weight than adults. Exposure to carbon monoxide from smoke can lead to symptoms like headaches and dizziness. Volatile organic compounds contribute to the formation of ground-level ozone, a major component of smog that can exacerbate asthma and other lung conditions.

Furthermore, the presence of benzene and formaldehyde, both carcinogenic substances found in wood smoke, raises long-term health concerns. Schools situated near areas where prescribed burns occur might experience days with poor air quality, which could necessitate keeping children indoors or limiting physical activities to minimize exposure. It's crucial for fire management teams and local health authorities to monitor air quality and communicate risks effectively to protect sensitive populations such as children during and after prescribed burns. In order to mitigate the risk of hazardous smoke to school age children within one-quarter mile of a

planned prescribed burn area, Cal Fire shall notify the Ukiah Unified School District, the Pinoleville Rancheria, and the Coyote Valley Reservation at least 30-days in advance of prescribed burns planned within one-quarter mile of a school, Rancheria, or Reservation (Mitigation Measure **HAZ-1**).

> **MITIGATION HAZ-1:** In addition to MITIGATION AIR-1, at least 30 days prior to project execution, Cal Fire shall communicate its plans to conduct prescribed burn operations to the Ukiah Unified School District, the Pinoleville Rancheria, and to the Coyote Valley Reservation. In addition, one of the following mitigation strategies shall be implemented:
>
> > **Mitigation Strategy 1:** Cal Fire shall conduct prescribed burn operations at a time when schools within one-quarter mile of the construction site will: 1) not be in session, and 2) children will otherwise not be on campus and potentially exposed to hazardous smoke (e.g., during outdoor sporting events or other outdoor activities).
> >
> > **Mitigation Strategy 2:** Cal Fire shall: 1) notify to the Ukiah Unified School District, the Pinoleville Rancheria, and the Coyote Valley Reservation the day prior to the burn taking place; 2) provide schools and Tribes with guidelines on how to respond if smoke conditions worsen, such as keeping windows and doors closed, using air purifiers, or possibly relocating outdoor activities indoors; 3) ensure that environmental conditions are such that the direction and timing of smoke will limit downwind exposure to schools and Tribes, especially during school hours; 4) keep open lines of communication with local schools and Tribes to help manage concerns and coordinate with school and Tribal activities to minimize exposure.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? The project area is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5.

> **Potential Impact:** No impact
>
> **Mitigation:** None required

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? The project area limit (PAL) comes within 200 feet of the Ukiah Municipal Airport property boundary, and within 1100 feet of the south end of the runway. Mitigations to reduce impacts to less-than-significant levels would include scheduling burns during weather conditions that minimize smoke drift towards the airport, careful monitoring and management of smoke, and close coordination with airport management. It's essential to establish a communication plan to alert the airport about timing and conditions of burns, and have emergency protocols in place to quickly address any smoke intrusion incidents (Mitigation Measure **HAZ-2**). Implementing these

mitigation strategies will help ensure the safety and operational integrity of the airport during the burn.

> **MITIGATION HAZ-2:** As per Federal Aviation Administration (FAA) rule 77-9, at least 45 days prior to project construction, Cal Fire shall submit a completed FAA Form 7460-1 to the FAA, communicating its plan to conduct prescribed burning operations near the Ukiah Municipal Airport. Similarly, Cal Fire shall notify the Ukiah Municipal Airport, in writing, of its plans to conduct prescribed burns along the Highway 101 ROW at least 45 days in advance of project execution taking place within 2 miles of a runway.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Prescribed burns along the Highway 101 corridor can play a vital role in supporting emergency response and evacuation plans by managing vegetation and reducing the fuel load that can contribute to more severe wildfires. By intentionally setting controlled fires under safe conditions, authorities can eliminate excess brush, dead trees, and other flammable materials that might otherwise intensify a wildfire. This proactive measure not only limits the spread and intensity of potential wildfires but also enhances the safety of evacuation routes. For communities located near major highways, this can be crucial during emergency evacuations, ensuring that routes remain open, passable, and less susceptible to the dangers of encroaching fires. Additionally, these controlled burns help maintain clearer visibility and better air quality during a wildfire, aiding both evacuees and emergency responders in navigating safely. Ultimately, prescribed burns along transportation corridors are an essential part of a broader strategy to protect lives and property by mitigating the risk and impact of wildfires on critical escape routes.

> **Potential Impact:** No impact
>
> **Mitigation:** None required

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Project construction will be executed and managed by highly trained Cal Fire personnel. While prescribed burn activities would be carried out with rigorous safety protocols, there is always the risk that the fire could escape containment and move into the surrounding community and/or landscape. Additionally, the production of smoke from the burn can reduce air quality and visibility in surrounding areas, potentially affecting the health of individuals, particularly those with respiratory conditions, and increasing risks associated with vehicle transportation near the burn site.

However, these risks are significantly mitigated by developing and following a smoke management plan (Mitigation Measure **AIR-1**), and the strategic use of containment lines and standby fire suppression equipment. Containment lines are effectively cleared of all flammable materials and may be reinforced to stop the fire's progression, ensuring that the burn does not accidentally extend into adjacent areas. Standby fire suppression equipment, including water trucks, fire extinguishers, and specialized firefighting tools, ensures that any signs of the fire escaping can be swiftly addressed. Having trained personnel ready to respond quickly to any

unexpected changes in the fire's behavior further enhances safety and reduces the likelihood of the prescribed burn affecting nearby areas.

Overall, while the risks of prescribed burns cannot be entirely eliminated, the expertise of Cal Fire personnel, combined with effective containment strategies and the readiness of emergency response equipment, considerably lowers the potential risk to the community. These measures provide a substantial safety net, minimizing the risk of loss, injury, or death resulting from the burn escaping its intended boundaries and making prescribed burns a generally safe and effective vegetation management tool.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	■	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	■	☐
i. result in a substantial erosion or siltation on- or off-site;	☐	☐	■	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	■	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	■	☐
iv. impede or redirect flood flows?	☐	☐	☐	■
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	■
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

Threshold of Significance: Potentially significant impacts related to hydrology and water quality are generally based on whether a project would violate any established water quality standards or waste discharge requirements during both routine operations and foreseeable emergency situations; substantially degrade surface or groundwater quality; substantially decrease groundwater supplies or interfere substantially with groundwater recharge, affecting the sustainable management of the basin. Additionally, significance is evaluated based on whether the project would alter the existing drainage patterns of the site or area in a manner that would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. Other considerations include whether the project is located in flood hazard, tsunami, or seiche zones and could risk the release of pollutants due to project inundation; or if the project's location and operation would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Each of these aspects would be examined to determine if the project poses new risks to public health or the environment, or exacerbates existing water-related issues.

a, c, e) Would the project: a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?; c) substantially alter the existing drainage pattern of the site or area, including through the

alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in a substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?; or e) conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Conducting a prescribed fire can present several risks to nearby streams and stormwater drainage systems. The removal of vegetation during a burn can leave soil exposed and more susceptible to erosion. When it rains, this eroded soil can wash into streams and stormwater systems, increasing sedimentation. This sediment-laden runoff can degrade water quality and harm aquatic life. Additionally, the increased runoff can enhance the volume and speed of water flowing into drainage systems, potentially overwhelming them and leading to flooding. Burning can also release various nutrients and chemicals into the air and soil, which may settle on water surfaces or be washed into streams, impacting water quality and aquatic life. These substances can then leach into waterways, increasing nutrient levels, particularly nitrogen and phosphorus. This can lead to eutrophication, a process that encourages the excessive growth of algae and aquatic plants, depleting oxygen levels in the water and harming fish and other aquatic organisms. The removal of shading vegetation along streambanks due to fire can also increase water temperatures. Warmer water holds less oxygen, which can stress aquatic life, especially species sensitive to temperature changes, such as trout. In areas with steep terrain, the removal of vegetation can lead to an increased risk of debris flows during heavy rains. These flows can carry large amounts of material, including rocks, soil, and charred wood, into waterways, potentially causing damage to habitats and infrastructure.

To address these risks, all prescribed burning operations would take place during the dry season when the risk of post-treatment erosion from rainfall is at its lowest. No heavy equipment would be used on the project, outside of emergency situations, such as a fire escape. Only handlines and/or wet-lines would be used so as to minimize soil disturbance and effects to water quality. The prescribed fire would be managed at a low to moderate severity, so there would be a lower risk of soil or root damage. In addition, much of the vegetation in the project area is comprised of annual grasses, which are well adapted to foliar disturbances such as grazing or fire, and tend to regrow rapidly at the beginning of the rainy season.

Buffer zones of 50 feet would be applied to all watercourses where fire will not be introduced but will be allowed to naturally burn into (‘back into’) riparian zones (Mitigation Measure **BIO-4**). ‘Backing into’ means allowing a fire to spread by moving into the wind or downslope at a slower and less intense rate of spread. This type of fire is less intense and damaging to herbaceous and overstory plant species, so the risk of significant impacts to riparian vegetation would be low.

All wetlands, seeps, future water TBMP’s and watercourses will have a 25- to 50-foot buffer placed around them, where fire may be allowed to back into with the exception of TBMP’s where fire will not be introduced to the area.(Mitigation Measure **BIO-5**). All staging areas for vehicles and equipment shall avoid watercourses and wetland, riparian, and stream channel

habitats. Refueling of vehicles and equipment shall occur on existing roads and turnouts to the extent feasible, and at least 100 feet from watercourses.

Potential Impact: Less-than-Significant with Mitigations Incorporated

Mitigations: BIO-4, BIO-5

MITIGATION BIO-4: Watercourses will be given a 50-foot buffer zone where equipment will be excluded, and fire will not be introduced. However, fire will be allowed to spread into these areas when moving into the wind or moving downslope at a slower and less intense rate of spread. All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats.

