Addendum
Jackson Demonstration State Forest
Road 720 Upgrade Project SCH# 2018062051
Mendocino County, California

May 2024

Introduction And Purpose

This addendum was prepared in accordance with the California Environmental Quality Act (CEQA) and the CEQA guidelines. This document has been prepared to serve as an addendum to the previously adopted Mitigated Negative Declaration (MND) for the Jackson Demonstration State Forest Road 720 Upgrade Project (Project) in Mendocino County (County). The adopted MND addressed the potential environmental impacts associated with road reconstruction and sediment control upgrades to 2.5 miles of dirt Road 720 within the Railroad Gulch (Big River) watershed on Jackson Demonstration State Forest (JDSF) property (within the southwestern portion of the forest). The proposed project is intended to improve JDSF Railroad Gulch watershed forest roads and, after upgrading, will make Road 720 the new "year-round" primary access to the Mendocino Woodlands Camp (MWC). The Road 720 Upgrade Project involves a variety of treatments used to reduce erosion and sediment delivery and make dirt roads more resilient to large storms and flood flows. This addendum addresses the revised project, which incorporates revisions to tree removals and biological mitigation measures. No other changes are proposed.

This addendum has been prepared pursuant to CEQA guidelines section 15164 and addresses the modifications (revised project) relative to the approved project. The approved project and the adopted MND are available for review at:

Jackson Demonstration State Forest Public Counter
802 North Main
For Bragg, California 95437

Background And Purpose of The Addendum

The MND for the project was adopted by the CAL FIRE on June 22. 2018. Since this time, modifications were made to the number of trees that needed to be removed due to road upgrade requirements and slope stabilization. The additional tree removal required an updated CNDDB report and modifications to mitigation measures for the northern spotted owl and marbled murrelet.

The CEQA analysis approach to the revised Project is to prepare an Addendum to the adopted MND and revise pertinent sections of the previous MND as attached. The adopted Final MND retains all the previous dates of circulation and approvals for reference. As indicated, revisions pertain only to biological resources. All other sections and impact determinations remain unchanged.

Basis For Decision to Prepare an Addendum

CEQA requires that the proposed project be reviewed to determine the environmental effects that would result if the project is approved and implemented. California Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15164 set forth the criteria for determining whether a subsequent Environmental Impact Report (EIR), subsequent negative declaration, addendum, or no further documentation be prepared in support of further agency action on the project. Pursuant to CEQA Guidelines Section 15162, a subsequent EIR or negative declaration shall be prepared if any of the following criteria are met:

(a) When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

   A. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

   B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

   C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

   D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, and addendum, or no further documentation.

In determining whether an Addendum is the appropriate document to analyze the proposed modifications to the project and its approval, CEQA Guidelines Section 15164 (Addendum to an EIR or Negative Declaration) states:

a) The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

d) The decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.

e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should

be included in an addendum to an EIR, the lead agency's required findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

As demonstrated in the environmental analysis provided in the Environmental Analysis, the revised Project does not meet the criteria for preparing a subsequent EIR or negative declaration as established under CEQA Guidelines Section 15162.

Project Description

Project Location

This project consists of 2.5 miles of existing road located on State of California property within Jackson Demonstration State Forest (JDSF), Mendocino County, California. The road location can be described more specifically as follows:

- Road 720 is located approximately 4.0 miles east of Highway 1 off County Road 408. The project site is situated within the S ½ of Section 23, and SW ¼ of SW ¼ of Section 24, Township 17N R17W, MDB&M, on the Mathison Peak USGS 7.5-minute topographic map.

Environmental Setting

JDSF has vegetation communities and associations typical of coastal redwood forest in Mendocino County. The redwood series is the principal vegetation type found within JDSF, comprising approximately 48,000 acres. The dominant variation is redwood-Douglas-fir, which covers over half (54 percent) of the Forest. Other common vegetation types are redwood and Douglas-fir/redwood, each comprising about 15 percent of the area. Stands of pure redwood are uncommon; however, stands in which redwood is the sole dominant tree species include approximately 7,400 acres or 15% of JDSF. The remaining forested vegetation types, in descending order of abundance, are hardwood/redwood, mixed hardwood-conifer, pygmy forest, closed-cone (Bishop) pine-cypress, mixed conifer, and alder. Grassland/bare ground and brush vegetation types together make up less than one percent of JDSF.

The primary tree composition of the surrounding forest is coast redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*) and tan-oak (*Notholithocarpus densiflorus*). The average annual precipitation for the Fort Bragg area ranges from 38-43 inches per year.

Revised Project

The revised Project includes additional tree removal and revised mitigation measures as indicated in the attached Mitigated Negative Declaration. These revisions do not substantially change the level of significance for potential impacts.

Environmental Analysis

This section of the Addendum provides analysis and cites substantial evidence that supports the conclusion that the project revisions do not meet the criteria requiring preparation of a subsequent negative declaration. As required under CEQA Guidelines Section 15164(d), "… the decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project." A brief explanation of the decision to not prepare a subsequent document shall be supported by substantial evidence.

The revised Project occupies the same location as the project adopted in June 2018. Because of its location, many impacts related to the physical conditions of the site (e.g., geology, land use, cultural resources, and mineral resources) would be similar to those previously identified in adopted Initial Study (IS)/MND.

The revised Project does not require any action that changes the circumstance of previous project approvals. No substantially altered use would be developed on site. The surrounding environment is essentially unchanged from that identified in previous documents. The additional tree removal would not significantly change the implementation of the revised Project. Due to this similarity in uses and no change in the proposed road improvements to what was addressed in the adopted IS/MND, it is reasonable to conclude that the severity of identified impacts related to the road upgrade would not exceed that previously identified in the adopted IS/MND.

All mitigation identified in the adopted MND remain equally applicable to the project and revised and new mitigation measures have been incorporated to address specific site characteristics. These measures are similar in nature to the previous measures and are updated with newer survey protocols. The project is within the same location, has the same site conditions, and will implement the same construction activities. Environmental impacts as set forth in the revised document will remain equally effective at reducing the impacts associated with the Road 720 Upgrade. Compliance with appropriate project mitigation as well as applicable State and federal conditions, guidelines, and regulations would apply to the project site, thereby reasonably ensuring the project is constructed and operated in a safe and effective manner.

Environmental Finding

The MND adopted for the project was supported by CEQA analysis. The MND underwent required public review. The adopted MND is inclusive of the project Initial Study, all previously referenced site-specific studies, public comments, responses to comments, and the Mitigation Monitoring and Reporting Program. The adopted MND has been included, with revisions underlined. All mitigation identified in the adopted MND remains equally applicable to the project as revised. Compliance with appropriate and applicable State and Federal conditions, guidelines, and regulations would apply to the project, thereby reasonably ensuring the project is constructed and operated in a safe and effective manner.

The revised Project does not cause a new significant impact or substantially increase the severity of a previously identified impact. The revisions would not result in new significant environmental impacts or an increase in the severity of the environmental impacts that were identified. There have been no significant changes in circumstances that would involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects. None of the "new information" conditions listed in CEQA Guidelines Section 15162[a][3] are present here to trigger the need for a subsequent MND. The proposed additional tree removal and revision of biological mitigation measures would not result in a new significant impact or increase the severity of a previously identified impact. As such, the revised Project does not entail project changes warranting the preparation of an EIR, supplemental EIR, subsequent EIR, or negative declaration.

Due to the minor project revisions, no condition described in CEQA Guidelines Section 15162 calling for the preparation of an EIR, supplemental EIR, subsequent EIR, or negative declaration have occurred. CAL FIRE, as the CEQA Lead Agency, has determined that preparation of the Addendum to the Adopted MND is appropriate, and with the Adopted MND constitutes the environmental record for the project as revised.

DocuSigned by:
John Melvin
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5/14/2024

John Melvin, Assistant Deputy Director — Date
Resource Protection and Improvement
California Department of Forestry and Fire Protection

Final Initial Study/Mitigated Negative Declaration for the proposed Jackson Demonstration State Forest Road 720 Upgrade Project SCH# 2018062051 Mendocino County, California

prepared by:

The California Department of Forestry and Fire Protection
The Lead Agency Pursuant to Section 21082.1 of the
California Environmental Quality Act

Resource Management – Environmental Protection Program
2180 Harvards Street, Suite 200
Sacramento, CA 95815
(916) 263-3370

July 30, 2018

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MITIGATED NEGATIVE DECLARATION

Introduction and Regulatory Context

Stage of California Environmental Quality Act (CEQA) Document Development

☐ **Administrative Draft.** This CEQA document is in preparation by California Department of Forestry and Fire Protection (CAL FIRE) staff.

☐ **Public Document.** This completed CEQA document has been filed by CAL FIRE at the State Clearinghouse on June 25, 2018 and is being circulated for a 30-day agency and public review period. The public review period ends on July 25, 2018. Instructions for submitting written comments are provided on Pages 5-6 of this document.

☒ **Final CEQA Document.** This final CEQA document contains the changes made by the department following consideration of comments received during the public and agency review period. The changes are displayed in strike-out text for deletions and underlined text for insertions. The CEQA administrative record supporting this document is on file, and available for review, at CAL FIRE's Sacramento Headquarters, Environmental Protection Program, which is located 2180 Harvard Street, Suite 200, Sacramento, California.

Introduction

This initial study-mitigated negative declaration (IS-MND[1]) describes the environmental impact analysis conducted for the proposed project. This document was prepared by CAL FIRE staff utilizing information gathered from a number of sources including research and field review of the proposed project area and consultation with environmental planners and other experts on staff at other public agencies. Pursuant to Section 21082.1 of CEQA, the lead agency, CAL FIRE, has prepared, reviewed, and analyzed the IS-MND and declares that the statements made in this document reflect CAL FIRE's independent judgment as lead agency pursuant to CEQA. CAL FIRE further finds that the proposed project, which includes revised activities and mitigation measures designed to minimize environmental impacts, will not result in significant adverse effects on the environment. Although this MND was filed in 2018, it is being revised and reposted as mitigation measures are being changed to reflect updated surveys and CNDDB report for special status species and updated tree removal standards. This revision seeks to retain the initial mitigations observing limiting operating windows (i.e. avoidance measures during critical periods of a species life cycle) for northern spotted owl (*Strix occidentalis*; NSO) and marbled murrelet (*Brachyramphus marmoratus*; MAMU) when survey clearance has expired or is at a level insufficient to support a "less than significant" impact with respect to the activities proposed.

Regulatory Guidance

This IS-MND has been prepared by CAL FIRE to evaluate potential environmental effects which could result following approval and implementation of the proposed project. This document has been prepared in accordance with current CEQA statutes (Public Resources Code [PRC] §21000 *et seq.*) and current CEQA Guidelines (California Code of Regulations [CCR] §15000 *et seq.*).

An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (14 CCR § 15063[a]), and thus, to determine the appropriate environmental document. In accordance with CEQA Guidelines §15070, a "public agency shall prepare … a proposed negative declaration or mitigated negative declaration … when: (a) The initial study shows that there is no substantial evidence … that the project may have a significant impact upon the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions will reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project will not have a significant effect on the environment and, therefore, does not require the preparation of an environmental impact report (EIR). This IS-MND conforms to these requirements and to the content requirements of CEQA Guidelines Section 15071.

Purpose of the Initial Study

CAL FIRE has primary authority for carrying out the proposed project and is the lead agency under CEQA. The purpose of this IS-MND is to present to the public and reviewing agencies the environmental consequences of implementing the proposed project and describe the adjustments made to the project to avoid significant environmental effects or reduce them to a less-than-significant level. This disclosure document is being made available to the public, and reviewing agencies, for review and comment. The IS-MND is being circulated for public and agency review and comment for a review period of 30 days as indicated on the ***Notice of Intent to Adopt a Mitigated Negative Declaration*** (NOI). The 30-day public review period for this project begins on June 25, 2018 and ends on July 25, 2018.

The requirements for providing an NOI are found in CEQA Guidelines §15072. These guidelines require CAL FIRE to notify the general public by utilizing at least one of the following three procedures:

- Publication in a newspaper of general circulation in the area affected by the proposed project,
- Posting the NOI on and off site in the area where the project is to be located, or
- Direct mailing to the owners and occupants of property contiguous to the project.

CAL FIRE has elected to utilize the second of the three notification options. The NOI was posted at four prominent locations on and off site in the area where the project is located for the entire 30-day public review period. The four locations where the NOI was posted during the 30-day public review period are:

1. At the intersection of Forest Road 720 and County Road 408.

2. At Jackson Demonstration State Forest public-greeting counter in Fort Bragg (802 North Main, Fort Bragg, California, 95437).