MITIGATION BIO-5: Wetlands, and seeps will be given a 25-foot buffer zone where equipment will be excluded, and fire will not be introduced. However, fire will be allowed to spread into these areas by moving into the wind or moving downslope at a slower and less intense rate of spread, with the exception of TBMP's where fire will be excluded but weed whacking and hosing down of the area before a prescribed fire event is scheduled is allowed. All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

A prescribed fire, such as the one being planned along the Highway 101 corridor, would be carefully managed and would be unlikely to decrease groundwater supplies or substantially interfere with groundwater supplies or groundwater recharge. Such controlled burns are specifically aimed at removing excess vegetation and reducing surface fuel loads, without significantly altering the soil structure or hydrological characteristics that influence groundwater levels. The transient heat from the fire typically does not penetrate deeply enough into the soil to disrupt groundwater recharge processes. The project would be carefully planned to avoid impacting critical areas essential for groundwater recharge, such as nearby wetlands and riparian zones. This careful planning ensures that key hydrological features around the highway remain intact and effective in supporting groundwater sustainability.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? The majority of the project would be constructed in areas of with no, or very low, flood risk (96.5%); and while the remaining 3.5% of the project area is subject to a 1% annual chance of flooding, conducting the burn outside the rainy season significantly mitigates the risk of flooding and the associated release of pollutants due to inundation. No portion of the project is located within a tsunami or seiche zone.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	□	□	□	■
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	□	■

a) Would the project physically divide an established community? The project is solely focused on reducing vegetation fuel loads within the CalTrans Highway 101 right of way, and would not physically divide an established community.

Potential Impact: No impact

Mitigation: None required

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Indeed, the objective of using prescribed fire to reduce vegetative fuel loads along the proposed section of Highway 101 is to reduce the likelihood of an uncontrolled wildfire in the Ukiah Valley region.

Potential Impact: No Impact

Mitigation: None required

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

a, b) Would the project: a) result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?; or b) result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? The objective of the project would be solely focused on reducing vegetative fuel loads along the proposed section of Highway 101 to reduce the likelihood of an uncontrolled wildfire in the Ukiah Valley region. Implementation of the project would neither affect existing mineral resources, as minerals would not be extracted, nor result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. Therefore, there would be no impact.

Potential Impact: No Impact

Mitigation: None required

4.13 NOISE

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
NOISE -- Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	☐	☐
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☐	■
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing, or working in the project area to excessive noise levels?	☐	☐	☐	■

Threshold of Significance: A significant adverse impact would occur if the project would generate a substantial temporary or permanent increase in ambient noise levels above those

established in the local general plan or noise ordinance; or if the project would generate ground-borne vibration or noise; or for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.

a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? The project would be conducted along an existing highway, where ambient noise levels are already elevated due to regular traffic, so the additional noise generated by the project is expected to be negligible. However, because project activities may be conducted at night in some areas (to limit traffic impacts), there is the potential for higher than normal nighttime ambient noise levels resulting from the presence of fire trucks, water-tenders, and other heavy equipment used at the project site. Therefore, project areas within the City of Ukiah boundary, or in areas outside the City of Ukiah boundary, but in close proximity to urban housing, the engines on heavy equipment such as fire trucks and water-tenders shall be shut off (i.e., not left idling), unless needed to construct the project (Mitigation Measure **NOISE-1**)

Potential Impact: Less-than-Significant with Mitigation Incorporated

Mitigation: NOISE-1

MITIGATION NOISE-1: Internal combustion engines will be equipped with a muffler type recommended by the manufacturer. Equipment and trucks will utilize the best available noise-control techniques (e.g., engine enclosures, shrouds, intake silencers, ducts, etc.) whenever feasible and necessary. In project areas located within the City of Ukiah boundary, or in areas outside the City of Ukiah boundary, but in close proximity to urban housing, the engines on heavy equipment such as fire trucks and water-tenders shall be shut off (i.e., not left idling), unless needed to construct the project.

b, c) Would the project result in: b) the generation of excessive ground-borne vibration or ground-borne noise levels?; or c) for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing, or working in the project area to excessive noise levels? Given the project would be conducted along an existing highway, where ambient noise levels are already elevated due to regular traffic, the additional noise generated by the project is expected to be negligible, and would have no impact on people working or residing around the Ukiah Municipal Airport. The project is not expected to generate excessive ground-borne vibrations or noise.

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a, b) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?; or Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? The purpose of the project is to reduce the risk of human-caused ignitions within the CalTrans Highway 101 ROW through the implementation of a series of prescribed burns. None of the activities required to construct the project would impact growth or existing house. Therefore, there would be no impact to the current population or to housing within or around the project area.

Potential Impact: No impact

Mitigation: None required

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	■
Fire protection?	☐	☐	☐	■
Police protection?	☐	☐	☐	■
Schools?	☐	☐	☐	■
Parks?	☐	☐	☐	■

a) Would the project result in substantial adverse physical impacts associated with fire protection, police protection, schools or parks? The purpose of the project is to reduce the risk of human-caused ignitions within the CalTrans Highway 101 ROW through the implementation of a series of prescribed burns. None of the activities required to construct the project would result in adverse physical impacts with new or existing governmental facilities, the need for new or physically altered governmental facilities, or affect the response times or other performance objectives for any of the public services, such as fire, police, schools or parks. Therefore, there would be no impact from the project as designed.

Potential Impact: No impact

Mitigation: None required

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION – Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■

a, b) Would the project: a) increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?; or b) does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? The purpose of the project is to reduce the risk of human-caused ignitions within the CalTrans Highway 101 ROW through the implementation of a series of prescribed burns. None of the activities required to construct the project would result in an increase the use of existing neighborhood or regional parks or other recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, there would be no impact from the project as designed.

Potential Impact: No impact

Mitigation: None required

4.17 TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC -- Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	□	□	■	□
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	□	□	■	□
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	■	□
d) Result in inadequate emergency access?	□	□	□	■

Discussion

a) Would the project Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? Project activities will occur at night, during low traffic periods to avoid significant impacts to traffic along Highway 101 and adjacent public roads. However, there is the potential for slow/delayed traffic along the Highway 101 corridor during active project operations. There is also some potential for increased traffic on adjacent public roads as a result of project implementation, as some motorists may attempt to navigate around the project area. This increase in traffic will be minor and insignificant as the regional roads have been designed to accommodate the

anticipated level of traffic.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)? Section "b" of CEQA Section 15064.3 establishes specific criteria for analyzing the transportation impacts of projects in terms of vehicle miles traveled (VMT). For projects involving land development, the primary metric for assessing transportation impacts is the change in VMT. If a project increases VMT above a certain threshold, it might be considered to have a significant transportation impact. However, there are two key presumptions to simplify the analysis:

1. Projects located within one-half mile of a major transit stop or along a high-quality transit corridor are generally presumed to cause a less than significant transportation impact.
2. Projects that result in a net decrease in VMT compared to existing conditions are also presumed to have a less than significant transportation impact.

For projects that are specifically transportation-related (such as new roads, transit lines, or bicycle paths), the focus is also on the change in VMT. Projects that reduce or do not impact VMT are presumed to cause a less than significant transportation impact, while for projects that increase roadway capacity (such as adding lanes to a highway), agencies have the discretion to determine the appropriate metrics for assessing transportation impacts. This is particularly relevant in cases where increasing roadway capacity might initially seem contrary to reducing VMT, but could be justified in specific contexts or based on detailed traffic analysis.

The purpose of the proposed project is to reduce the risk of human-caused ignitions within the CalTrans Highway 101 ROW through the implementation of a series of prescribed burns. As proposed, it would be unlikely that the project would result in an increase in VMT, other than a limited potential for motorists to attempt to bypass the project area during construction. However, any increase in VMT would be limited in distance and temporary in nature.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Fires, even controlled ones, emit smoke, which can obscure motorist visibility when conducted alongside a street or highway. Motorist may also be distracted by the burn or by the activities of the crews conducting the prescribed burn, which cause them to slow in the project area.

In addition to conducting project activities at night, when traffic volume is low, CalTrans would be alerting motorists approaching the project site that a controlled burn is in progress, and to expect a potential reduction in visibility and the likelihood of slow traffic and potential delays. These are standard operating procedures for CalTrans, and therefor do not require additional mitigations.

In addition, by following the defined smoke management plan, Cal Fire would conduct burn operations during weather conditions that facilitate the dispersion of smoke away from sensitive areas such as roadways. This might include conducting burns during times when prevailing winds carry smoke away from the highway, or during cooler times of the day when atmospheric conditions are less likely to push smoke downward, where it could impair driver visibility. Therefore, the project, as proposed, should not cause a significant hazard to motorists.

Potential Impact: Less-than-Significant Impact with proposed project design

Mitigation: None required

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES –. Would the project:				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	■
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☐	■
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	■

The reader is referred back to Section 4.5 CULTURAL RESOURCES for an in-depth discussion of the District's assessment of the potential impacts on Tribal Cultural Resources.

Discussion

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i. listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or ii. a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1.

In preparing for this Initial Study, the District's consulting archeologist sent a written correspondence to the Native American Heritage Commission (NAHC) requesting a search of

the Sacred Lands Inventory File. The NAHC responded with the results of the Sacred Lands File Search and recommended a list of 18 individuals and organizations who might have knowledge of Tribal Cultural Resources in the project area. A letter was then sent to each of the 18 individuals and organizations describing the project's goals and objectives, the proposed project methodology (i.e., the use of prescribed fire), and the project's proposed boundary. No responses were received as a result of this outreach.

This notwithstanding, all prehistoric archeological sites located within the PAL shall be designated as Environmentally Sensitive Areas (ESAs), and will be appropriately demarcated and avoided during project construction. While the project does not involve extensive ground disturbance, measures are in place to protect any cultural resources that might be encountered. If unexpected artifacts or features are discovered during project execution, activities will be halted to allow for archaeological assessment. The established protocols ensure that any findings are managed sensitively and in accordance with legal requirements.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

4.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	■
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	■
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	■

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? Although not explicitly address in the question, power transmission line poles are present within the project area boundary. During project execution, powerline poles and towers will be provided buffers appropriate for their size, from which fire will be excluded.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

b – e) Would the project: b) have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?; or c) result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?; or d) generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?; or e) comply with federal, state, and local management and reduction statutes and regulations related to solid waste? While some water would be used to extinguish the prescribed fire, in most cases, a correctly executed controlled burn will self-extinguish. Any water needed to manage the burn or otherwise execute the project will be brought in by Cal Fire, and will not be sourced from the project site. No new solid waste will be generated by the project, and all federal, state and local laws and regulations will be adhered to. Therefore, there will be no project impacts on water supplies or on solid waste management.

Potential Impact: No impact

Mitigation: None required

4.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
WILDFIRE -- Would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	■
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	■	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? The prescribed burn project is anticipated to positively influence emergency response and evacuation plans by significantly reducing the fuel load along critical evacuation routes such as Highway 101. By strategically removing excess vegetation and potential fire hazards, the project enhances the safety and efficiency of emergency operations.