3. At Mendocino Unit headquarters at Howard Forest public-greeting counter in Willits.

4. At the Mendocino County Clerk/Recorder's Office in Ukiah.

A complete copy of this CEQA document was made available for review by any member of the public requesting to see it at locations #2 and #3 above. An electronic version of the NOI and the CEQA document were made available for review for the entire 30-day review period through their posting on CAL FIRE's internet page at:

http://www.fire.ca.gov/resource_mgt/resource_mgt_EPRP_PublicNotice.php

If submitted prior to the close of public comment, views and comments are welcomed from reviewing agencies or any member of the public on how the proposed project may affect the environment. Written comments must be postmarked or submitted on or prior to the date the public review period will close (as indicated on the NOI) for CAL FIRE's consideration. Written comments may also be submitted via email (using the email address which appears below) but comments sent via email must also be received on or prior to the close of the 30-day public comment period. Comments should be addressed to:

Christina Snow, Senior Environmental Planner
California Department of Forestry and Fire Protection
Technical Services
1300 U Street
Sacramento, CA 95818
Phone: (916) 324-1639
Email: sacramentopubliccomment@fire.ca.gov

After comments are received from the public and reviewing agencies, CAL FIRE will consider those comments and may (1) adopt the mitigated negative declaration and approve the proposed project; (2) undertake additional environmental studies; or (3) abandon the project. If the project is approved and funded, CAL FIRE could design and construct all or part of the project.

Project Description and Environmental Setting

Project Location

This project consists of 2.5 miles of existing road located on State of California property within Jackson Demonstration State Forest (JDSF), Mendocino County, California. The road location can be described more specifically as follows:

- Road 720 is located approximately 4.0 miles east of Highway 1 off County Road 408. The project site is situated within the S ½ of Section 23, and SW ¼ of SW ¼ of Section 24, Township 17N R17W, MDB&M, on the Mathison Peak USGS 7.5-minute topographic map.

Background and Need for the Project

The proposed project is a result of the JDSF Management Plan and accompanying EIR, State Clearing House (SCH) #2004022025, dated January 2008 (addendum January 2017). The JDSF Management Plan (http://calfire.ca.gov/resource_mgt/resource_mgt_stateforests_jackson) includes a road management plan that identifies the tasks of developing a road inventory, setting priorities for road improvements, maintenance activities, creating construction standards, and decommissioning roads that are creating ecological damage.

JDSF consists of one contiguous land ownership of approximately 48,652 acres. The Forest has been managed as a working forest since its purchase by the state from the Caspar Lumber Company in 1947. Active timber management has constructed and maintained a forest-wide road network that amounts to approximately 450 miles of permanent and seasonal roads.

The road network requires continuous maintenance, reconstruction and upgrades to maintain the roads in a usable condition as well as to protect natural resources from potential impacts related to road erosion.

Forest roads on JDSF are used for timber harvesting, forest management activities, forest protection, public access, and recreation. Numerous studies have shown that forest roads are a major source of management-related stream sediment (Furniss et al. 1991). Much of this sediment originates from points at which or near where streams are crossed by roads, from inside ditches, and from large fill failures. The management plan for JDSF includes a program to inventory and improve its road system. Additionally, the plan provides guidelines for new road construction. The goal of this program is to protect and enhance stream channel conditions for anadromous fish, amphibians, and other sediment sensitive aquatic organisms by reducing both fine and coarse sediment loading. Implementation of this plan will also improve water quality by reducing suspended sediment concentrations and turbidity. The road management plan includes the following components:

1. Road Network and Stream Crossing Inventory: A plan to inventory roads, road-related facilities, and potential hazards associated with roads.

2. Road Design and Construction Standards: Guidelines for road location, design, and construction.

3. Road Use Restrictions: Guidelines that identify restrictions on use of roads, particularly during wet weather conditions.

4. Road Inspection and Maintenance Program: Guidelines for monitoring Forest roads and establishing a maintenance program.

5. Road Abandonment Plan: A comprehensive plan to identify and prioritize roads to be properly abandoned (i.e., closed or decommissioned).

6. Schedule for the Road Management Plan: A timeline for completion of the road inventory and a method to prioritize the road improvement and abandonment work included as part of the road management plan.

The completed road inventory has identified roads and road features in need of maintenance, upgrades, replacements, and abandonment. Through this inventory roads projects have been prioritized based on the number of road features in need of work as well as the location of the road system in relation to sensitive resources like perennial watercourses.

The upgrade of Forest Road 720 is necessary to accommodate the abandonment of Forest Road 700. This will be a multiple stage project with the abandonment of Road 700 being one of the highest road priority projects within JDSF.

Project Objectives

The two primary objectives for this project are 1) to establish a functional all season access road to Woodland Camp that will enable the abandonment of the current main access road (Road 700), and 2) mitigate existing and ongoing impacts to watercourse due to sediment related road issues.

Project Start Date

CAL FIRE is unable to accurately disclose when actual work on this project might begin. The earliest date will be sometime in 2018-2019, after the completion of the CEQA process, followed by the approval of grant funding. The actual start date will depend on weather conditions and contractor scheduling.

Project Description

The project would implement road reconstruction and sediment control upgrades to 2.5 miles of the dirt Road 720 within the Railroad Gulch (Big River) watershed on JDSF property (within the southwestern portion of the forest). The proposed project is intended to improve JDSF Railroad Gulch watershed forest roads and, after upgrading, will make Road 720 the new "year-round" primary access to the Mendocino Woodlands Camp (MWC). The Road 720 Upgrade Project involves a variety of treatments used to reduce erosion and sediment delivery and make dirt roads more resilient to large storms and flood flows. The most important of these are:

1. Upgrade all stream crossings: Upgrade eight culverts to accommodate 100-year peak storm flow and debris in transport, correct fish passage issues, and correct or prevent stream diversion;

2. Remove unstable sidecast (excavated material) and fill materials from steep slopes;

3. Install and improve road turnouts for vehicle passage;

4. Install new buried utilities and improve and correct existing buried utility location to accommodate new drainage facilities;

5. Apply road drainage techniques: Improve ditch relief culverts (17 culverts), install additional ditch relief culverts (4 culverts), remove berms, construct rolling dips, inslope or outslope the road to improve dispersion of surface runoff, rock armor all culverts;

6. Add road rock or riprap as needed to fortify roads and crossings; and,

7. Treat the road surface by chip sealing (1.85 miles) to minimize fine sediment production.

8. Raise road bed approximately four feet at specific locations (see Figure 2) for a total of .15 miles.

All stream crossing culverts will be removed and replaced with new properly sized culverts and installed at the natural stream grade with fill-slope armoring the energy dissipaters at the outlets. Existing ditch relief culverts will be replaced, and additional ditch relief culvert will be installed as needed.

The project will reshape and rock all 2.5 miles of road 720 and "double chip sealed" 1.8 miles of road 720. Chip sealing is a technique used to effectively hydrologically disconnect the road from the watercourses and prevent sediment from discharging into the watershed. The treatment is an application of hot asphalt emulsion followed by an aggregate cover over the traveled surface of the road. A double chip seal is two applications of the asphalt and aggregate cover creating a thicker more durable surface with only a minor increase in overall costs. This is the best and most cost-effective measure to prevent fine sediment production from the road surface. The rock chips used for the chip sealing would likely come from the Harris Quarry located approximately 28 miles southeast on Highway 101 outside of Willits.

A minimal number of small diameter trees (i.e. < 11" DBH), and 20 trees (> 11" DBH) will be removed to improve the turning radius on specific road segments as well as accommodate the watercourse crossing replacements and installation of the new road pullouts. The majority of the project disturbance will be around the watercourse crossings and ditch relief culverts which encompasses the road prism and approximately 25 feet on either side.

Road 700 is the current main access road to MWC with heavy annual visitor use. In a future Phase 2 project (separate CEQA analysis), Road 700 will be abandoned from its intersection with Road 705 to the State Parks property line and this will halt most of the sediment delivery to Railroad Gulch. The 2-phase approach maintains access to MWC and will best align projects with appropriate grant funding sources. Phase 1 would begin in summer of ~~2019~~2024 and be completed in 2024 before the wet weather period, or if necessary, in 2025 after the onset of the dry period. Phase 2 would begin and end during the summer construction season of ~~2020~~2024 or 2025, depending on environmental review.

This first phase of the project would be completed in approximately two months and would involve the use of rock hauling trucks, excavator, tractor, compactor/roller and road grader.

Environmental Setting of the Project Region

JDSF is located a little northward of the geographic center of the redwood region, which stretches 500 miles from Del Norte County through Monterey County. About half the total area of redwood forest is located to the north of JDSF and about half to the south. With 542,000 acres of redwood forest, Mendocino County encompasses more redwood forest area than any other county in California (Fire and Resource Assessment Program 2002).

JDSF includes portions of the Noyo and Big River watersheds, as well as several small watersheds that drain directly to the Pacific Ocean. JDSF covers approximately 48,652 acres in central Mendocino County (see Figure 1). It varies from 2½ to 8 miles wide in a north-south direction and is about 16½ miles long on the east-west axis. Its western boundary is within 1.5 miles of the coast, and the eastern boundary generally lies on the crest of the Mendocino Ridge separating the coastal slopes from the inland valleys, approximately 7 miles west of Willits.

This road project is located on JDSF state lands (see Figure 2). Forest Road 720 is approximately 4.0 air miles north/east of Mendocino. The project site elevation ranges from 100- 800 feet above sea level. Road 720 is located within the Big River watershed.

Description of the Local Environment

JDSF has vegetation communities and associations typical of coastal redwood forest in Mendocino County. The redwood series is the principal vegetation type found within JDSF, comprising approximately 48,000 acres. The dominant variation is redwood-Douglas-fir, which covers over half (54 percent) of the Forest. Other common vegetation types are redwood and Douglas-fir/redwood, each comprising about 15 percent of the area. Stands of pure redwood are uncommon; however, stands in which redwood is the sole dominant tree species include approximately 7,400 acres or 15% of JDSF. The remaining forested vegetation types, in descending order of abundance, are hardwood/redwood, mixed hardwood-conifer, pygmy forest, closed-cone (Bishop) pine-cypress, mixed conifer, and alder. Grassland/bare ground and brush vegetation types together make up less than one percent of JDSF.

The primary tree composition of the surrounding forest is coast redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*) and tan oak (~~*Lithocarpus*~~ *Notholithocarpus densiflorus*). The average annual precipitation for the Fort Bragg area ranges from 38-43 inches per year.

Current Land Use and Previous Impacts

The project area has been involved with active timber harvesting as far back as the late 1800s. The State of California purchased the land base that is the current day JDSF from the Caspar Lumber Company in 1947. Prior to its acquisition most of the area had been heavily harvested. JDSF is now primarily a healthy young-growth forest ecosystem with redwood, Douglas-fir, and hardwood tree species. Since 1947, CAL FIRE has managed JDSF to achieve a number of different goals, including research in various natural sciences of the forested landscape, demonstration of existing and new methods of sustainable timberland management for non-industrial and industrial forest landowners; educational efforts using formal seminars, field tours, publications, and demonstrations; maintenance and enhancement of wildlife and fisheries habitats; and public recreation.

The land area of JDSF continues to operate as a working forest where active timber operations such as timber harvesting, road construction, and associated projects continue to use the Forest for demonstration and research purposes.

Figure 1. Project Vicinity Map.