This proactive approach not only aligns with, but also supports the objectives of local emergency response plans by mitigating the risk of severe wildfires that could otherwise block or hinder evacuation routes during emergency situations. The careful planning and execution of the burn, particularly through collaboration with agencies like Cal Fire, ensure that the project not only complies with, but enhances existing emergency protocols; thereby providing a clearer and safer path for evacuation and emergency access during unplanned wildfire events.

Potential Impact: Beneficial impact

Mitigation: None required

b) Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? The project is designed to mitigate, rather than increase the risks of wildfire due to factors such as slope, prevailing winds, and other environmental conditions. The selection of the timing, location, and techniques for the burn take into account prevailing wind patterns and topographical features to control and minimize the spread of fire. While there is an inherent risk that a controlled burn could escape containment, this risk is substantially lowered through rigorous adherence to safety protocols and the use of advanced firefighting technology and strategies by highly trained personnel from Cal Fire. The implementation of a thorough smoke management plan further mitigates the risk of pollutant exposure from potential wildfire spread, ensuring that the burn does not contribute to harmful air quality impacts. Overall, the project is expected to reduce the cumulative wildfire risk in the area, thereby decreasing the potential for uncontrolled wildfire spread and exposure to associated pollutants.

Potential Impact: None, to beneficial impact

Mitigation: None required

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Power transmission line poles are present within the project area boundary. During project execution, powerline poles and towers will be provided buffers appropriate for their size, from which fire will be excluded.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? Human activities that alter vegetation cover, slope gradients, and drainage patterns can exacerbate the likelihood of landslides and erosion. Erosion vulnerability is a notable concern throughout Mendocino County, especially where the soils are less dense or weaker. The risk of erosion escalates with slope steepness; for instance, slopes with a 9 percent

grade are considered to have a moderate risk of erosion, while those over 15 percent are seen as having a high risk. Within the project area, 57 percent is classified as highly, or moderately, susceptible to landslides; however, these all occur outside the population centers of Ukiah, Calpella, and Redwood Valley, and so the risk is low to the general population. In addition, prescribed fires are managed carefully to minimize severe ecological impacts, including the risk of post-fire slope instability, landslides, or changes in drainage. The controlled nature of these burns usually means that the fire intensity and duration are carefully calibrated to reduce excess vegetation without severely damaging the soil structure and root systems that help hold soils together. Taking all of these factors into consideration, the likelihood that the project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, is less than significant given the project's design.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	□	□	■	□
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	□	□	■	□
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	□	□	■	□

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

This Initial Study has found that the *Highway 101 Fuel Reduction Project*, as designed, does not have the potential to substantially degrade the quality of the environment, nor does it threaten the habitat of fish or wildlife species to a significant extent. The project is designed with several

mitigation measures to ensure that impacts on biological resources are minimized. The prescribed burn is specifically managed to enhance habitat conditions by reducing fuel loads, which decreases the risk of uncontrolled wildfires, thereby protecting the habitat within the project area rather than degrading it. The mitigation measures include conducting pre-burn surveys to protect special status species, maintaining buffer zones around sensitive areas, and conducting pre-burn surveys to protect sensitive flora and fauna. These measures ensure that the project will not cause fish or wildlife populations to drop below self-sustaining levels or substantially restrict the range of rare or endangered species.

Furthermore, the project does not pose a threat to eliminate any plant or animal communities. Instead, it aims to improve ecosystem health and resilience by restoring the natural fire regime, which many of California's native species rely on for their lifecycle processes. The careful planning and execution of the burn, with specific considerations for prevailing winds and slope, significantly minimize the risk of fire escape, thus preventing any exacerbation of wildfire risks that could otherwise expose project occupants or the environment to elevated pollutant concentrations or the spread of uncontrolled wildfires. Regarding historical or prehistoric impacts, the project does not eliminate or adversely affect any significant examples of major periods of California history or prehistory. Initial surveys and ongoing monitoring ensure that if any cultural resources are discovered, they are protected through established protocols, ensuring no significant impact on historical resources.

Overall, the project's design and embedded mitigation strategies effectively ensure that its implementation will not substantially degrade the environment or adversely affect sensitive biological or cultural resources. The Initial Study concludes that with the proposed project design and mitigations incorporated, the impacts are less than significant, negating the need for a Mandatory Finding of Significance.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

It is important to assess whether the impacts of this project, while individually limited, are cumulatively considerable when viewed in conjunction with past, current, and probable future projects in the area.

The *Highway 101 Fuel Reduction Project* is designed to improve ecosystem health and reduce wildfire risk along the Highway 101 corridor, which represents an individually limited impact with specific targeted outcomes. The scope of the project is confined to controlled burns that are meant to reduce fuel loads in a carefully managed manner. These actions, in themselves, do not lead to significant long-term environmental changes but instead aim to restore natural fire regimes and enhance ecological resilience. When considering the cumulative effects of the project in conjunction with other similar projects in the region, both past and anticipated, the overall impact tends to be synergistic in terms of wildfire risk reduction and habitat

improvement. Many regions in California implement prescribed burns as part of their long-term fire management and ecosystem restoration strategies. As such, when combined with these efforts, the project is likely to contribute positively to regional goals of reducing severe wildfire incidences and promoting biodiversity. In addition, the Project includes comprehensive mitigation measures designed to minimize any negative impacts on air quality, water resources, biological habitats, and the local community. These measures ensure that any potential cumulative environmental impacts are effectively managed and mitigated.

Therefore, based on the information in the Initial Study and the nature of prescribed burns as a fire management tool, the impacts of the project are not considered cumulatively considerable. Instead, they align with and support ongoing environmental management and wildfire prevention efforts across the state, which collectively aim to enhance, rather than degrade, environmental quality and safety over time. This alignment supports the conclusion that the incremental effects of this project are not considerable when viewed in the broader context of similar environmental management activities.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The *Highway 101 Fuel Reduction Project* involves the use of prescribed burns to reduce flammable fuel loads and mitigate wildfire risks along the Highway 101 corridor. From a direct standpoint, the implementation of controlled burns is carefully planned and managed to minimize smoke and potential air quality impacts, which are the most likely direct effects on human health and wellbeing. The project's smoke management plan includes strategies such as choosing optimal weather conditions for burns, to ensure project generated smoke disperses away from populated areas and major roadways, thus protecting the health of nearby communities and motorists.

Indirectly, the project contributes positively to human safety by significantly reducing the risk of uncontrolled wildfires, which pose a significant threat to residential areas and human lives. By managing vegetation and decreasing available fuel, the project decreases the likelihood and potential severity of future wildfires, enhancing safety for residents and property in the surrounding areas. The project does not involve the use of hazardous materials or processes that would pose other health risks to the community, and the potential noise from the operation, mainly from machinery used during the burn, would be carefully managed to limit the impacts to local residents.

Therefore, considering the controlled nature of the burn, the proactive mitigation strategies employed, and the overall benefits in terms of enhanced safety from wildfires, the project is not expected to cause substantial adverse effects on human beings. The benefits of reducing wildfire risk and improving ecological health in the area contribute to a net positive impact on human safety and health, supporting the conclusion that environmental effects will not be substantially adverse.

Potential Impact: Less-than-Significant with proposed project design

Mitigation: None required

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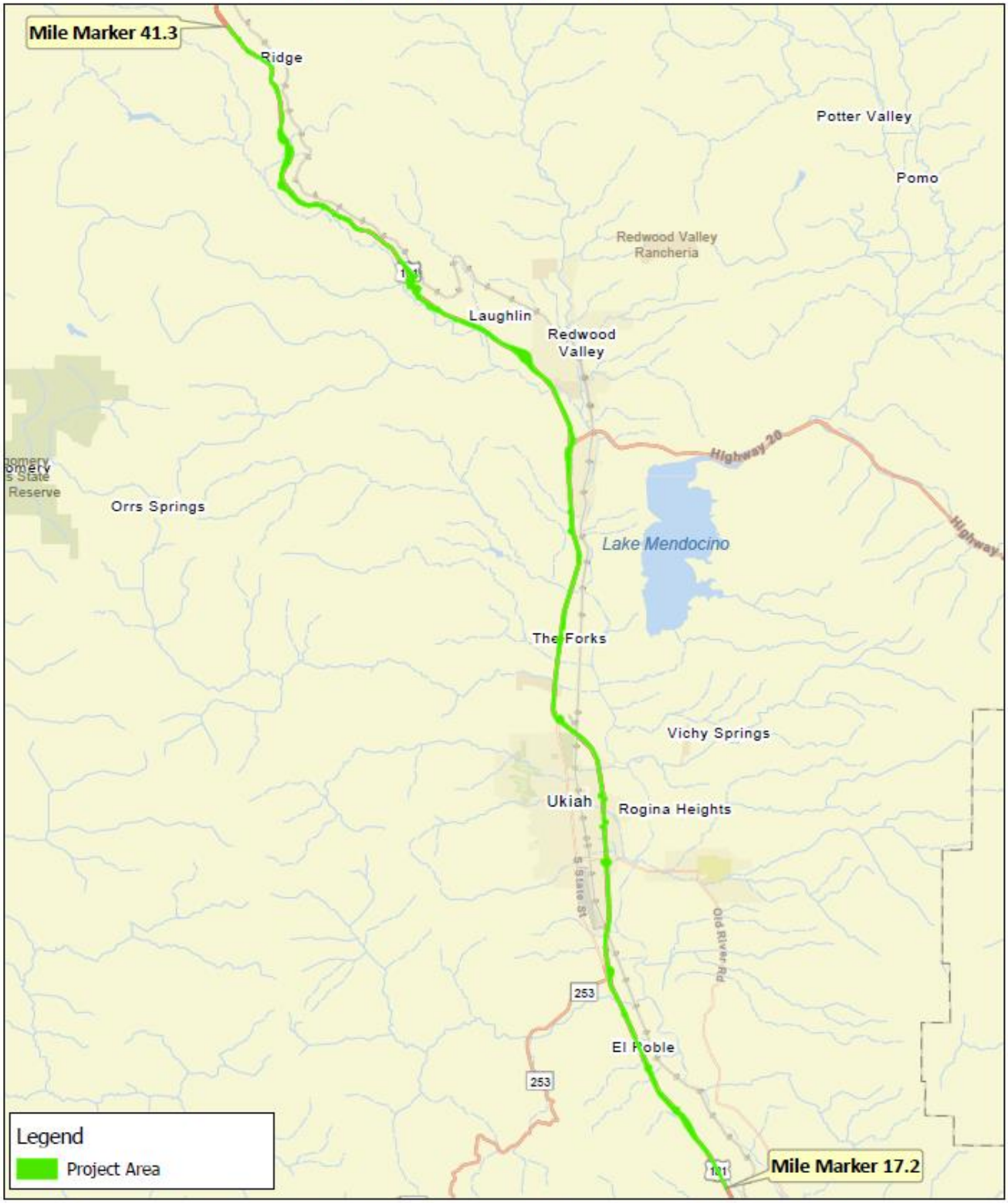
Appendix 1 - Project Maps

Highway 101 Fuel Reduction Project Area



Resource Conservation District Mendocino County

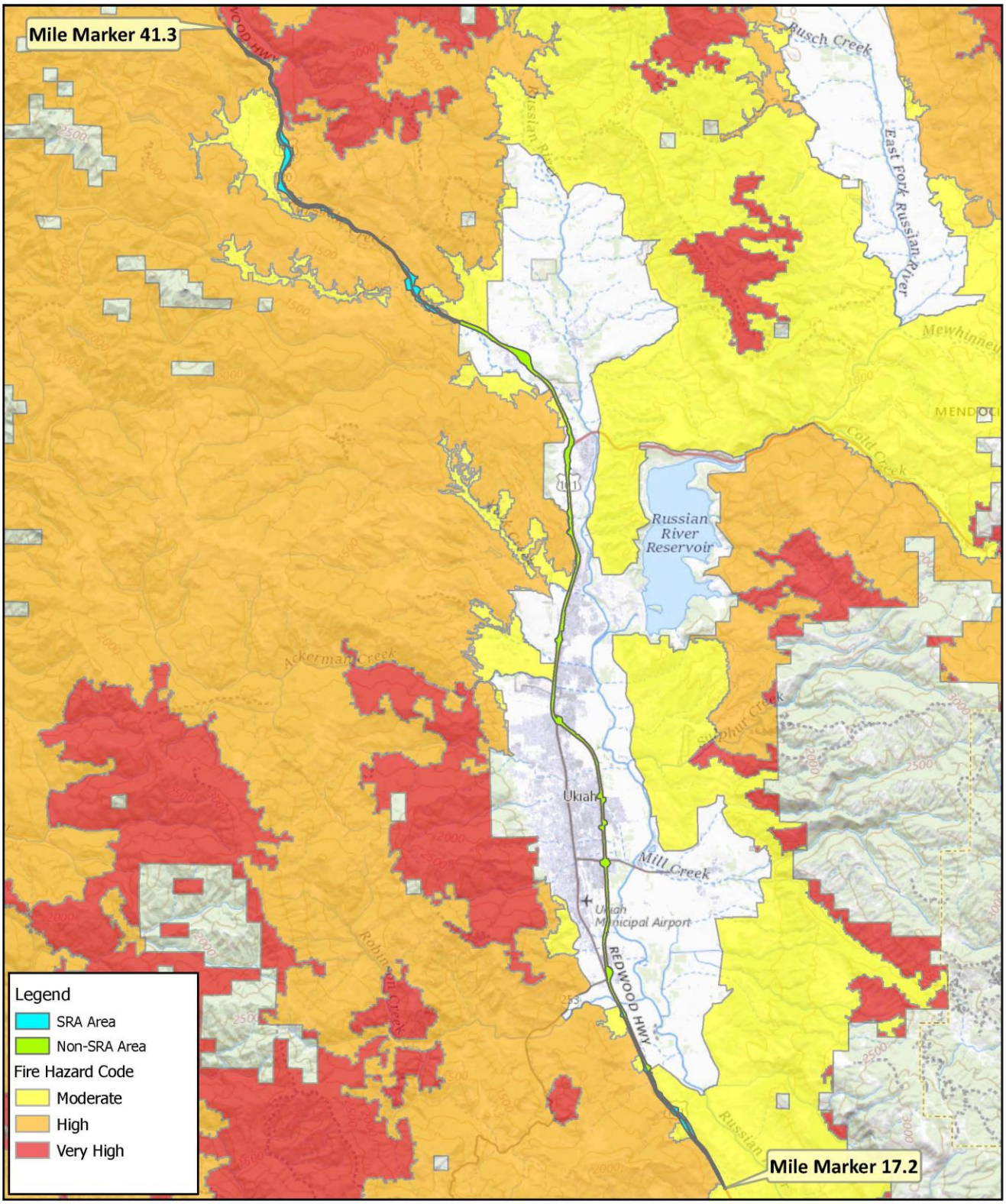
Disclaimer Language:
Maps prepared for informational purposes only. Image depicts a combination of publicly available data and observations made of on-the-ground conditions at the time of the site visit. No liability is assumed for the accuracy of the information or data displayed. All lines are approximate.

0 2.5 5
Miles

Scale: 1:137,000 1 inch = 2.2 miles March 6, 2024

N

Highway 101 Fuel Reduction Project - SRA Fire Severity Zones



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Scale: 1:137,000 1 inch = 2.2 miles Feb 21, 2024

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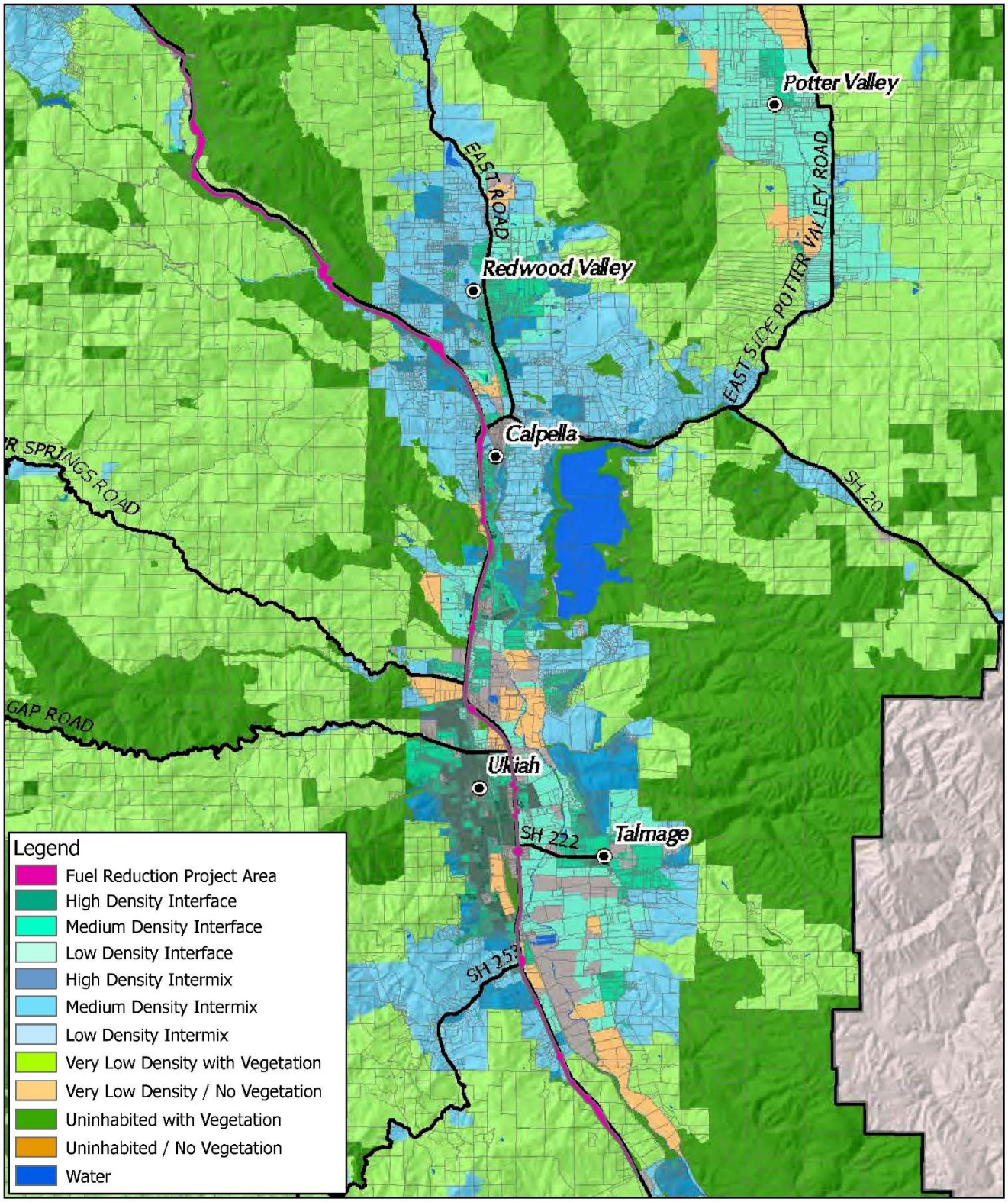
Highway 101 Fuel Reduction Project - Wildland-Urban Interface Map