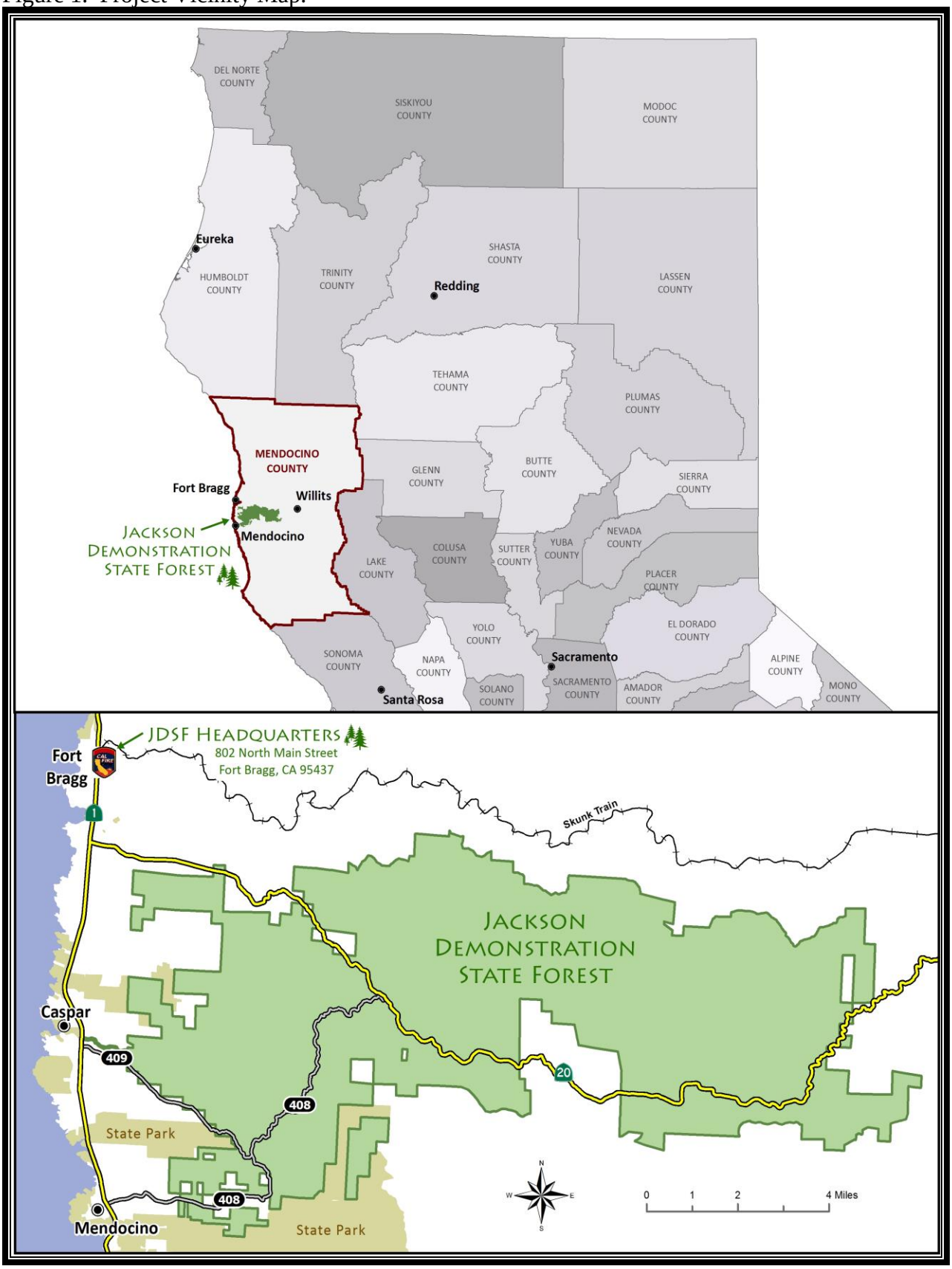


Figure 2. Road 720 Upgrade Project Map.

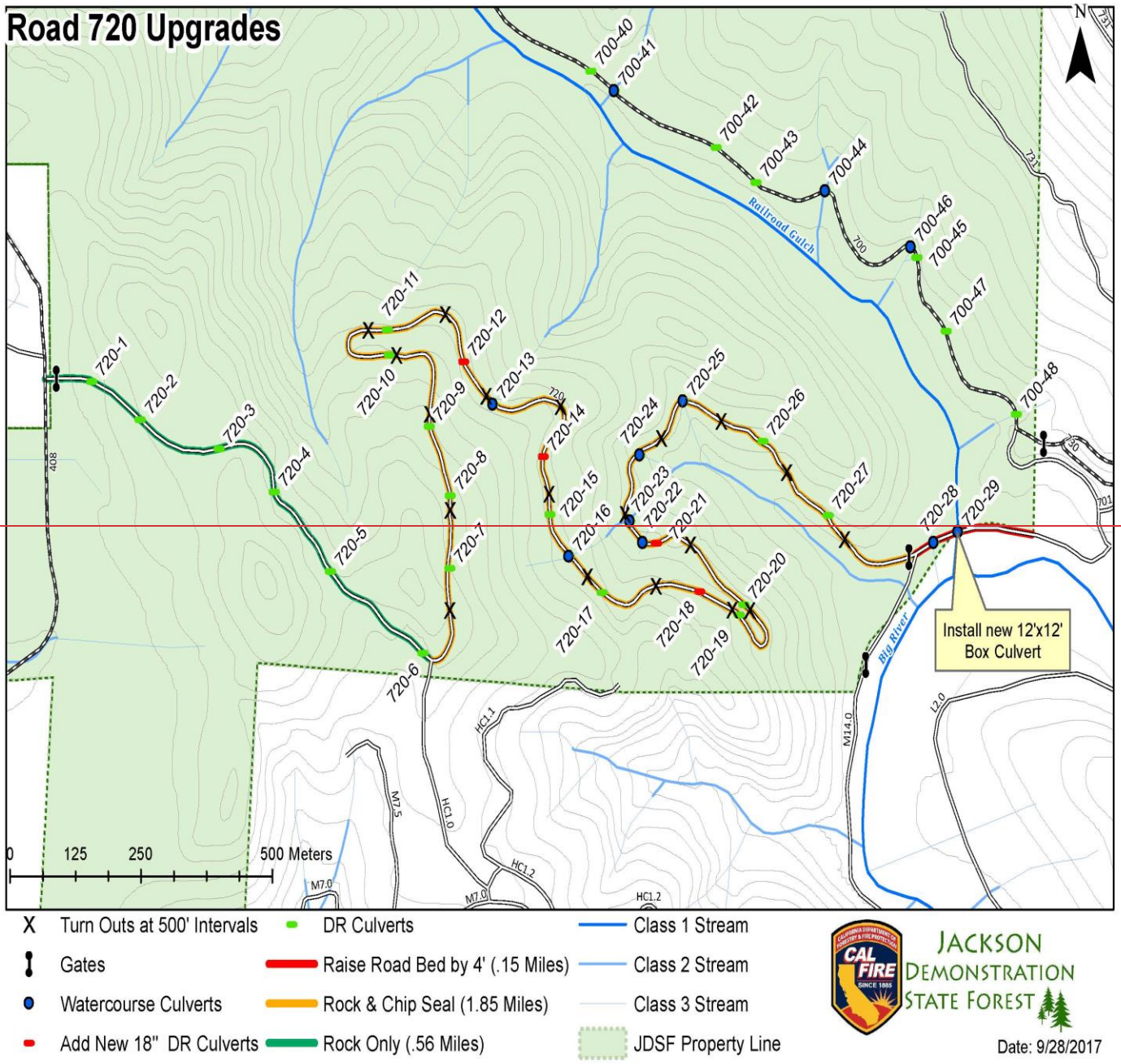


Figure 3. Road Work Points

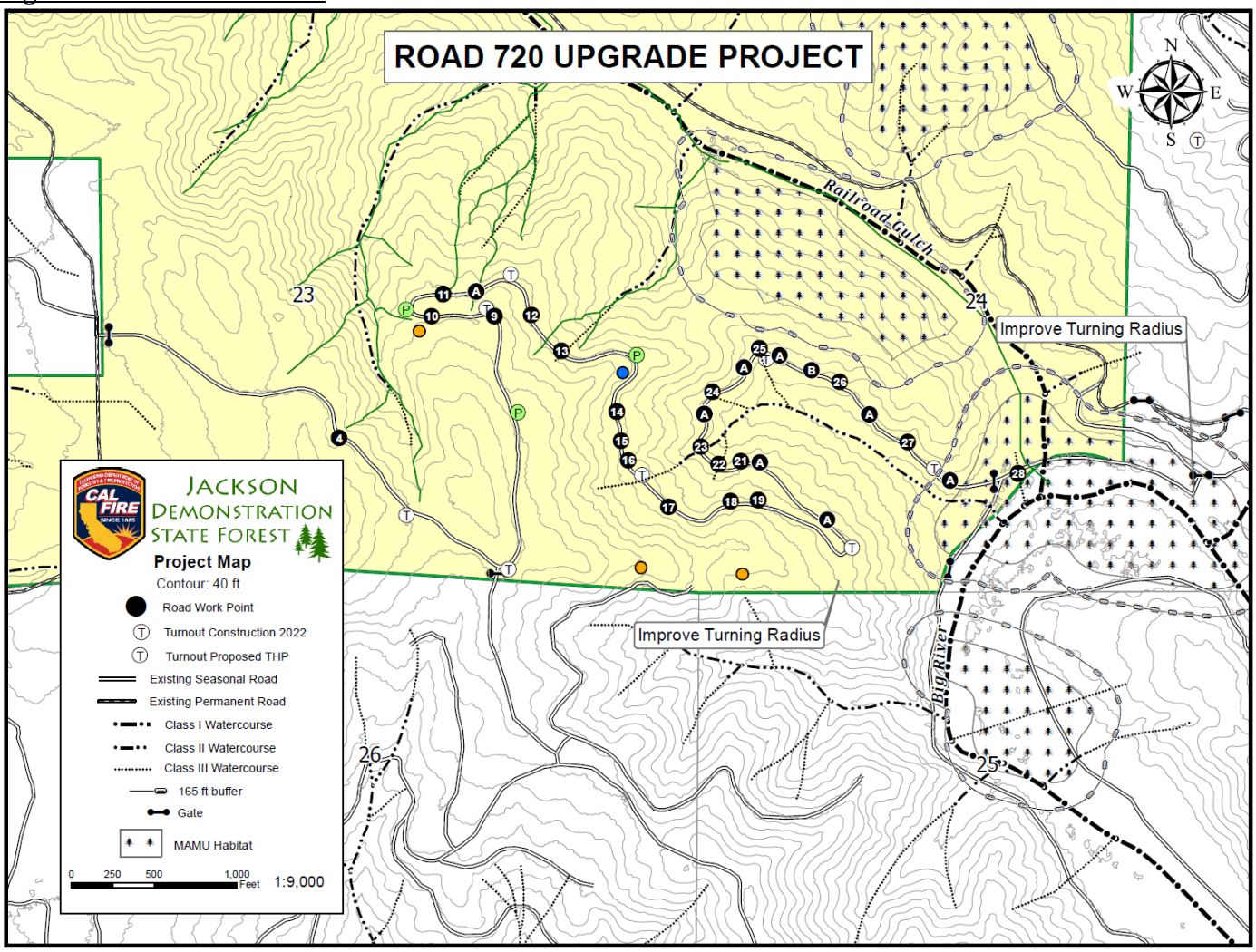


Figure 4. Road 720 Railroad Gulch Crossing (Replacement and Upgrade).

Figure 5. Road 720 Near Big River (Proposed Chip Seal).