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Miles

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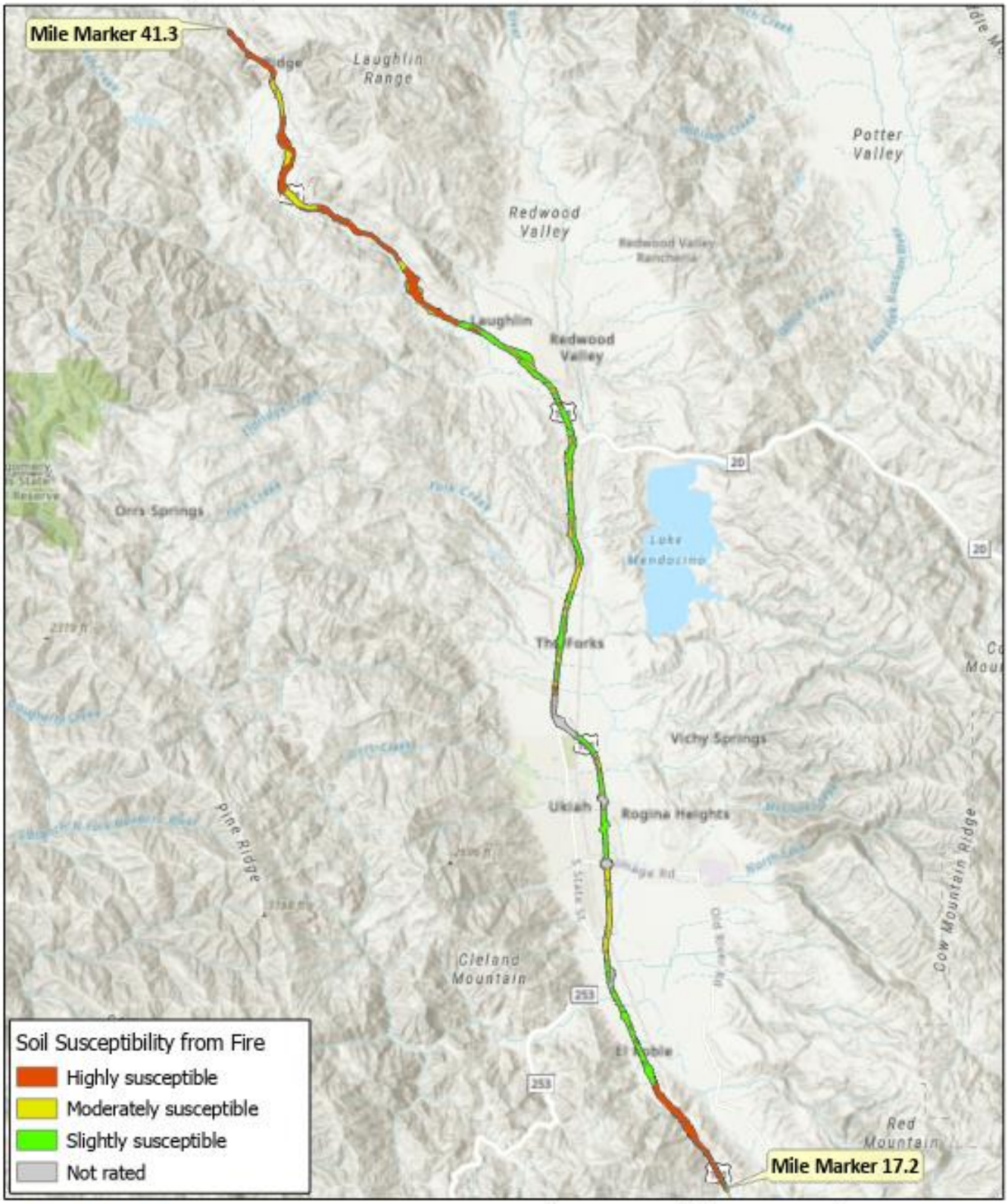
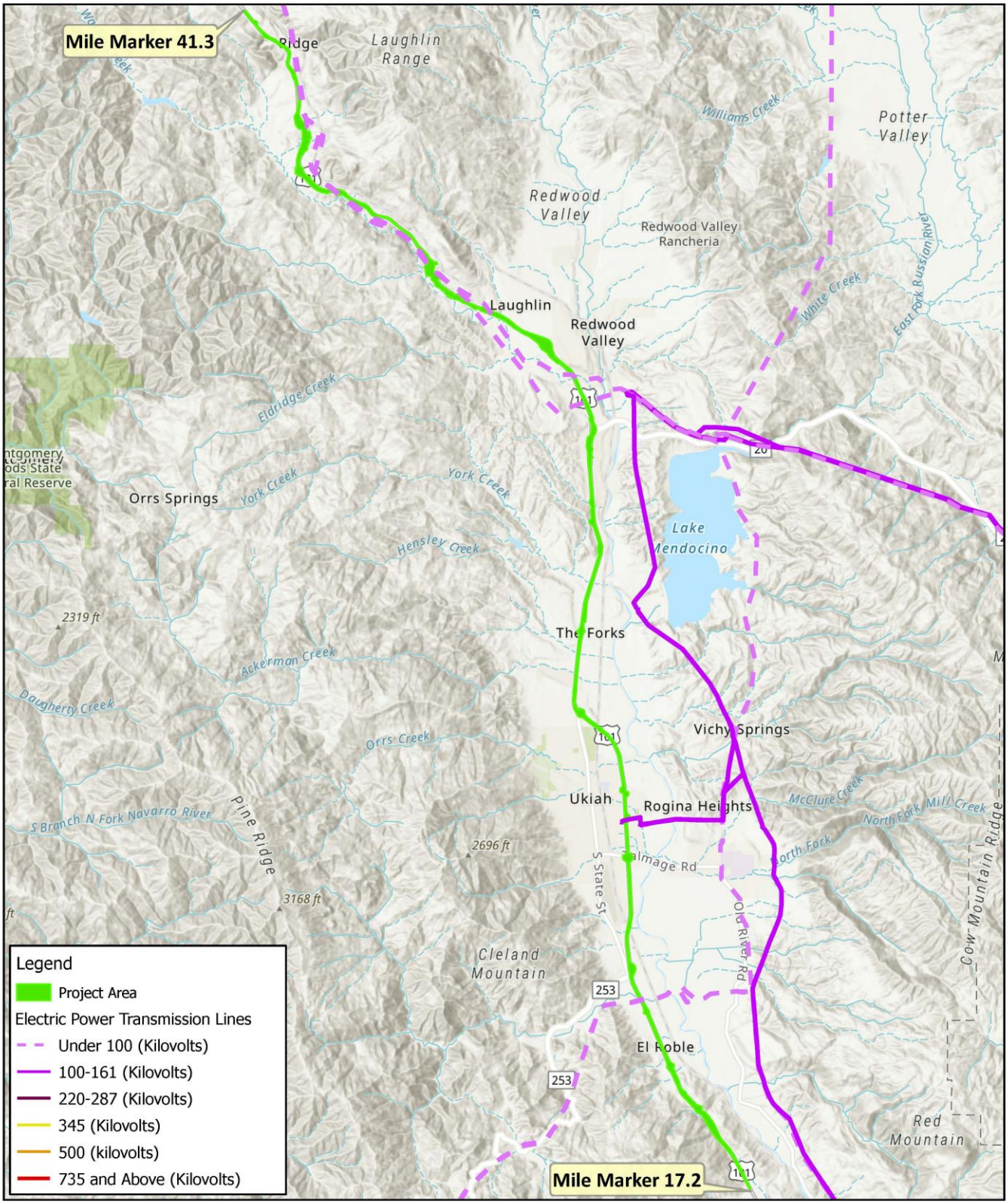
Scale: 1:137,000 1 inch = 2 miles Feb 21, 2024

Highway 101 Fuel Reduction Project - Soil Susceptibility to Fire



Highway 101 Fuel Reduction Project - Electrical Power Transmission Lines



Resource Conservation District Mendocino County

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Scale: 1:135,000 1 inch = 2 miles March 8, 2024

Appendix 2 - Tables

Table 1. Highway 101 Fuel Reduction Project – Biological Assessment Area* Scoping List

Scientific Name	Common Name	Taxon Group	Federal	State	SRANK	CRPR	CDFW Status**	Other Status***	Blooming Period	Habitat	Nearest Location to Project Area	Potential Habitat Present Within Project Area?
Alisma gramineum	grass alisma	Monocots	None	None	S3	2B.2			ɪr) May- Jun	Freshwater marsh. 125 - 1735 m.	3.1 miles north of the northern terminus of the project area near the cemetery in Willits. The last observation date was 2006.	Unlikely
Ammodramus savannarum	grasshopper sparrow	Birds	None	None	S3		SSC			Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	3.9 miles southeast of the southern terminus of the project area on the UC Hopland Research Extension Center. The last sighting date was 1991.	High
Arborimus pomo	Sonoma tree vole	Mammals	None	None	S3		SSC			North coast fog belt from Oregon border to Sonoma County. Feeds almost exclusively on Douglas-fir needles. .	Less than .25 miles from the northern terminus of the project area. The last sighting was in 1991.	Unlikely
Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	Dicots	None	None	S2	1B.1		BLM_S	Feb-Apr	Rocky, serpentine sites. Slopes and ridges. 485-1070 m.	.5 miles west of the southern terminus of the project area (south of Hwy 258 and west of Hwy 101). The only source of information for this site is a 1918 Jepson	High
Blennosperma bakeri	Sonoma sunshine	Dicots	Endangered	Endangered	S1	1B.1			Mar-May	Vernal pools and swales. 10-290 m.	A population occurs within the project area approximately ½ mile north of Highway 101 and Reeves Canyon Road. Last observed in 2019.	Present
Bombus caliginosus	obscure bumble bee	Insects	None	None	S1S2			IUCN_VU		Openings with diverse floral habitats.	5 miles southeast of the southern terminus of the project area. Last sighting in 1972.	High

Scientific Name	Common Name	Taxon Group	Federal	State	SRANK	CRPR	CDFW Status**	Other Status***	Blooming Period	Habitat	Nearest Location to Project Area	Potential Habitat Present Within Project Area?
Bombus occidentalis	western bumble bee	Insects	None	Candidate Endangered	S1			UCN_VU; USFS_S		Openings with diverse floral habitats.	3.8 miles north of the northern terminus of the project area. The last sighting in 1958.	High
Brasenia schreberi	watershield	Dicots	None	None	S3	2B.3			Jun-Sep	Freshwater marshes and swamps. 1-2180 m.	4.4 miles west of the project area, near Leonard Lake. Last observed in 1983.	Unlikely
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	None	None	S2		SSC	M_S;USFS_S		Wide variety of habitats. Roosts in the open, hanging from walls and ceilings. Extremely sensitive to human disturbance.	2.4 miles northeast of the project area, near East Road in Redwood Valley. Last sighting in 1969.	Unlikely
Emys marmorata	western pond turtle	Reptiles	None	None	S3		SSC	BLM_S; USFS_S		Needs basking sites and suitable upland habitat (sandy banks or grassy open fields) up to .5 km from water for egg-laying.	.2 miles to the east of the project area, near the Ukiah Sewage Treatment Plant. Last sighting in 2004.	Unlikely
Erethizon dorsatum	North American porcupine	Mammals	None	None	S3					Wide variety of coniferous and mixed woodland habitat.	Located within the project area between East Gobbi overcrossing and to the south of Talmage Road overcrossing. Last observation was in 2015 as road kill.	Moderate
Fritillaria roderickii	Roderick's fritillary	Monocots	None	Endangered	S1	1B.1			Mar-May	Grassy slopes, mesas. 20-610 m.	4 miles to the southwest of the project near Leonard Lake. Unknown observation date.	Unlikely

Scientific Name	Common Name	Taxon Group	Federal	State	SRANK	CRPR	CDFW Status**	Other Status***	Blooming Period	Habitat	Nearest Location to Project Area	Potential Habitat Present Within Project Area?
Gratiola heterosepala	Boggs Lake hedge-hyssop	Dicots	None	Endangered	S2	1B.2		BLM_S	Apr-Aug	Clay soils; usually in vernal pools, sometimes on lake margins. 4-2410 m.	4.5 miles to the east of the project area in the South Cow Mountain OHV Area. Near the Mendocino and Lake County line. Last observation was in 2014.	Unlikely
Grimmia torenii	Toren's grimmia	Bryophytes	None	None	S2	1B.3		BLM_S		Openings, rocky, boulder and rock walls, serpentine, volcanic. 325-1160 m.	1.6 miles west of the project area on Hwy 253. Last observedin 2007.	Unlikely
Hesperolinon adenophyllum	glandular western flax	Dicots	None	None	S2S3	1B.2		BLM_S	May-Aug	Serpentine soils; generally found in serpentine chaparral. 425-1345 m.	3.5 miles northwest of the northern terminus of the project on Williams Ranch Road. Last observed in 1982.	High
Horkelia bolanderi	Bolander's horkelia	Dicots	None	None	S1	1B.2		BLM_S	ay) Jun- Aug	Grassy margins of vernal pools and meadows. 455-855 m.	5.4 miles east of the project area near the South Cow Mountain OHV Area. Last sighting 2014.	Unlikely
Kopsiopsis hookeri	small groundcone	Dicots	None	None	S1S2	2B.3			Apr-Aug	Open woods, shrubby places, generally on *Gaultheria shallon* . 120-1435 m.	4.4 miles southeast of the southern termnus of the project area on the UC Hopland Research Extension Center. Last sighting in 1976.	Unlikely
Lasiurus cinereus	hoary bat	Mammals	None	None	S4					Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	4.9 miles southwest of the southern terminus of the project area just south of Feliz Creek Road. Last sighting in 1958.	Unlikely

Scientific Name	Common Name	Taxon Group	Federal	State	SRANK	CRPR	CDFW Status**	Other Status***	Blooming Period	Habitat	Nearest Location to Project Area	Potential Habitat Present Within Project Area?
Lasthenia burkei	Burke's goldfields	Dicots	Endangered	Endangered	S1	1B.1			Apr-Jun	Most often in vernal pools and swales. 15-580 m.	1.2 miles east of the project area near Lake Mendocino. Last sighting in 2010.	High
Layia septentrionalis	Colusa layia	Dicots	None	None	S2	1B.2		BLM_S	Apr-May	Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 15-1100 m.	3.1 miles southeast of the project area on Old River Road. Possibly extirpated. Last sighting in 2005.	High
Limnanthes bakeri	Baker's meadow foam	Dicots	None	Rare	S1	1B.1			Apr-May	Seasonally moist or saturated sites within grassland; also in swales, roadside ditches and margins of freshwater marshy areas. 175-915 m.	Located within the project area in Redwood Business Park. Extirpated. Last observed in 1993 prior to wetland being developed.	Moderate
Malacothamnus mendocinensis	Mendocino bush-mallow	Dicots	None	None	S1	1B.1			Jun-Aug	Open, roadside banks. 215-230 m.	1.8 miles to the east of the Project area near Lake Mendocino. Previously thought extirpated but recently re-discovered in 2018.	Unlikely
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Dicots	None	None	S2	1B.1			Apr-Jul	Vernal pools and swales; adobe or alkaline soils. 3-1680 m.	1.2 miles east of the project area near Lake Mendocino. Last sighting in 2002.	High
Oncorhynchus mykiss irideus pop. 49	steelhead - northern California DPS winter-run	Fish	Threatened	None	S3			AFS_TH		Stream and rivers	Known to occur within Doolin Creek	Present

Scientific Name	Common Name	Taxon Group	Federal	State	SRANK	CRPR	CDFW Status**	Other Status***	Blooming Period	Habitat	Nearest Location to Project Area	Potential Habitat Present Within Project Area?
Pandion haliaetus	osprey	Birds	None	None	S4		WL			Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	.25 miles west of Project Area near Knights Hill and Nelson Vineyards. This occurrence is not yet documented in the CNDDB. Last observed in 2022.	May pass through area but unlikely to occur within the Project Area
Piperia candida	white-flowered rein orchid	Monocots	None	None	S3	1B.2			(Mar-Apr) May-Sept	Forest duff, mossy banks, rock outcrops. 20-615 m.	4.3 miles north of the northern terminus of the project area near Willits. Last observed in 2011.	Unlikely
Pleuropogon hooverianus	North Coast semaphore grass	Monocots	None	Threatened	S2	1B.1			Apr-Jun	Wet grassy, usually shady areas, sometimes freshwater marsh; associated with forest environments. 45-1160 m.	3.4 miles north of the northern terminus of the project area near Willits. In Little Lake Valley. Last observed in 2016.	Moderate
Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	Amphibians	None	None	S4		SSC	BLM_S; USFS_S		Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Located within the project area near Reeves Canyon. Last observed in 2019 in a vernal pool near the highway.	Present
Silene bolanderi	Bolander's catchfly	Dicots	None	None	S2	1B.2			May-Jun	Usually grass openins, sometimes dry rocky slope, canyons or roadsides; sometimes serpentinite. 420-150 m.	1 mile north near Willits in Little Lake Valley along Hwy 101 near the railroad overhead crossing. Last observed in 1979.	High
Strix occidentalis var. caurina	Northern spotted owl	Birds	Threatened	Threatened						Forests with a minimum of 40% canopy cover	2.6 miles to the east (MEN 0223) near Eagle Peak.	May pass through area but unlikely to occur within the Project Area

Mendocino County Resource Conservation District –
Cal Fire / CALTRANS Highway 101 Prescribed Burn Environmental Assessment

Scientific Name	Common Name	Taxon Group	Federal	State	SRANK	CRPR	CDFW Status**	Other Status***	Blooming Period	Habitat	Nearest Location to Project Area	Potential Habitat Present Within Project Area?
Taricha rivularis	red-bellied newt	Amphibians	None	None	S2		SSC			Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	Located within the project area near Robinson Creek, Forsythe Creek, Mill Creek.	Present
Tracyina rostrata	beaked tracyina	Dicots	None	None	S2	1B.2		USFS_S	May-Jun	Open grassy meadows usually wihtin oak woodland and grassland habitats. 150-795 m.	4.5 miles southwest of the project in the Mayacamas Mountains near the Lake County line. Last observed in 2003.	Unlikely
Trifolium buckwestiorum	Santa Cruz clover	Dicots	None	None	S2	1B.1		BLM_S	Apr-Oct	Moist grassland. Gravelly margins. 30-805 m.	1.5 miles east of the project area along Mill Creek. Last observed in 2015.	Unlikely
Viburnum ellipticum	oval-leaved viburnum	Dicots	None	None	S3?	2B.3			May-Jun	Chaparral and coniferous forests generally on north-facing slopes.	4.8 miles southeast of the southern terminus of the project area near the UC Hopland Research Extension Center. Plants were initially collected in 1953 and later seen at an unknown date.	Unlikely

** WL-Watch List, SSC - Species of Special Concern *** AFS_TH - American Fisheries Society - Threatened, BLM_S - BLM Sensitive, CDF - Sensitive, IUCN_VU - International Union for Conservation of Nature - Vulnerable

Cal IPC Ranking Discussion (Cal IPC, 2006):

High:

- These species have severe ecological impacts on ecosystems, plant and animal communities, and vegetational structure.
- Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment.
- These species are usually widely distributed ecologically, both among and within ecosystems.

Medium:

- These species have substantial and apparent – but generally not severe – ecological impacts on ecosystems, plant and animal communities, and vegetational structure.
- Their reproductive biology is conducive to moderate to high rates of dispersal, though establishment is generally dependent on ecological disturbance.
- Ecological amplitude and distribution may range from limited to widespread.

Low:

- The ecological impacts of these species are minor.
- Their reproductive biology and other invasiveness attributes result in low to moderate rates of invasion.
- Ecological amplitude and distribution are generally limited (these species may be locally persistent and problematic).

Table 2. Highway 101 Fuel Reduction Project - Plants Found during 2023 survey

Scientific Name	**Common Name**	**FAMILY**	**Nativity**	**Cal IPC**
Chlorogalum pomeridianum var.	soap plant	AGAVACEAE	Native	
Toxicodendron diversilobum	poison oak	ANACARDIACEAE	Native	
Daucus carota	Queen Anne's lace	APIACEAE	Non-Native	
Foeniculum vulgare	fennel	APIACEAE	Native	High
Sanicula crassicaulis	pacific snakeroot	APIACEAE	Native	
Torilis arvensis	tall sock destroyer	APIACEAE	Non-Native	Moderate
Apocynum cannabinum	Indian hemp	APOCYNACEAE	Native	
Asclepias fascicularis	narrow-leaved milkweed	APOCYNACEAE	Native	
Hedera helix	English ivy	ARALIACEAE	Non-Native	High
Achillea millefolium	common yarrow	ASTERACEAE	Native	
Agoseris spp.	mountain dandelion	ASTERACEAE	Native	
Anaphalis margaritaceae	pearly everlasting	ASTERACEAE	Native	
Baccharis pilularis ssp. consanguinea	coyote brush	ASTERACEAE	Native	
Centaurea solstitialis	yellow starthistle	ASTERACEAE	Non-Native	High
Cichorium intybus	chicory	ASTERACEAE	Native	
Cirsium vulgare	bull thistle	ASTERACEAE	Non-Native	Moderate
Dittrichia graveolens	stink wort	ASTERACEAE	Non-Native	Moderate
Erigeron bonariensis	flax-leaved horseweed	ASTERACEAE	Non-Native	
Erigeron canadensis	horseweed	ASTERACEAE	Native	
Hemizonia congesta ssp. luzulifolia	woodrush tarweed	ASTERACEAE	Native	
Hypochaeris sp.	cats ear	ASTERACEAE	Non-Native	Moderate
Lactuca serriola	prickly lettuce	ASTERACEAE	Non-Native	
Leontodon saxatilis ssp. saxatilis	hawkbit	ASTERACEAE	Non-Native	
Madia elegans	common madia	ASTERACEAE	Native	
Madia exigua	small tarweed	ASTERACEAE	Native	
Madia gracilis	slender tarweed	ASTERACEAE	Native	
Pseudognaphalium luteoalbum	Jersey cudweed	ASTERACEAE	Non-Native	
Pseudognaphalium stramineum	cottonbatting plant	ASTERACEAE	Native	
Pseudognaphalium thermale	small-headed cudweed	ASTERACEAE	Native	
Silybum marianum	milkthistle	ASTERACEAE	Non-Native	Limited
Sonchus asper ssp. asper	prickly sow thistle	ASTERACEAE	Non-Native	
Tolpis barbata	European milkwort	ASTERACEAE	Non-Native	
Wyethia spp.		ASTERACEAE	Native	
Azolla spp.	mosquito fern	AZOLLACEAE	Native	
Adelinia grande	hound's tongue	BORAGINACEAE	Native	
Amsinckia spp.	fiddleneck	BORAGINACEAE	Native	
Brassica rapa	field mustard	BRASSICACEAE	Non-Native	Limited
Brassica rapa var. rapa	mustard	BRASSICACEAE	Non-Native	Limited
Hirschfeldia incana	summer mustard	BRASSICACEAE	Non-Native	Moderate
Raphanus raphanistrum	jointed charlock	BRASSICACEAE	Non-Native	
Lonicera hispidula var. vacillans	hairy honeysuckle	CAPRIFOLIACEAE	Native	
Symphoricarpos albus var. laevigatus	common snowberry	CAPRIFOLIACEAE	Native	
Calocedrus decurrens	incense-cedar	CUPRESSACEAE	Native	