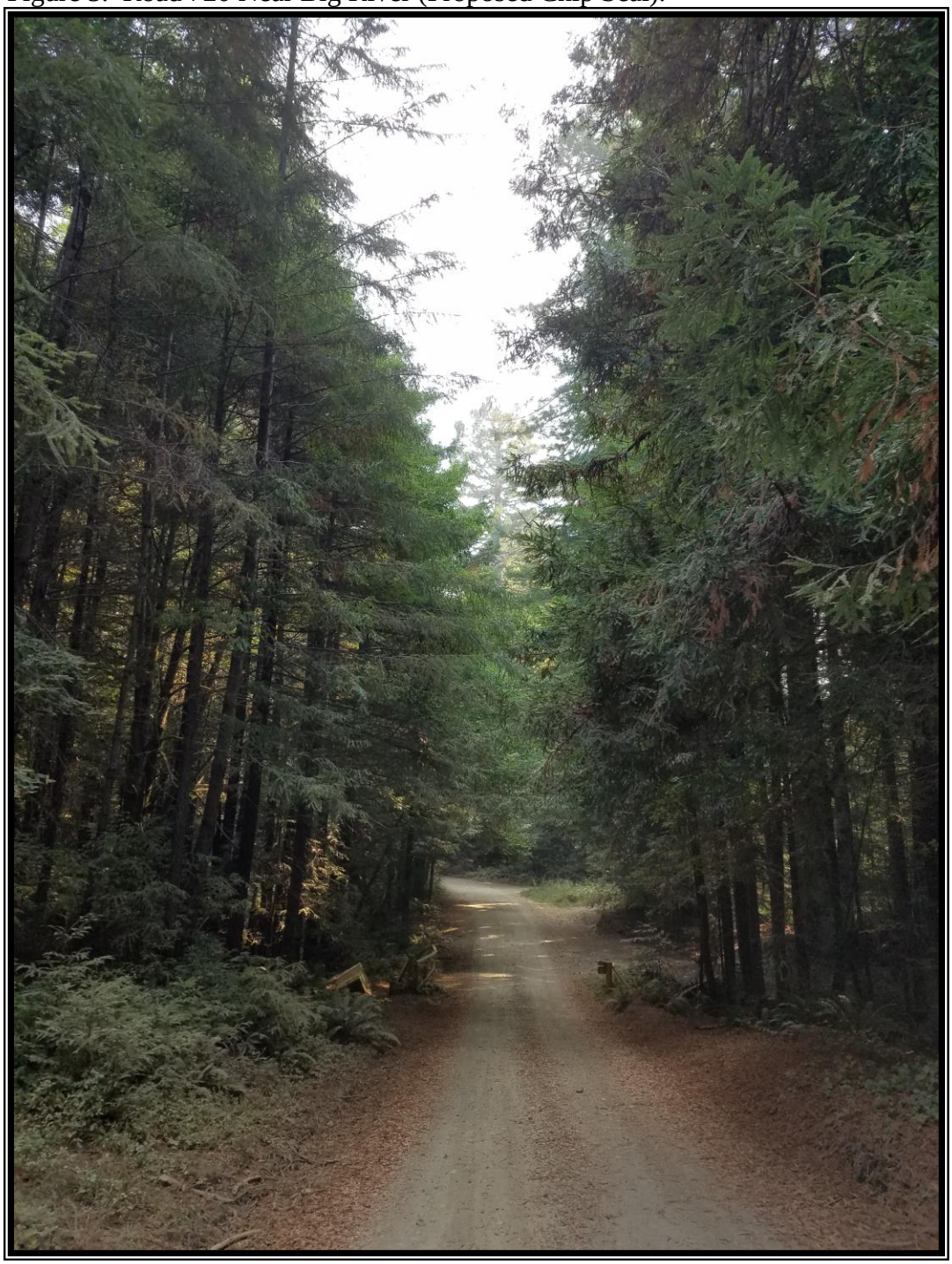
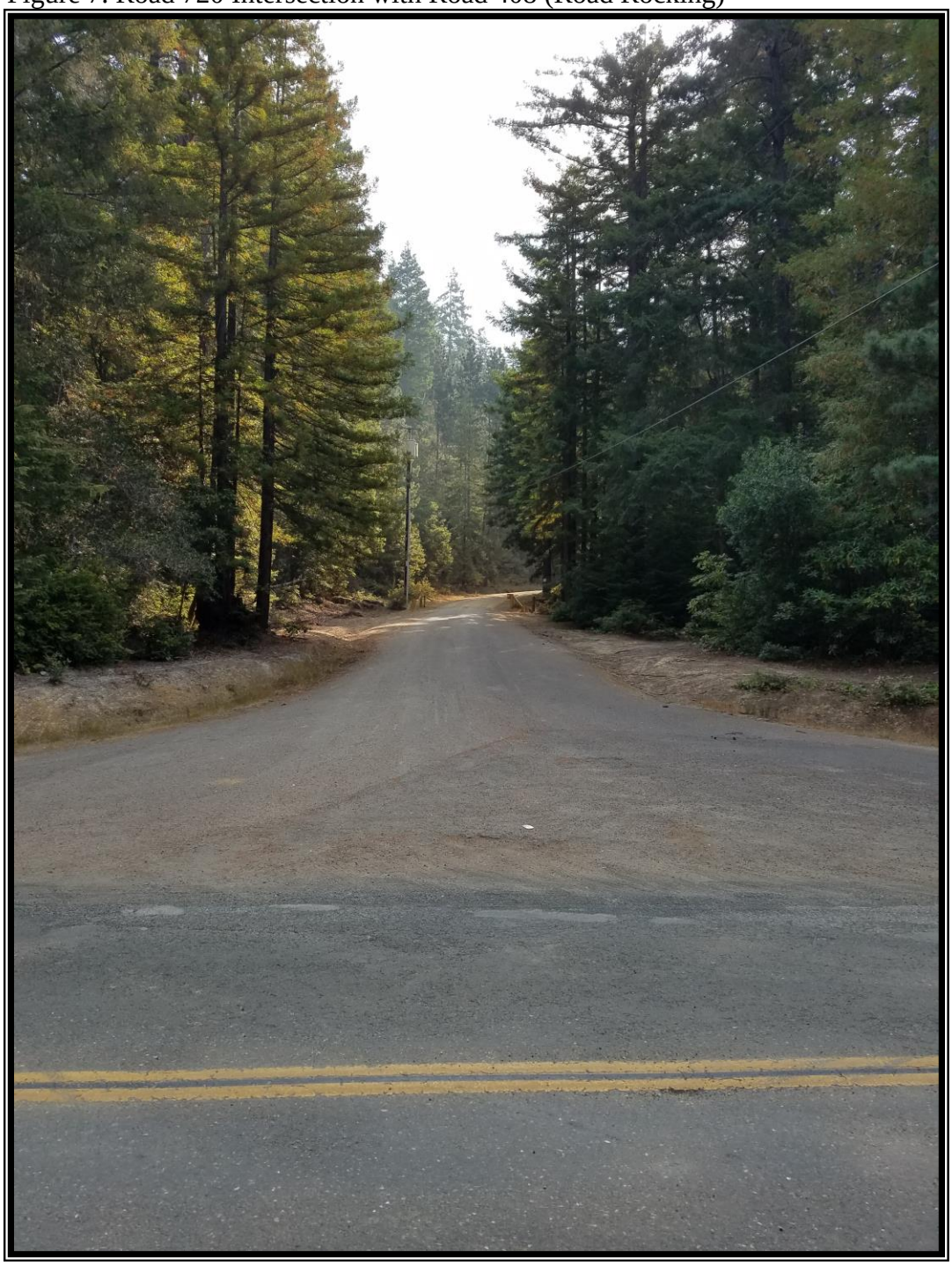


Figure 6. Road 720 Watercourse Crossing (Culvert Replacement and Upgrade)

Figure 7. Road 720 Intersection with Road 408 (Road Rocking)



Conclusion of the Mitigated Negative Declaration

Environmental Permits

The proposed project may require the following environmental permits and CAL FIRE may be required to comply with the following State regulations:

1. CAL FIRE and/or its general engineering contractor will need additional permits for the implementation of this project. This project will require a Lake or Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code and a 401-404 Water Quality Permit.

Mitigation Measures

The following three mitigation measures will be implemented by CAL FIRE to avoid or minimize environmental impacts. Implementation of these mitigation measures will reduce the environmental impacts of the proposed project to a less than significant level.

Mitigation Measure BIO#1: Measures to Protect Potential Marbled Murrelet (MAMU) Habitat Area.
Several mitigation options exist for the project, regarding MAMU Habitat Areas, under specific conditions:

1. If protocol-level (*Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research*, 2003) audio-visual surveys have not been completed around specific MAMU habitat areas leading to a probable absence determination, the project shall avoid the area of a 165-foot buffer around each of the three known MAMU habitat ~~trees~~ areas during the breeding season (March 24th to September 15th). These buffers would ~~do~~ not impact the road construction area.

2. If protocol level, audio-visual surveys are conducted without any murrelet detections, road construction activities may occur during the breeding season as long as the area retains a probable absence clearance, otherwise the 165-foot spatial buffer and limited operating period restrictions shall apply.

Mitigation Measure BIO#2: Measures to Protect Northern Spotted Owls.

1. Project operations shall begin after July 10th to avoid disturbance impacts to northern spotted owl (NSO) specifically if nocturnal surveys have not been completed within 0.25 miles of the project boundary.
2. If surveys are completed following a two-year (Years 1 and 2), six visit (survey visits at least 7 days apart) approach during the NSO survey season (March through August 31), then operations may occur prior to July 10th if probable absence is supported. Subsequent years of surveys (Years 3 thru 5) may utilize a spot-check survey approach (i.e. three surveys at least a week apart) during the NSO survey season and prior to operations to certify the probable absence determination.
3. If NSOs are located as a result of surveys, a 0.25 mile seasonal disturbance buffer will be observed around the roost or nest site (i.e. activity center) during the breeding season and until a determination of non-nesting is made (i.e. a post-May 15th visit determines NSO are not nesting), offspring have fledged and are capable of sustained flight, or July 31st, after which time road work may begin.
4. In general, ~~tree~~ removal~~s~~ of trees greater than 11" dbh should be ~~prohibited~~ avoided to prevent NSO habitat impacts unless pre-project surveys have been conducted to determine probable absence or identify activity centers and implement protection measures. Twenty such trees have been identified and marked for removal. Thus, this action will be limited in extent to what is necessary for installing

culverts, improving turning radius, and constructing turnouts according to safety and road specifications.

~~5. Project operations shall begin after July 10th to avoid disturbance impacts to northern spotted owl (NSO). Tree removals of trees greater than 11" dbh should be prohibited to prevent NSO habitat impacts.~~

Mitigation Measure BIO #3: Measures to Protect Water Quality

1. Road construction operations shall cease during periods of precipitation (rain and/or showers).

2. No heavy equipment operation shall occur after an accumulated 0.25 inches of precipitation within a 24-hour period.

3. Heavy equipment operation may resume after precipitation ceases and a stable operating surface exists in the area of operation.

4. All exposed and disturbed soils (other than rock) shall be stabilized with a layer of clean rice straw mulch with an average coverage of 95% and 4 inches thick.

5. The outer edge of the work area where water flow is directed or channeled, or both, shall have straw wattles installed.

Mitigation Measure BIO#4: Pre-Construction Nesting Survey

1. Conduct a pre-construction nesting bird survey of all suitable habitat on the project site within 7 days prior to commencement of construction during the nesting season (February 1 through August 31).

2. If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a qualified biologist (or forester) in accordance with the California Department of Fish and Wildlife (CDFW) recommendations for buffer distances relative to the species identified. Once construction activities commence on-site, all nests will be continuously monitored by a qualified biologist (or forester) to detect any behavior changes as a result of construction of the proposed project. If behavioral changes are observed that may result in adverse effects to the success of breeding, the work causing the change shall cease and consultation with CDFW shall be initiated to identify potential avoidance and minimization measures. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist (or forester). Once the young are independent of the nest, no further measures are necessary and construction may commence.

Mitigation Measure CR#1: Accidental Discovery

Should unanticipated discoveries of cultural resources occur during project initiation, then all work within 100 feet must halt and a CAL FIRE archaeologist shall be immediately contacted to identify potential avoidance and minimization measures or other mitigation measures that will mitigate significant effects to a less than significant level.

If the newly discovered site is Native American archaeological or cultural site, the CAL FIRE archaeologist shall notify the appropriate Native American tribal group and the Native American Heritage Commission, if appropriate.

Summary of Findings

This IS-MND has been prepared to assess the project's potential effects on the environment and an appraisal of the significance of those effects. Based on this IS-MND, it has been determined that the proposed project will not have any significant effects on the environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project will have no effect related to hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, and service systems.

2. The proposed project will have a less than significant impact on aesthetics, agriculture and forest resources, air quality, geology and soils, greenhouse gas emissions, water quality, noise, traffic and transportation, and mandatory findings of significance.

3. Mitigation is required to reduce potentially significant impacts related to biological resources and cultural resources.

The initial study-environmental checklist included in this document discusses the results of resource-specific environmental impact analyses which were conducted by the Department. This initial study revealed that potentially significant environmental effects could result from the proposed project; however, CAL FIRE revised its project plans and has developed mitigation measures which will eliminate impact or reduce environmental impacts to a less than significant level. CAL FIRE has found, in consideration of the entire record, that there is no substantial evidence that the proposed project as currently revised and mitigated would result in a significant effect upon the environment. The IS-MND is therefore the appropriate document for CEQA compliance.

INITIAL STUDY/ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION	
1. Project Title:	Jackson Demonstration State Forest Rock Quarry Development Project
2. Lead Agency Name and Address:	California Department of Forestry and Fire Protection 2180 Harvard Street, Suite 200 Sacramento, CA 95815
3. Contact Person and Phone Number:	Christina Snow (916) 324-1639
4. Project Location:	Jackson Demonstration State Forest, Mendocino County
5. Project Sponsor's Name and Address:	N/A (CAL FIRE is project sponsor and lead agency)
6. General Plan Designation:	Timberland Production
7. Zoning:	Unclassified-State-owned property
8. Description of Project: See Pages 6-8 of this document	
9. Surrounding Land Uses and Setting:	Refer to page 50 of this document
10: Other public agencies whose approval may be required:	See page 30 of this document

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below are the ones which would potentially be affected by this proposed project and were more rigorously analyzed than the factors which were not checked. The results of this analysis are presented in the detailed Environmental Checklist which follows.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Geology / Soils
☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials	☐	Hydrology / Water Quality
☐	Land Use / Planning	☐	Mineral Resources	☐	Noise
☐	Population / Housing	☐	Public Services	☐	Recreation
☐	Transportation / Traffic	☐	Utilities / Service Systems	☐	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. ☐

6/22/18

Helge Eng, Deputy Director, Resource Management
Department of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

Date Signed

ANALYSIS OF POTENTIAL ENVIRONMENTAL IMPACTS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Will 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) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Environmental Setting

The visual character surrounding the project site (Road 720) is coast redwood-Douglas-fir forest. Due to the size of the JDSF, a general lack of developed facilities, and the dense redwood forest that buffers views from popular forest roads, the scenic integrity of JDSF is relatively high.