Scientific Name	**Common Name**	**FAMILY**	**Nativity**	**Cal IPC**
Sequoia sempervirens	coast redwood	CUPRESSACEAE	Native	
Carex sp.	sedge	CYPERACEAE	Native	
Carex sp.	sedge	CYPERACEAE	Native	
Cyperus eragrostis	nutsedge	CYPERACEAE	Native	
Cyperus esculentus	nut sedge	CYPERACEAE	Native	
Dipsacus fullonum	Fuller's teasel	DIPSACACEAE	Non-Native	Moderate
Dipsacus sativus	Indian teasel	DIPSACACEAE	Non-Native	Moderate
Arbutus menziesii	madrone	ERICACEAE	Native	
Arctostaphylos glandulosa ssp.	Eastwood manzanita	ERICACEAE	Native	
Acacia dealbata	silver wattle	FABACEAE	Non-Native	Moderate
Acmispon spp.	trefoil	FABACEAE	Native	
Genista monspessulana	French broom	FABACEAE	Non-Native	High
Lathyrus jepsonii var. californicus	California tule pea	FABACEAE	Native	
Lathyrus latifolius	everlasting pea	FABACEAE	Non-Native	Watch
Medicago polymorpha	bur clover	FABACEAE	Non-Native	Limited
Medicago sativa	alfalfa	FABACEAE	Non-Native	
Trifolium barbigerum	bearded clover	FABACEAE	Native	
Trifolium dubium	little hop clover	FABACEAE	Non-Native	
Trifolium fucatum	bull clover	FABACEAE	Native	
Vicia sp.	vetch	FABACEAE	Native	
Notholithocarpus densiflorus var.	tanoak	FAGACEAE	Native	
Quercus agrifolia var. agrifolia	coast live oak	FAGACEAE	Native	
Quercus chrysolepis	canyon live oak	FAGACEAE	Native	
Quercus garryana	Oregon white oak	FAGACEAE	Native	
Quercus lobata	valley oak	FAGACEAE	Native	
Quercus parvula var. shrevei	Shreve's oak	FAGACEAE	Native	
Zeltnera muehlenbergii	Monterey centaury	GENTIANACEAE	Native	
Zeltnera sp.	Centaury	GENTIANACEAE	Native	
Geranium sp.	Geranium	GERANIACEAE	Non-Native	
Phacelia sp.	phacelia	HYDROPHYLLACEAE	Native	
Hypericum performatum ssp.	Klamath weed	HYPERICACEAE	Non-Native	Moderate
Iris macrosiphon	bowl-tubed iris	IRIDACEAE	Native	
Sisyrinchium bellum	blue-eyed grass	IRIDACEAE	Native	
Juncus patens	common rush	JUNCACEAE	Native	
Mentha pulegium	pennyroyal	LAMIACEAE	Non-Native	Moderate
Monardella spp.	monardella	LAMIACEAE	Native	
Stachys rigida var. quercetorum	rough hedgenettle	LAMIACEAE	Native	
Stachys spp.	hedge nettle	LAMIACEAE	Native	
Umbellularia californica	laurel	LAURACEAE	Native	
Linum bienne	western blue flax	LINACEAE	Non-Native	
Malva neglecta	cheese weed	MALVACEAE	Non-Native	
Eucalyptus globulus	blue gum	MYRTACEAE	Non-Native	Limited
Epilobium brachycarpum	panicled willowherb	ONAGRACEAE	Native	
Parentucellia viscosa	yellow glandweed	OROBANCHACEAE	Non-Native	Limited

Scientific Name	**Common Name**	**FAMILY**	**Nativity**	**Cal IPC**
Pinus coulteri	Coulter pine	PINACEAE	Non-Native	
Pinus ponderosa	Ponderosa pine	PINACEAE	Native	
Pinus radiata	Monterey pine	PINACEAE	Native	
Pinus sabiniana	ghost pine	PINACEAE	Native	
Pseudotsuga menziesii	Douglas-fir	PINACEAE	Native	
Agrostis sp.	bent grass	POACEAE	Native	
Anthoxanthum odoratum	vanilla grass	POACEAE	Non-Native	Moderate
Avena spp.	oats	POACEAE	Non-Native	Moderate
Briza maxima	large rattlesnake grass	POACEAE	Non-Native	Limited
Briza minor	small rattlesnake grass	POACEAE	Non-Native	
Bromus diandrus	ripgut grass	POACEAE	Non-Native	Moderate
Bromus hordeaceus	soft chess	POACEAE	Non-Native	Limited
Bromus madritensis ssp. rubens	foxtail broom	POACEAE	Non-Native	High
Bromus tectorum	cheat grass	POACEAE	Non-Native	High
Cynodon dactylon	Bermuda grass	POACEAE	Non-Native	Moderate
Cynosurus echinatus	hedgehog grass	POACEAE	Non-Native	Moderate
Danthonia californica	California oatgrass	POACEAE	Native	
Elymus glaucus ssp. glaucus	wild rye	POACEAE	Native	
Festuca arundinaceae	tall fescue	POACEAE	Non-Native	Moderate
Festuca californica	California fescue	POACEAE	Native	
Holcus lanatus	velvet grass	POACEAE	Non-Native	Moderate
Hordeum branchyantherum	meadow barley	POACEAE	Native	
Hordeum marinum	Mediterranean barley	POACEAE	Non-Native	
Hordeum murinum	summer barley	POACEAE	Non-Native	Moderate
Paspalum dilatatum	dallis grass	POACEAE	Non-Native	
Phalaris spp.	harding grass	POACEAE	Native	
Stipa pulchra	purple needle grass	POACEAE	Native	
Navarretia mellita	skunkweed	POLEMONIACEAE	Native	
Rumex sp.	dock	POLYGONACEAE	Non-Native	
Ceanothus cuneatus var. cuneatus	buckbrush	RHAMNACEAE	Native	
Cercocarpus betuloides var. betuloides	birch-leaf mountain mahog	ROSACEAE	Native	
Heteromeles arbutifolia	toyon	ROSACEAE	Native	
Holodiscus discolor var. microphyllus	oceanspray	ROSACEAE	Native	
Rubus armeniacus	Himalaya berry	ROSACEAE	Non-Native	High
Rubus ursinus	trailing blackberry	ROSACEAE	Native	
Salix babylonica	weeping willow	SALICACEAE	Non-Native	
Salix exigua	narrowleaf willow	SALICACEAE	Native	
Salix laevigata	polished willow	SALICACEAE	Native	
Acer macrophyllum	bigleaf maple	SAPINDACEAE	Native	
Aesculus californica	California buckeye	SAPINDACEAE	Native	
Nicotiana quadrivalvis	indian tobacco	SOLANACEAE	Native	
Triteleia laxa	Ithuriel's spear	THEMIDACEAE	Native	
Typha sp.	cattail	TYPHACEAE	Non-Native	
Vitis californica	wild grape	VITACEAE	Native	

Appendix 3 – Sensitive Species List

SENSITIVE SPECIES

The following is a list of species with a moderate to high potential to be found within the Project Area.

Amphibians

Foothill yellow-legged frog, Population 1, *Rana boylii*. (CDFW Species of Special Concern, USFS and BLM Sensitive Species, S4). Potential to occur within Project Area: **High**

All seasonal, intermittent and perennial creeks, as well as vernal pools provide potential habitat for Foothill yellow-legged frog. This species occurs in the Coast Ranges from northern California to Los Angeles and is found in or near creeks and streams with rocky substrates in a variety of habitats. This species is infrequently found away from a permanent water source, even on rainy nights. The closest CNNDB occurrence was an observation within the project area in a vernal pool near Highway 101 and Reeves Canyon. No frogs were observed during botanical surveys of the Project Area.

Red-bellied newt, *Taricha rivularis.* (CDFW Species of Special Concern, S2). Potential to occur within Project Area: **High**

All seasonal, intermittent and perennial creeks provide potential habitat for the red-bellied newt. This species is found in coastal drainages from Humboldt County to Sonoma County and inland to Lake County. This species lives in terrestrial habitats and typically breeds in streams with moderate flow and clean, rocky substrate. This newt has been observed within the Project Area near Forsythe, Robinson and Mill Creeks. No red-bellied newts were observed during botanical surveys of the Project Area.

Applicable to All Amphibian Species:

All watercourses: No operations shall occur within wetland, riparian or stream channel habitats. All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No hazardous materials and/or sedimentation shall be discharged into wetland, riparian, or stream channel habitats because of the project. No refueling or other maintenance of equipment or vehicles shall occur within 50-100 feet of wetland, riparian, or stream channel habitats. Impacts to populations because of this project and its operations would be less than significant.

Birds

Grasshopper sparrow, *Ammodramus savannarum.* (CDFW Species of Special Concern, S3). Potential to occur within Project Area: **High**

This sparrow is a summer resident in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity counties to southern California. It occurs in dry, dense grasslands with scattered shrubs for singing perches. Grasshopper sparrows are secretive in winter. They require thick grasslands and forbs for cover, and nest in small depressions on the ground. They breed from April to mid-July. Sparrows feed primarily on insects but also eat other invertebrates, grains, and forb seeds. They search for food on the ground. The sparrow has sensitive status while nesting.

Applicable to All Bird Species:

All wetlands, seeps and watercourses will have a 25- to 50-foot buffer placed around them, where fire may be allowed to back into. The project provides nesting opportunities for passerine and raptor bird species, and potential impacts to nesting birds is regulated under Fish and Game Code (FGC) sections §3503 and §3503.5 (related to nesting birds and birds of prey). The nesting bird season is generally considered to be March 1st to August 31st. If operations are proposed within the March 1st to August 31st, nesting bird surveys shall be conducted within the Project Area prior to any operations. If an active nest is identified, the tree/brush will be excluded from the project area. All equipment and staging areas shall occur within

upland areas and shall avoid wetland, riparian, or stream channel habitats. No operations shall occur within wetland, riparian or stream channel habitats.

Fish

Steelhead, Northern California Winter Run, *Oncorhynchus mykiss irideus pop. 49.* (Federally Threatened, American Fisheries Society Threatened, S3). Potential to occur within the Project Area: **High**

Steelhead trout are part of the Central California Coast ESU (evolutionarily significant unit); this species is federally listed as threatened. They generally prefer fast water in small-to-large mainstem rivers, and medium-to-large tributaries. In streams with steep gradients and large substrate, they spawn between steep areas where the water is flatter, and the substrate is small enough to dig into. Steelhead trout may occur in the perennial creeks within the Project Area, and they are known to occur in the Russian River approximately 1 mile east of the Project Area.

Applicable to all Fish Species:

All wetlands, seeps and watercourses will have a 25- to 50-foot buffer placed around them, where fire may be allowed to back into. All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No operations shall occur within wetland, riparian or stream channel habitats.

Insects

Obscure bumble bee, *Bombus caliginosus.* (S1/S2). Potential to occur in Project Area: **High**

Habitat for this species includes grassy areas, urban parks, chaparral, shrub areas and meadows. It can be found along the west coast of the United States. They typically nest underground in abandoned rodent burrows or other cavities. They are most often noted on the Asteraceae plant family, but also visit *Ceanothus, Cirsium, Lathyrus, Lupus, Rhododendron, Rubus, Salix* and *Trifolium.* Potential habitat exists within the Project Area for western bumble bee due to the presence of preferred pollinator plants Treatment activities within the Project Area would likely benefit the western bumble bee by increasing plant vigor and health of preferred pollinator plants.

Western bumble bee, *Bombus occidentalis.* (California State Candidate Endangered, USFS Sensitive, S1). Potential to occur in Project Area: **High**

Western Bumble Bees inhabit a wide variety of natural, agricultural, urban, and rural habitats; although species richness tends to peak in flower-rich meadows of forests and subalpine zones. Western Bumble Bees are often found in wetter areas. Bumble Bees nest and hibernate in the ground in abandoned rodent burrows or similar holes, or above ground in log cavities, dense tufts of grass, or dead vegetation. They require floral resources and undisturbed nest sites and overwintering areas. They are often associated with the following plant genera: *Cirsium, Eriogonum, Solidago, Aster, Ceanothus, Centaurea, Penstemon* and the following plant families: *Fabaceae, Asteraceae, Rhamnaceae,* and *Rosaceae.* Potential threats include pathogens from commercial bumble bees, impacts from reduced genetic diversity, and habitat alterations (conifer encroachment, grazing). Other threats include pesticide use, catastrophic fire, agricultural intensification, urban development, and climate change. Potential habitat exists within the Project Area for western bumble bee due to the presence of preferred pollinator plants such as *Cirsium, Eriogonum, Ceanothus, Centaurea, Penstemon, Fabacea, Asteraceae, Rhamnaceae* and *Rosaceae.* Treatment activities within the Project Area would likely benefit the western bumble bee by increasing plant vigor and health of preferred pollinator plants.

Mammals

North American porcupine, *Erethizon dorsatum.* (S3). Potential to occur within Project Area: **Moderate.**

The North American porcupine has a wide range of habitats and are found throughout the western United States, most of Canada and south into parts of Mexico. They utilize caves, decaying logs, and hollow trees for dens and shelters. Porcupines are vulnerable due to their low reproductive rates and long gestation. Long summer droughts can reduce their forage. Vehicle collisions are also a primary threat and one that caused the death of the closest occurrence within the Project Area when a porcupine was discovered dead on Highway 101 near Talmage overcrossing in 2015. Potential North American porcupine habitat exists within the Project Area. Treatment activities would have no direct affect on this habitat, though it may increase forage due to increased plant vigor from burning. No North American porcupines were seen within the Project Area during surveys.

Applicable to all Mammal Species:

All wetlands, seeps and watercourses will have a 25 foot to 50 foot buffer placed around them, where fire may be allowed to back into. All equipment and staging areas shall occur within upland areas and shall avoid wetland, riparian, or stream channel habitats. No operations shall occur within wetland, riparian or stream channel habitats. Given the scope and operations of the project, impacts will be less than significant. Impacts to mammal populations because of this project and its operations would be less than significant.

Plants (Monocots and Dicots)

Raiche's manzanita, *Arctostaphylos stanfordiana ssp. raichei.* (CRPR 1B.2, BLM Sensitive)
Potential to occur within Project Area: **High**

This perennial shrub can be found within chapparal and openings within oak woodlands and coniferous forests. It ranges from western Lake County into southern Mendocino County. Threats include development, roadside maintenance, and fuels reduction projects. The closest recorded observation to the Project Area is near the junction of Highway 253 and Highway 101 in the Robinson Creek area. Habitat exists within the Project Area for this shrub. No Raiche's manzanita was found during botanical surveys.

Sonoma sunshine, *Blennosperma bakeri.* (Federal and California State Endangered, CRPR 1B.1). Potential to occur within Project Area: **High**

This annual herbaceous species is found in moist grasslands and vernal pools. The blooming window ranges from February into May. Primary threats include activities that result in the destruction or plants or in the alteration of the hydrology that supports their habitat. This includes development, land conversion, OHV use and trampling. A population occurs within the Project Area approximately ½ mile north of Highway 101 and Reeves Canyon Road, on the northbound side of the highway. This population will be protected from treatment with a 20-foot buffer.

Glandular western flax, *Hesperolinon adenophyllum*. (CRPR 1B.2, BLM Sensitive).
Potential to occur within Project Area: **High**

This tiny annual herbaceous species can be found on gravelly substrates in open foothill woodlands, grassland, chaparral, and serpentine habitats. The blooming window ranges from May through August. It ranges throughout Lake and Mendocino Counties. Threats include road building and maintenance (many times these plants are growing along road margins), grazing, logging, OHV, and trash. The closest recorded occurrence to the Project Area is 3.5 miles north on Williams Ranch Road. Habitat exists for this plant within the Project Area. No Glandular western flax was observed during botanical surveys.

Baker's goldfields, *Lasthenia bakeri.* (Federal and California State Endangered, CRPR 1B.1).
Potential to occur within Project Area: **High**

This annual herbaceous plant is found in moist grasslands, seeps and vernal pools. The blooming window occurs April through June. It occurs in the southern inner North Coast Ranges in southern Mendocino, Lake and northeast Sonoma counties. Primary threats include activities that result in the destruction of plants or in the alteration of the hydrology that supports their habitat. This includes invasive weed competition,

development, land conversion, OHV use and trampling. The nearest recorded occurrence is 1.2 miles east near Lake Mendocino. Habitat exists within the Project Area for Baker's goldfields. No plants were observed during botanical surveys.

Colusa layia, *Layia septentrionalis.* (CRPR 1B.2, BLM Sensitive). Potential to occur within Project Area: **High**

This annual herbaceous plant can be found from the North Coast ranges and Sutter Buttes (in the central valley). It grows in foothill woodlands and grasslands in rocky soils. Potential threats include development, invasive plant competition and trampling. The nearest recorded occurrence is 3.1 miles southeast of the Project Area along Eastside Road in Hopland on a road cutbank. That population has since been thought to have been extirpated. Habitat exists within the project area. No Colusa layia were observed during botanical surveys.

Baker's meadowfoam, *Limnanthes bakeri.* (California State Rare, CRPR 1B.1).
Potential to occur within Project Area: **Moderate**

This annual herbaceous plant is found in vernal pools, wet meadows and seeps. The bloom period is April through May. This plant is found in the central outer North Coast Ranges in Mendocino County near Laytonville, Hulls Valley, Little Lake Valley and Ukiah Valley. Primary threats include altered hydrology, grazing, development and road construction. The nearest recorded occurrence was within the Project Area which is now the Redwood Business Park near Costco. This population was extirpated in 1993 due to development of the business park. Small pockets of habitat exist within the Project Area for this plant. No Baker's meadowfoam was detected during plant surveys.

Baker's navarretia, *Navarretia leucocephala ssp. bakeri,* (CRPR 1B.1, BLM sensitive).
Potential to occur within Project Area: High

This annual herbaceous species can occur in Yellow Pine Forest, Northern Oak Woodland, Foothill Woodland, Valley Grassland, Freshwater Wetlands, and wetland riparian areas. It occurs in wetlands, vernal pools, and meadows. It blooms April through July. Threats include development, road construction, and agriculture. The nearest recorded occurrence is 1.2 miles east near Lake Mendocino. Habitat exists within the Project Area for this plant. No Baker's navarretia was discovered during botanical surveys in 2023.

North coast semaphore grass, *Pleuropogon hooverianus.* (California State Threatened, CRPR 1B.1).
Potential to occur within Project Area: **Moderate**

This perennial tussock-forming bunchgrass is found in wet meadows, seeps and wetland edges in both shade and sunny locations. The blooming period is April through June. Primary threats to this plant include development, altered hydrology, trampling (grazing), invasive plant competition, feral pigs and conifer encroachment. The nearest recorded observance is 3.4 miles north in the Willits bypass area of Little Lake Valley. Small patches of habitat exist within the Project Area. North coast semaphore grass was not detected during botanical surveys.

Bolander's catchfly, *Silene bolanderi.* (CRPR 1B.2). Potential to occur within Project Area: **High**

This perennial herbaceous plant prefers chaparral edges, woodlands, meadows and seeps. It can be found on roadside edges and grassy openings. It ranges from southwest Oregon as far south as Mendocino County with one recorded population in Lake County. The blooming period is May through June. Primary threats include development, roadside maintenance and invasive plant competition. The nearest recorded occurrence of this plant was along Highway 101, 1 mile north of the Project Area. Habitat exists within the Project Area. Bolander's catchfly was not detected during botanical plant surveys.