During the past decade, campgrounds, picnic areas, designated trails, and other high-use recreational areas have been buffered from the visual impacts of even-aged timber management activity. Views of mature forest have generally been maintained adjacent to most of these locations. In addition, the spatial allocation of timber management systems has been designed to maintain forested views from much of Highway 20 and other popular travel corridors, as well as from the adjacent State Parks and nearby rural residential properties.

Despite the scenic nature of the JDSF, Mendocino County and the redwood forest region in general, human disturbance to the natural environment is a common sight, both within and around JDSF. This disturbed landscape is part of the existing condition that is familiar to forest visitors and residents of the region. Logging roads, tree stumps, and even-aged treatment areas are common sights for visitors to managed forests like JDSF.

Discussion

a) Will the project have a substantial adverse effect on a scenic vista?

Although the entire area has a high scenic quality, the project involves improving the current dirt road to ensure continued access to recreational areas and is not proposing any other development that would impact the scenic nature of the area. A less than significant impact would occur.

b) Will the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project involves upgrading an existing road with no proposed alterations to rock outcrops or historic buildings. As part of the project, culverts would be replaced with larger ones to improve water flow and fish passage. As a result of the culvert replacement some trees surrounding the culverts may have to be removed. Currently, 20 trees > 11" dbh have been identified and marked for removal to facilitate the culvert replacement, construction of turnouts, and enhance the turning radius of specific road segments. ~~Most the trees near the culverts are young trees, although there may be more mature ones that could be removed.~~ The tree removal would not substantially damage the scenic quality of the area as the road is surrounded by forest (see Figure 3 – 6). The project is not within view a State scenic highway. Impacts would be less than significant.

c) Will the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project involves upgrading an existing road with no proposed significant alterations to the existing visual character or quality of the site or surroundings. As indicated above, some tree removal may be necessary to upgrade the culverts. No significant impact would occur.

d) Will the project create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?

The upgrading of the existing road will not create any light or glare. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest 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, as updated) prepared by the California Department 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				

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §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?	☐	☐	☐	☒

Environmental Setting

The Mendocino County General Plan land use designation for JDSF is Forest Lands and the zoning is Timberland Production Zone (TPZ). The land uses are restricted to growing and harvesting timber, as well as certain compatible uses, and there is a presumption that timber harvesting will occur. The forest lands designation applies to land suited for the growing, harvesting, and production of timber and timber-related products. Uses consistent with the Forest Lands designation include forestry, timber processing, agricultural uses, cottage industries, residential uses, recreation, and uses determined to be related to and compatible with forestry.

JDSF is predominantly forested land. Although agricultural use is allowed within TPZ zoned and forest land designated land, no portion of JDSF land is specifically classified as agricultural land nor has it historically been used for non-timber related agricultural purposes.

Discussion

a) Would the project 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?

The project is located within the JDSF. JDSF does not contain any farmlands and no impact would occur to farmland.

b) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

The project area is entirely within lands that are forested and zoned TPZ thus, would not conflict with any zoning for agriculture use or a Williamson Act contract. No impact would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))

The project is located on lands that are zoned TPZ and is consistent with the current zoning. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The project is located on lands zoned TPZ that allows for timber harvesting and associated activities. Although the project may remove some trees at culvert and turnout locations, the tree removal is minor in nature and is necessary for access for recreation and camps. The tree removal would not result in substantial loss of forest land and the use would remain the same. Impacts are less than significant.

e) Would the project 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?

The project does not involve other changes that would result in the conversion of farmland to non-agricultural use. The tree removal that would occur as a result of the culvert replacements and turnout construction would impact predominately young trees and would not convert the land to non-forest use. The roads within the JDSF are consistent with activities allowed in managed forests. Impact would be less than significant.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The JDSF is located in Mendocino County within the North Coast Air Basin, which includes Del Norte, Trinity, Humboldt, Mendocino and part of Sonoma County.

The project site is located within the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD). Within the MCAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide, sulfur dioxide, particulate matter (PM_{10}, $PM_{2.5}$), and lead have been set by both the state of California and the federal government. The state has also established standards for sulfate and visibility. The Mendocino County air quality status for 2012 is summarized in Table A.

Table A: Mendocino County Air Quality Attainment Status

Pollutant	State	Federal
Ozone (8 hour)	Attainment	Unclassified/Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Attainment	Unclassified/Attainment

Source: California Environmental Protection Agency, Air Resources Board, 2012.

As shown in Table A, Mendocino County is nonattainment for the PM10 standard (particulate matter less than 10 microns in size). The primary manmade sources of PM10 pollution in the area are wood combustion (woodstoves, fireplaces, and outdoor burning), fugitive dust, automobile traffic, and industry. PM10 levels in Mendocino exhibit a seasonal pattern. PM10 concentrations typically increase during the winter months

and are at their lowest levels during the summer months. Results of a North Coast Air Quality Management District study (NCUAQMD, 1995) showed that woodstove emissions during the winter months, when added to the ever-present emissions of vehicles and sea salts, are the primary cause of high PM10 values in the north coast.

Particulate matter from diesel engines has been identified as being of concern for its toxic qualities. While diesel engine emissions are a small part of total PM emissions in Mendocino County, they are of serious concern because they are an identified air ~~toxic~~ toxin. The primary sources of PM10 in Mendocino County are area sources, such as dust from roads, agriculture, and residential fuel combustion.

Emissions from the JDSF are predominantly PM10, resulting from timber harvesting activities and vehicle travel on roads within the JDSF. These activities result in particulate matter and gaseous pollutant emissions.

The air quality effects associated with the JDSF can be divided into several distinct categories of emissions:

- Fugitive dust from paved and unpaved roads.
- Emissions from road construction.
- Gaseous emissions from fuel combustion.
- Emissions from slash burning.

Fugitive dust is generated by vehicle travel on paved and unpaved roadways, grading and site preparation, road construction, and any other activity that disturbs surface soils. Fugitive dust is a source of fine particulate emissions or PM10.

Discussion

a) Will the project conflict with or obstruct implementation of the applicable air quality plan?

The proposed project is a road improvement project and would not increase capacity. Diesel construction equipment activities associated with the proposed project would be confined to resurfacing, culvert replacement, and stabilizing activities and would take approximately two months to complete. The resurfacing (chip seal) would prevent future dust and sedimentation from occurring and would reduce PM10 emissions from vehicle travel on unpaved roads.

This project is expected to produce small amounts of dust due to the ground surface disturbance caused by heavy equipment operation. However, the amount of dust generated is not anticipated to be significant as best management practices (BMPs) would be implemented according to MCAQMD Rule 1-430 Fugitive Dust Emissions as applicable. The proposed project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

b) Will the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The short duration of the road construction operation activities and the small size of the project area would not violate any air quality standard or contribute substantially to an existing air quality violation. Impacts are less than significant.

Long-Term (Operational) Emissions. Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase vehicle trip emissions. No stationary sources are associated with the proposed project. The proposed project would not generate new vehicle trips or increase vehicle miles traveled. The chip seal of the dirt Road 720 would decrease future PM10 emissions from travel on unpaved roads and the active abandonment (closure) of dirt Road 700 would prevent future PM10. Therefore, long-term operation of the proposed project would not contribute substantially to an existing or projected air quality violation.

Short-Term. Air pollutant emissions associated with the proposed project would occur over the short-term in association with construction activities, such as grading and vehicle/equipment use.

Construction activities generate exhaust emissions from utility engines, on-site heavy duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting construction workers. The use of construction equipment would result in localized exhaust emissions. The types of heavy equipment expected to be used on this project include excavators, tractors, dump truck, compactors and road graders. The project is anticipated to take approximately two months. Due to the limited extent of construction activities, the projected short-term emissions of criteria pollutants from project construction are expected to be below emissions thresholds.

Small amounts of dust due to the ground surface disturbance caused by heavy equipment operation would occur during construction. Fugitive dust is caused by grading, track equipment, exposed stockpiles of soil, unimproved roads/parking areas. This project proposes to use heavy equipment in the upgrade and re-construction of the existing road and watercourse crossings. The heavy equipment operation area is limited in nature and will be done over a limited time frame (two-month period) and the operations would include BMPs.

In 2005, the MCAQMD mapped “Areas that may contain naturally occurring asbestos (NOA)” within Mendocino County. The proposed project site is located outside of an area that may contain serpentinite and/or ultramafic rock. Ultramafic rock may contain chrysotile asbestos or other asbestos minerals which is a human health hazard when airborne. The project would not involve activities within an area that would release NOA.

Impacts are expected to be less than significant.

c) Will the project 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

As described above in Response III(b), the proposed project would result in temporary increases in air pollutants. These increases would not result in a cumulatively considerable net increase of any air pollutants and impacts would be less than significant.

d) Will the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as young children, the elderly, and people with illnesses.

The project area is located within a designated state forest and would not expose sensitive receptors to significant pollutant concentrations. No impact would occur.

e) Will the project create objectionable odors affecting a substantial number of people?

The project would not create any objectionable odors that would affect a substantial number of people in the area. The diesel emissions from the operation of heavy equipment may create an odor, but the limited use of such equipment and the short duration of the activities would not create a significant impact. Impacts are less than significant.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Will 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 Game or the 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, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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

Watersheds

The JDSF ownership includes area within the Noyo and Big River watersheds. The South Fork of the Noyo River (SFNR) and North Fork of Big River, including Chamberlain and James Creeks, are the primary watersheds that drain the forest. The SFNR is a major tributary to the Noyo River, which drains to the Pacific Ocean near Fort Bragg. The vast majority of the SFNR watershed is within the state forest. Management activities conducted within the state forest contribute to the overall water quality conditions in the lower Noyo, below its confluence with SFNR. The SFNR basin is characterized by steep mountainous terrain with confined valleys. The headwaters of the SFNR have more moderate terrain.

The Big River watershed is 181 mi^2 in size, flowing into the Pacific Ocean near the town of Mendocino. The elevation ranges from sea level to 1,556 feet and consists of moderate to extremely rugged terrain (Matthews, 2001). Chamberlain and James Creek are major tributaries to the North Fork of the Big River. The majority of these tributary watersheds are public lands managed by JDSF. The headwaters of the North Fork of Big River are private forest land and reside upstream from the JDSF boundary. Water from the Upper North Fork Big River flows through JDSF, passes through private forest in the Lower North Fork of the Big River, before joining the mainstem of the Big River.

Lower Caspar, Hare, Jughandle, and Mitchell creeks also receive water from JDSF. These areas are owned by various private landowners. While relatively little of these creeks or their watersheds lie downstream from JDSF, landowners in these areas are very concerned about the condition of their watersheds.

Within JDSF, the estimated stream miles for Class I (fishbearing), II, and III streams are 97 miles (157 km) 186 miles (299 km), and 174 miles (280 km), respectively. Data describing current aquatic and riparian habitat conditions for streams in JDSF were gathered from several sources. The two anadromous salmonid species that occur regularly in the JDSF assessment area, coho salmon and steelhead, are sensitive to freshwater aquatic and riparian habitat conditions that are required for reproduction and rearing.

Vegetation Communities and Habitats

The JDSF has vegetation communities and associations typical of other coastal redwood forests in Mendocino County. The redwood, redwood-Douglas-fir, and redwood-Douglas-fir-hardwood communities comprises the bulk of JDSF vegetation (48,600 acres). Most of the redwood stands found on JDSF are young-growth, but approximately 459 acres of un-entered and residual old-growth forest remains.

Rare or sensitive vegetation types in JDSF include the Mendocino pygmy forest, sphagnum bogs, other wetlands, meadows, and grassy openings. Mendocino pygmy forest, a unique ecological unit recognized by the California Natural Diversity Database (CNDDB) as a sensitive plant community type, occurs in JDSF and adjacent public and private lands. This rare plant community occurs only in coastal Mendocino County. On JDSF, the pygmy forest is concentrated in the western portion.

Native communities dominate the forest; however, isolated populations of introduced species exist. There is a single eucalyptus plantation located in the Caspar Creek watershed. There are scattered remains of logging camps and associated home sites with fruit trees and other introduced vegetation located along the old abandoned railroad grades within the forest. The current flora includes naturalized plants from other areas including some considered to be invasive.

Threatened, Endangered, and Sensitive Species
Several threatened, endangered, and sensitive species that could occur within the JDSF were identified in the JDSF management plan EIR. As part of the implementation of the JDSF management plan and the road management plan project specific review is required. As per the JDSF management plan when suitable habitat is present within or immediately adjacent to the project area, project-planning documentation will include surveys and a discussion of the efforts made to determine presence or absence of the species in question. Avoidance measures and other necessary mitigations will be specified.

Project Site
Road 720 branches east of Little Lake Road for 2.5 miles. A few seasonal streams run northeast across the roadway toward tributaries of the Big River. The project proposes to improve Road 720, a native dirt roadway, and replace eight culverts at watercourse crossings (Class I, II and III watercourses). The JDSF road management plan provides guidance for road improvements. The objective of the Road Management Plan is to ensure that the design, construction, use, maintenance, and surfacing of JDSF roads will minimize sediment delivery to aquatic habitats. Improvement of JDSF roads to reduce sediment yield is needed due to the legacy of a road network partially relying on outdated drainage systems and old segments located along watercourse channels. Numerous studies have shown that forest roads are a source of management-related stream sediment.

Additionally, the road plan provides guidelines for new road construction. The goal of this program is to enhance stream channel conditions for anadromous fish, amphibians, and other sediment-sensitive aquatic organisms by reducing both fine and coarse sediment loading. The management plan also will improve water quality by reducing suspended sediment concentrations and turbidity. In addition, fish passage at Class I crossings will also be assessed and addressed as needed.

The proposed project includes heavy equipment operation to excavate and replace watercourse crossings, grade, spread road rock, and apply road surface treatments. This work involves the minor modification of habitat and noise disturbance. Given the proposed activities, impacts to sensitive biological resources were reviewed and considered.

An inventory and assessment of the biological resources was conducted by the project manager and Tina Fabula, JDSF staff biologist. Informal consultations with CDFW and California Department of Parks and Recreation (January 2017 through March 2018) took place during the preparation of this initial study. CNDDB was reviewed for this project area and the nine USGS quadrangles surrounding the project area. In March and April of 2021, JDSF staff biologist, Robert Douglas, and CDFW assessed marbled murrelet habitat areas in the Railroad Gulch area to better define habitat areas, survey station locations, and the number of surveys required to determine marbled murrelet presence/probable absence. There are four MAMU habitat areas proximal to this project that have been identified for surveys. A new query of the CNDDB was conducted on April 16, 2024 to evaluate the possible presence of any new rare, threatened, and endangered species not identified in the previous IS-MND. This revised report did not identify any new sensitive biological resources within or immediately adjacent to the project area. The sensitive biological resources that were considered for this project included the NSO, marbled murrelet, ~~northern~~ American goshawk, purple martin, white-tailed kite, Sonoma tree vole, and Townsend's big-eared bat, and sensitive plant species identified as potentially occurring in the area.

The scope of the biological review for this project included several on-site visits by the project manager, CAL FIRE staff biologists, and several survey visits by contract biologists.

In the spring and summer of 2017, botanical surveys of Road 720 project area was conducted by Lindsay Ringer of Colibri Ecological Consulting. The project area and surrounding areas were surveyed by Mike Powers, Forester II, for nesting structures used by raptors, nesting birds or the Sonoma tree vole. These survey efforts did not identify any sensitive species or habitat within or surrounding the project area.

Discussion

a) Would the project 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 Game or the U.S. Fish and Wildlife Service?

Marbled Murrelet – Federally threatened, state endangered: habitat scoping: The following known Murrelet habitat lies within the 0.25-mile project buffer.

JDSF: There are three known ~~marbled~~ MAMU habitat ~~trees~~ areas ~~in the lower area of the buffer~~ associated with the Road 720 Upgrade Project. JDSF consultants Cota and Papke surveyed a larger area of Little North Fork of Big River riverside forest in 1993, but no effort to determine whether habitat was actually present, and no murrelet detections were made. No murrelet detections were made during the murrelet survey at the trees to the north (and outside of the 0.25-mile buffer) during surveys in 2012/13 (see map no. 1). Tina Fabula, former JDSF biologist, and CDFW conducted several habitat assessments along Big River in 2020 and identified MAMU habitat trees in two areas that are now identified as Railroad—South and Railroad—East habitat areas. In 2021, Robert Douglas, the new JDSF biologist, reviewed these habitat areas with CDFW and identified a third habitat area along the Boiler Trail known as Railroad—Main. These three habitat areas, plus a fourth near Road 700, were surveyed in 2021 and 2022 without any murrelet detections. These same four areas are being surveyed for a third consecutive year in 2023. ~~Mike Powers (Forester II) from CAL FIRE traversed down Rd 720 on 6-30-17 and walked into state parks to the Boyles swimming hole and along Road 701 looking for potential habitat trees. No habitat was seen except for the three trees noted above.~~

2) State parks' staff Terra Fuller was contacted regarding potential MAMU trees on state Park land in the 0.25 mile project buffer. Terra notes that most land on state parks in the 0.25-mile project buffer has been harvested quite thoroughly. The only area that may have trees with limbs large enough is down by the eastern end of the project near the Little North Fork of Big River. However, disturbance due to heavy public use in that area may interfere with any potential for nesting murrelets.

3) Existing Road Use (disturbance): Both Road 700 and Road 720 are open to public use. Trucks, buses and multiple passenger vehicles use Road 700 daily, and often at night. Road 720 is open to the public during the dry months. Existing ambient noise along both roads would likely be above ambient (ambient = dB <50) (US Fish & Wildlife 2006). Review for the previous murrelet consultation with CDFW for Railroad Gulch THP (CDFW 12-R1-CTP-10MAMU- May 2012) determined the disturbance from existing road use along Road 700 would bring the ambient noise level in the general area of Road 700 to low (61-70 dB) and the buffers for louder noises from heavy equipment operations were reduced accordingly. Estimated noises from road construction were classified as high (81-90 dB) and required a 165-foot buffer during the murrelet breeding season.

Conclusion-Recommendation: Using the same ambient and project-generated noise levels applied for the Railroad Gulch timber harvesting plan - the project should avoid the area of a 165-foot buffer around each of the three known MAMU habitat trees during the breeding season (March 24th to September 15th) if survey clearance supporting probable absence has expired. Observing the spatial buffer and limited operating period will be a default option in lieu of protocol-level surveys. These buffers do not impact the road construction area (see Mitigation Measure BIO#1).

Northern Spotted Owl– federally threatened, state threatened (disturbance impacts): The 0.25-mile disturbance buffer area of the project was evaluated. There are no known owl activity centers in the project buffer. Surveys have not been conducted in the area of Road 720. Prior surveys were conducted in 2013-2014 within the southern portion of Road 700 and two female NSO detections were made. Other surveys were conducted by California on Road M14 with NSO surveys in 2015-2016 and did not identify any NSO activity centers. The Railroad Gulch area, including Roads 700 and 720, were surveyed six times in 2021 and 2022 during the NSO breeding season. In 2023, these areas received three spot check surveys. During the past three years, no NSOs have been detected in the Railroad Gulch area.

Conclusion-Recommendation: The standard date for road use, maintenance, and map point work within NSO core use area ~~for timber harvesting plans when NSO surveys have not been undertaken work~~ is July 10th. However, CDFW indicated that a proposed start date of July 10th without surveys for the revised Road 720 Upgrade project may be outside the intent and scope of the USFWS regional guidance (Attachment A: Take Avoidance Analysis—Coast Redwood Region); thus, CDFW recommended observing a July 31st start date (instead of July 10th) in the absence of surveys. We hereby incorporate this recommendation for the Road 720 Upgrade Project when surveys have not been conducted for the project area. The project could begin during the breeding season ~~July 10th~~ and avoid disturbance impacts to NSO if it is determined that NSOs are unlikely to be present in the area; or if NSOs are present, either their activity center is located a sufficient distance away from noise disturbance or they are determined to be non-nesting. If the NSO are nesting and are within 0.25 mile of activities, then a default time for starting road work is July 31st, without any additional survey information (see Mitigation Measure BIO#2 for more details).

The forest areas surrounding the project are classified as foraging or nest-roost habitat. Only trees greater than 11-inches diameter at breast height (dbh) are considered to potentially provide habitat to NSO.

Conclusion-Recommendation: NSO surveys and barred owl (*Strix varia*) removal have occurred in this area for the past three years; and the number of trees > 11" dbh proposed for removal are limited (20) and disbursed along the road side throughout the project area. Given these facts, it is unlikely that the proposed work, including the focused tree removal, will have any significant adverse effects on NSOs or nesting/roosting habitat.

Revised tree removals are indicated in the table below:

TREE REMOVAL	
Douglas-fir	
DBH Class	Trees Marked for Removal
12	6
14	0
16	4
18	2
20	2
Redwood	
DBH Class	Trees Marked for Removal
12	1
14	1
16	2
18	2

To minimize and/or avoid impacts to biological resources the following shall be implemented.

Mitigation Measure BIO#1: Measures to Protect Potential Marbled Murrelet Habitat Area.

1. If protocol-level (*Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research*, 2003) audio-visual surveys have not been completed around specific MAMU habitat areas leading to a probable absence determination, the project shall avoid the area of a 165-foot buffer around each of the three known MAMU habitat areas during the breeding season (March 24th to September 15th). These buffers would not impact the road construction area.

2. If protocol level, audio-visual surveys are conducted without any murrelet detections, road construction activities may occur during the breeding season as long as the area retains a probable absence clearance, otherwise the 165-foot spatial buffer and limited operating period restrictions shall apply.
3. ~~The project shall avoid the area within a 165-foot buffer around each of the three known MAMU habitat trees during the breeding season (March 24th to September 15th). These buffers do not impact the road construction area.~~

Mitigation Measure BIO#2: Measures to Protect Northern Spotted Owls.

1. Project operations shall begin after July 31st to avoid disturbance impacts to northern spotted owl (NSO) specifically if nocturnal surveys have not been completed within 0.25 miles of the project boundary.

2. If surveys are completed following a two-year (Years 1 and 2), six visit (survey visits at least 7 days apart) approach during the NSO survey season (March through August 31), then operations may occur prior to July 31st if probable absence is supported. Subsequent years of surveys (Years 3 thru 5 beyond) may utilize a spot-check survey approach (i.e. three surveys at least a week apart) during the NSO survey season and prior to operations to certify the probable absence determination.

3. If NSOs are located as a result of surveys, a 0.25 mile seasonal disturbance buffer will be observed around the roost or nest site (i.e. activity center) during the breeding season and until a determination of non-nesting is made (i.e. a post-May 15th visit determines NSO are not nesting), offspring have fledged and are capable of sustained flight, or July 31st, after which time road work may begin.

4. In general, ~~tree~~ removal~~s~~ of trees greater than 11" dbh should be ~~prohibited~~ avoided to prevent NSO habitat impacts unless pre-project surveys have been conducted to determine probable absence, or identify activity centers and implement protection measures. Twenty such trees have been identified and marked for removal. Thus, this action will be limited in extent to what is necessary for installing culverts, improving turning radius, and constructing turnouts according to safety and road specifications.

   ~~Project operations shall begin after July 10th to avoid disturbance impacts to northern spotted owl. Tree removals of trees greater than 11" dbh shall be prohibited to prevent northern spotted owl habitat impacts~~.

   With implementation of BIO#1 and 2, impacts would be less than significant.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Implementation of this road upgrade project will involve the operation of heavy equipment and disturbance of soils. Most the road project is outside of riparian areas. However, some work would occur within the riparian areas of Railroad Gulch and Big River. All the streams are intermittent except for Railroad Gulch. An application for 1602 permit has been submitted to CDFW to obtain a general Lake and Streambed Alteration Agreement (#1600-2018-0236-R1, 4/4/18) for work performed within the riparian areas. This permit would be in place prior to project initiation.

The purpose of this upgrade project is to improve the existing road to eliminate sediment impacts to the watercourses of the watershed. However, implementation of this project will involve construction activities that will disturb soils in areas that could erode into watercourses.

In order to minimize or avoid impacts to water quality from the operation of heavy equipment and trucking of rock materials the following shall be implemented.

Mitigation Measure BIO #3: Measures to Protect Water Quality

1. Road construction operations shall cease during periods of precipitation (rain and/or showers).

2. No heavy equipment operation shall occur after an accumulated 0.25 inches of precipitation within a 24-hour period.

3. Heavy equipment operation may resume after precipitation ceases and a stable operating surface exists in the area of operation.

4. All exposed and disturbed soils (other than rock) shall be stabilized with a layer of clean rice straw mulch with an average coverage of 95% and 4-inches thick.

5. The outer edge of the work area where water flow is directed and /or channeled shall have straw wattles installed.

With implementation of BIO#3, impacts would be less than significant.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Portions of the road upgrade project occur within the riparian areas of Railroad Gulch and Big River. The replacement of the Railroad Gulch crossing and modifications of the road prism in areas parallel to Big River are proposed. Consultation with water quality staff from the North Coast Regional Water Quality Control Board has been done to determine the appropriate permitting and measures to implement for potential impacts. The scope and purpose of this project qualifies to be permitted through the Small Habitat Restoration Project General Water Quality Certification Program (Order # SB12006GN). CAL FIRE will obtain a 401 General Water Quality permit from North Coast Regional Water Quality Control Board (NCRWQCB) prior to project construction.

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?

The proposed project occurs within a forested landscape, and as such raptor bird species are likely using the surrounding forest. Although recent visual inspection of the trees adjacent to the project area and surrounding areas did not identify any nest structures there is a possibility that this could change prior to construction. ~~The project would not begin prior to July 10th due to Mitigation Measure BIO#1 for northern spotted owls.~~ Nesting season for many birds extend until the end of August. As a result, the following mitigation measure shall be implemented to ensure impacts are less than significant. There are no other known migratory corridors located at the project area or immediately adjacent.

Mitigation Measure BIO#4: Pre-Construction Nesting Survey

1. Conduct a pre-construction nesting bird survey of all suitable habitat on the project site within 7 days prior to commencement of construction during the nesting season (February 1 through August 31).

2. If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a qualified biologist (or forester) in accordance with the CDFW recommendations for buffer distances relative to the species identified. Once construction activities commence on-site, all nests will be continuously monitored by a qualified biologist (or forester) to detect any behavior changes as a result of construction of the proposed project. If behavioral changes are observed that may result in adverse effects to the success of breeding, the work causing the change shall cease and consultation with CDFW shall be initiated to identify potential avoidance and minimization measures. The buffer shall be maintained until the

fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist (or forester). Once the young are independent of the nest, no further measures are necessary, and construction may commence.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The project would not conflict with any local policies or ordinances protecting biological resources. The proposed project is entirely within state owned lands. No impact would occur.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The proposed project site is not within the boundaries of a Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan. The project is located within the JDSF. In addition, the project does not conflict with the Jackson Demonstration State Forest Management Plan (2008). No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Will the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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 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)?	☐	☐	☐	☒

f) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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 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)?	☐	☐	☐	☒
g) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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: 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 Section 5024.1?	☐	☐	☐	☒

Environmental Setting

As part of the JDSF Management Plan (2008) development and corresponding EIR, a review of appropriate archaeological, historical, and ethnographic literature as well as documents on file were reviewed. Consultation with the Native American Heritage Commission, CAL FIRE's Native American Advisory Council, and local tribal groups listed on CAL FIRE's Native American Contact List occurred.

A total of 192 heritage resources have been identified on JDSF, including 19 recorded prehistoric archaeological sites (five of which also have historic era components), one recorded Native American traditional cultural property, one recorded prehistoric isolate, 40 recorded historic sites (five of which also have prehistoric components), nine recorded historic era isolates and 127 historic sites that were identified from historic map research and oral interviews conducted by Gary and Hines (1993).

A preliminary inventory of the JDSF historic resources, based on archival and field research, was reported by Gary and Hines (1993). Their report table listed five prehistoric archaeological sites that contain historic components, 15 recorded historic sites, five recorded historic isolates, and 132 sites documented through historic records research. Research conducted indicated the existence of an additional 20 recorded historic archaeological sites, four additional recorded historic isolates, and site records for five of the historic resources listed on the Gary and Hines (1993) JDSF inventory of historic resources.

Additionally, CAL FIRE's statewide Management Plan for Historic Buildings and Archaeological Sites (Foster and Thornton 2001), and its accompanying EIR (Foster and Sosa 2001) prescribe general measures for identifying, evaluating and managing heritage resources on CAL FIRE lands statewide including some specific management strategies for heritage resources located within JDSF. This management plan was initiated in 1991 pursuant to Executive Order W-26-92, CEQA and PRC Section 5020 et seq., in coordination with the State Historic Preservation Office (SHPO) and in consideration of comments from the interested public and Native American Tribes and organizations. For each of CAL FIRE's properties, including JDSF, the plan summarizes the inventory of recorded historic buildings and prehistoric and historic archaeological sites; identifies those buildings and sites determined to be significant per National and State Registers criteria in consultation with SHPO (incomplete for JDSF, among other places); establishes decision making criteria for managing its historic buildings and identifies those targeted for preservation; describes CAL FIRE's archaeology program, role in fire protection, Native American gathering policy, and artifact collections; and establishes specific management objectives and measures for each of its holdings including JDSF.

- Related management actions adopted for JDSF under the statewide management plan and EIR (Foster and Thornton 2001:68; Foster and Sosa 2001) include:

    - All significant sites will be identified in timber harvesting plans and protected in accordance with the *Forest Practice Rules* (Action #1 in Foster and Thornton 2001:68);

    - An archaeological survey and records check will be conducted for all projects (Action #2 in Foster and Thornton 2001:68); and When new sites are identified, they will be fully recorded to professional standards (Action #3 in Foster and Thornton 2001:68).

The statewide management plan and EIR (Foster and Thornton 2001:68; Foster and Sosa 2001) asserts the following will be carried out for JDSF: CAL FIRE shall develop a plan to manage archaeological sites bisected by regularly maintained roads, to mitigate impacts to sites caused by regular road grading and maintenance. The JDSF management plan identified the following mitigation to be carried out to prevent significant impacts from occurring.

Prior to the conduct of potentially damaging project activity and in consultation with CAL FIRE professional archaeologists, apply appropriate research and survey methods to identify heritage resources along roads that have potential to be impacted by regular road maintenance and use of existing rock borrow pits and enact protection measures (e.g., avoid grading, cover with imported soils or asphalt, monitor operations) to minimize or avoid impacts to significant sites. Document heritage resources study findings using the CAL FIRE archaeological report form or other report format consistent with Office of Historic Preservation (1989) guidelines. In concert with the present practice of avoiding impacts to known heritage resources from regular road maintenance, apply the standard steps prescribed in *Archaeological Review Procedures for CAL FIRE Projects* (Foster and Pollack 2010) to avoid impacts to known heritage resources from maintenance of related road appurtenances (e.g., culverts, bridges) and existing borrows pits. Prior to any road grading work, the current database of heritage resources shall be checked to determine if any known sites exist along the road segments to be treated, and an archaeological survey of the road segments shall be conducted by either a professional archaeologist or permanent forestry field staff with current archaeological training. The results of road segment surveys will be added to the heritage resources database and referred to for determining which road segments can undergo periodic road maintenance activities without additional archaeological considerations and which segments need ongoing monitoring. Specific mitigation measures to record or protect the sites, or both, will be developed.

In accordance to the JDSF management plan an archaeological survey and report should be prepared for projects that are proposed in specific areas. CAL FIRE Associate State Archaeologist Ben Harris was consulted regarding potential cultural resource impacts related to this proposed project. The JDSF ownership-wide records search (ref. NWIC File #16-2153) was reviewed, and Assembly Bill 52 and Native American Contact List contacts were consulted via letters regarding the proposed project. Surveys were conducted by Mike Powers on August 24, 2017, and October 27, 2017. Results of these surveys were reviewed by Ben Harris. No cultural resources (archaeological or historical) were identified that will be significantly impacted by the implementation of this project.

Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

The historic Big River railroad grade is in the same location as Road 720 where it parallels Big River. The proposed project does not propose to alter the current location of the road alignment and no other remnants of the railroad exist that need to be protected. No impact would occur.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

There are no known archaeological resources within or adjacent to the project area. The area has been previously disturbed when Road 720 was constructed. However, there is always the potential for unknown archaeological resources to be unearthed during ground disturbing activities. With implementation of the following mitigation measure, impacts to unknown archaeological resources would be less than significant.

Mitigation Measure CR#1: Accidental Discovery
Should unanticipated discoveries of cultural resources occur during project initiation, then all work within 100 feet must halt and a CAL FIRE archaeologist shall be immediately contacted to identify potential avoidance and minimization measures or other mitigation measures that will mitigate significant effects to a less than significant level.

If the newly discovered site is Native American archaeological or cultural site, the CAL FIRE archaeologist shall notify the appropriate Native American tribal group and the Native American Heritage Commission, if appropriate.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known paleontological resources or sites or unique geologic features within or adjacent to the project area. No impact would occur.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

There are no known human remains, including those interred outsides of formal cemeteries known to exist within or adjacent to the project area. No impact would occur.

e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource pursuant to Public Resources Code Section 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 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)?

AB 52 (2014) relating to Native Americans establishes a process for consulting with Native American tribes and groups regarding these resources. Tribal cultural resources are "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe….". A tribal cultural resource must be on, or eligible for, the CRHR for historical resources, or must be included in a local register of historical resources. AB52 indicates that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment (PRC Section 21084.2).

The bill requires a lead agency to begin consultation with a California Native American tribe traditionally and culturally affiliated with the geographic area of the proposed project and to inform the tribe, if requested, of proposed projects prior to determining what type of environmental document is required.

As part of the cultural resource investigation, the Native American Heritage Commission was contacted for a consultation list of tribes with traditional or cultural places located within the boundaries of Jackson Demonstration State Forest, Mendocino County. The following Native American contacts notified via letter of the proposed project: Coyote Valley Band of Pomo Indians, Guidiville Rancheria, Hopland Band of Pomo Indians, Cahto Tribe, Manchester Band of Pomo Indians, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley Little River Band of Pomo, Round Valley Indian Tribes of the Round Valley Reservation, Sherwood Valley Band of Pomo Indians, Kashia Band of Pomo Indians of the Stewards Point and Noyo River Indian Community. Responses were received from the Kashia Band of Pomo Indians, Pinoleville Pomo Nation and Redwood Valley Little River Band of Pomo. The responses did not indicate the presence of any tribal cultural resources within the project area.

No tribal cultural resources were discovered within the Road 720 project area during investigations by CAL FIRE's archaeologist, nor were any identified in the consultation with California Native American tribes.

f) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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: 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 Section 5024.1?

A comprehensive review of recorded site records, survey records along with a site project area survey and consultation with Native American tribes for the area of the project has been completed. This comprehensive review did not result in identifying any tribal cultural resources within the project area. Since there are no identified cultural resources within the project area, there will be no impacts to resources as identified in PRC 21074.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Geology and Soils. Would the project:				
a) Expose people or structures to 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 California Geological Survey 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 will 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, as updated), creating substantial 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?	☐	☐	☐	☒

Environmental Setting

The JDSF and the surrounding area are located on the coastal side of the Mendocino Coast Range. The State Forest lands extend from gently sloping marine terrace surfaces along the Mendocino coastal plain in the west, to increasingly steep, rugged terrain in the eastern part of JDSF that is along the crest of the Mendocino Coast Range. The geomorphology of the coastal mountains of Mendocino County has been strongly influenced by two on-going processes: tectonic uplift and fluctuations in sea level.

In general, the landscape is characterized by moderate to high relief. Slopes are less steep in the western watersheds within the Forest, and are steeper to the east in the watersheds nearer the crest of the Mendocino Coast Range. Elevations range from less than 100 feet within stream valleys along the western edge of JDSF, to a maximum of 2,092 feet in the southeast corner. The area drains directly to the Pacific Ocean.

The project site is located within the southwestern portion of JDSF where Irmulco and Tramway series are the most common soils found on sideslopes. These soils are loamy, moderately deep to deep (up to about 80 inches), well-drained, and formed from weathered sandstone.

The forest is located between two active seismicity centers, the San Francisco Bay area to the south and the Mendocino Triple (Plate) Junction to the north. The principal tectonic feature in the area, as throughout much of California, is the San Andreas Fault, which is located about 6 miles offshore of the Forest (Jennings 1994). The north coast segment of the San Andreas Fault is associated with a slip rate of about 24 mm/year (Working Group 1996), and last ruptured in 1906.

The other significant seismic source in the Mendocino County area is the Maacama Fault, which lies about 6 miles east of the Forest. The Maacama segment has not produced a large historic earthquake. It is creeping ~~a~~seismically at a rate of about 6.5 mm/yr (10 years of data; Galehouse 2002). It is interpreted to be capable of generating a maximum magnitude earthquake on the order of 6.9 to 7.1 (Working Group 1996).

The combination of steep topography, locally sheared and weakened earth materials, high rainfall, and relative frequent seismicity result in a landscape that is inherently susceptible to erosion and landsliding processes (the latter are referred to herein as “mass wasting”). Land management in this environment can result in increased rates of mass wasting, which typically leads to the production of loose sediment, much of which is transported to watercourses. As such, the potential for delivery of sediment to area watercourses is the most important potential soils and geology-related impact of any projects proposed in the JDSF.

Discussion

a) Would the project expose people or structures to 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 California Geological Survey Special Publication 42.)

The closest fault zone is the Maacama Fault Zone located approximately 16 miles away in the town of Willits. The proposed project areas will not be impacted by this fault zone as they are well outside of the fault zone. No impact would occur.

ii) Strong seismic ground shaking?

The proposed project has no potential to be affected by strong seismic ground shaking. No impact would occur.

iii) Seismic-related ground failure, including liquefaction?

The proposed project has no potential to be affected by seismic-related ground failure, including liquefaction. No impact would occur.

iv) Landslides?

As indicated in the environmental setting section, landslides can occur within the JDSF from time to time due to the geological nature of the area. However, the road is an existing roadway that would be improved by the proposed project. The project would not result in landslides, lateral spreading, subsidence, liquefaction, or collapse. No impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Forest roads represent the largest potential erosion source associated with forest management. Roads have the potential to interrupt, concentrate, and re-direct the natural flow of water across native hillslopes, which can result in increased rates of erosion. A road cut into a hillslope intercepts the flow of sheetwash and shallow subsurface flow, and frequently diverts and concentrates these flows to a single discharge point that is usually closer to a watercourse than where the flow originated.

The JDSF management plan identifies road improvements within the JDSF as one of the goals to decrease soil erosion and sediment transfer into the watershed. The project involves excavation and grading of an existing road and alterations of the road prism as well as replacement of culverts to allow for better water flow during storm events. The project includes surface treatment (chip sealing) that will decrease the amount of fine sediment that is transported to watercourses in the area of the road. The project would decrease erosion and loss of topsoil permanently and would enhance natural water flows to improve passage for aquatic species. The impacts associated with this work would be temporary in nature and would not create a significant impact.

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?

As indicated in the environmental setting section, landslides can occur within the JDSF from time to time due to the geological nature of the area. However, the road is an existing roadway that would be improved by the proposed project. The project would not result in landslides, lateral spreading, subsidence, liquefaction, or collapse. No impact would occur.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?

The proposed project does not involve the construction of a building. No impact would occur.

e) Would the project 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?

The proposed project does not propose to install a septic tank nor does a septic tank exist at the project site. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. 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?	☐	☐	☐	☒

Environmental Setting

The main source of greenhouse gas (GHG) emissions associated with the proposed project would be short-term combustion of fossil fuels during construction activities. The implementation of the project will span approximately two months and use heavy equipment such as excavators, tractors, compactors, road graders and dump trucks. The proposed project would not result in a change in long-term operational emissions. The generation of GHG emissions has the potential to affect climate on a global scale. Pursuant to Assembly Bill 32, the California Air Resources Board prepared and adopted the Climate Change Scoping Plan. The Climate Change Scoping Plan outlines the state's strategy to achieve the year 2020 GHG emissions limits specified in AB 32. The Climate Change Scoping Plan includes a comprehensive set of actions designed to reduce overall GHG emissions in California.

CEQA guidelines Sec. 15064.4 requires a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions that are expected from a project and to make a careful judgement to determine significance. The analysis conducted below is in accordance with GHG analysis requirements found in the CEQA Guidelines and utilized recently published technical guidance for CEQA environmental impact studies (ICF Jones and Stokes 2007, CAPCOA 2008 and OPR 2008). State law (Health and Safety Code Sec. 38505(g)) defines greenhouse gas to include carbon dioxide, methane, nitrous oxide, hydroflurocarbons, perfluorocarbons and hexafluoride. GHG emissions are estimated based on what would result from the implementation of the proposed project. It is estimated that the project will take approximately 30 days to complete all phases.

The Mendocino County Air Quality Management District has not adopted quantitative significance thresholds for GHG emissions. Therefore, the threshold used in this section is based on a threshold developed by the California Air Pollution Control Officers Association (CAPCOA). The CAPCOA document CEQA & Climate Change – Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act presents a 900-metric ton per year (MT/yr) of CO2e screening threshold. The CAPCOA threshold is considered a conservative threshold set at a level to "capture" or define 90 percent of land use development projects as significant.

If the proposed project would generate more than 900 MT/year of CO2e, the project is considered to have a significant impact on global climate change. If the project would generate 900 MT/year of CO2e (combined operation and construction) or less, the project is considered to have a less than significant impact on global climate change. The 900 MT/year of CO2e threshold is applied to both construction-related emissions and operational GHG emissions.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The following table presents the estimated GHG emissions from each of the major project activities.

Project Activity	**Quantity**	**Conversion Factor**	**GHG Emissions in CO2e in metric tons (2204.6 lbs)**
Diesel Fuel Used for Heavy Equipment	1,600 gallons	10.15 KG/GAL (100 x 10.15/1000)	16.8
Gasoline Consumed During Worker/CAL FIRE Trips to Project Site	200 gallons	10.15 KG/GAL (100 x 10.15/1000)	2.10
Diesel Fuel Used for Transport of Materials	1,600 gallons	10.15 KG/GAL (100 x 10.15/1000)	16.8
Total			35.7

It is the determination of this analysis that the total GHG emissions associated with the implementation of this project are 35.7 metric tons of CO2. Based upon the CAPCOA threshold, CAL FIRE has determined impacts to greenhouse gas emissions are less than significant.

In addition, where feasible rock for road surfacing will be sourced from JDSF rock quarries. If not feasible then rock for road surfaces will be sourced from commercial rock quarries. If rock is sourced from JDSF rock sources this will reduce the transportation distance and have the potential to reduce the potential greenhouse gas impacts associated with this project.

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 an applicable plan, policy or regulation for purposes of reducing GHG emissions. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. 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/or 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 Section 65962.5 and, as a result, will 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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, Would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Environmental Setting

The proposed project is located within CAL FIRE-owned JDSF, which encompasses 48,652 acres in central Mendocino County. The forest is actively managed in the areas of research and demonstration, sustainable forestry operations, monitoring and research, road management, recreational opportunities, and protection and restoration of wildlife habitat. The JDSF Management Plan and associated EIR (2016) guides all activities and identifies general mitigation measures to be implemented for projects.

The project consists of improving an existing dirt road (Road 720) and replacing existing culverts to minimize delivery of road-related sediment to aquatic habitats and facilitate fish passage where applicable. Additionally, Road 700 will be abandoned and decommissioned by removing watercourse crossings,

reshaping the road prism by pulling outside fill and placing against the road cut along with erosion control and revegetation to alleviate sedimentation issues.

Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

This project does not propose to transport, use, or dispose of hazardous materials. All construction activities will be subject to the JDSF management plan requirements and general BMPs with regard to petroleum use. No impact would occur.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

The project would not create a significant hazard as no hazardous materials would be created as a result of the proposed project. No impact would occur.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Although emissions would occur as a result of the road improvement project, no hazardous materials, substances, or waste will be produced. The emissions would be short-term in nature and would be subject to the Mendocino County Air Quality Management District Rules and Regulations. Additionally, there are no existing or proposed schools within one-quarter mile of the project area. No impact would occur.

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 is not included on any list of hazardous materials sites. The project is located on state forest lands that does not contain hazardous materials onsite. No impact would occur.

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 for people residing or working in the project area?

The project is not located within an airport land use plan or within two miles of a public airport or public use airport. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project is not within the vicinity of a private airstrip. No impact would occur.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project does not impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No impact would occur.

h) Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project does not expose people or structures to a significant risk of loss, injury or death involving wildland fire, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level that will not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial on- or off-site erosion or siltation?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The majority of JDSF is less than 2,000 feet above sea level, and the great majority of precipitation falls as rain. Mean annual precipitation ranges from 39 inches on the coast at Fort Bragg (CDWR 1997) to 55 inches east of JDSF at Willits (CDWR 1997) and 70 inches on the eastern edge of JDSF based on isohyetal information in Rantz (1972). The majority of the rainfall occurs between October and April.

The JDSF lies within the jurisdiction of NCRWQCB. In developing the JDSF management plan, CAL FIRE included water quality requirements. Waste discharge prohibitions pertaining to logging, construction, and associated activities in the North Coast Region include:

1. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.

2. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited.

The following water quality objectives, from the North Coast Region Basin Plan, are considered of particular importance in protecting beneficial uses of water from unreasonable effects due to discharges from logging, construction, or associated activities:

1. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.

2. Turbidity shall not be increased more than 20 percent above naturally occurring background levels.
3. Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, which cause nuisance or adversely affect the beneficial uses.

4. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

5. Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.

6. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

7. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

8. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

The JDSF management plan provides management goals and incorporates regulations that protect the values related to recreation, watershed, wildlife, range and forage, fisheries, and aesthetic values. For water quality, the primary goal is to reduce turbidity and suspended sediment concentrations in JDSF watercourses through improved practices associated with road maintenance and timber operations.

Road related surface erosion is estimated to account for half of the sediment generated within the 15 planning watersheds draining JDSF. Implementation of the road management plan is expected to significantly improve water quality. Specific items that will reduce turbidity and suspended sediment concentrations include: hydrologically disconnecting inside ditchlines along road segments from watercourses and other road upgrading actions, reducing winter hauling on wet roads, properly abandoning roads located near watercourses, and use of annual inspections of roads to improve road maintenance. In addition to road management actions, improvements associated with hillslope operations will reduce sediment entry into watercourses.

The JDSF road management plan identifies several BMPs that would be implemented as a part of this project.

Discussion

a) Would the project violate any water quality standards or waste discharge requirements?

The project will not violate any water quality standards or waste discharge requirements. Implementation of the project will occur during the dry months of the construction season with project completion expected prior to winter storm events. In addition, appropriate erosion control measures will be in place prior to the winter period. No impact would occur.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The project does not propose to use groundwater supplies or interfere substantially with groundwater recharge. No impact would occur.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?

The project includes replacing culverts within existing stream crossings (Class I, II and III watercourses) to allow for better flows during storm events and to provide better passage for aquatic species. The road improvements would decrease sediment flows into these drainages. The project would not alter the existing drainage patterns but enhance the existing flows. The construction work would be conducted during the summer months when flows are minimal or stream channels dry. A 401 permit will be obtained from the NCRWQCB and a 1602 permit will be obtained from the CDFW to ensure that all project related work adheres to applicable laws and regulations to prevent substantial erosion during project construction. Impacts are less than significant.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?

The project does not propose to permanently alter the ground surface drainage patterns or alter any stream or river. However, the project will improve existing culvert structures to enhance the passage of water and aquatic species. The project does not propose any alterations or activities that would increase the rate or amount of surface runoff from what already exists at the project site. No impact would occur.

e) Would the project 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?

The project would not create or contribute to runoff water. The project improves water flows by replacing inappropriately sized culverts. The project will be implemented during a small operational window in the late summer months during low water flow when there is no chance of precipitation. No impact would occur.

f) Would the project otherwise substantially degrade water quality?

The proposed project includes heavy equipment operation and use of access roads within sensitive watersheds. The operation of heavy equipment is expected to temporarily disturb the ground surface and create fine silt/sediment material on access roads. As such appropriate operational mitigations have been incorporated into the project (see section ***IV Biological Resources (b), Mitigation Measure BIO#3***). With implementation of BIO#3, the impact would be less than significant.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The project does not propose to place any housing within a 100-year flood hazard area. No impact would occur.

h) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

The project does not propose to place any housing or structures within a 100-year flood hazard area or redirect flood flows. No impact would occur.

i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project does not propose to place any people or structures within a 100-year flood hazard area including flood prone areas or in an area where the failure of a levee or dam could result in flooding. No impact would occur.

j) Would the project result in inundation by seiche, tsunami, or mudflow?

The project does not involve the construction or placement of housing or structures vulnerable to inundation by seiche, tsunami, or mudflows. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Land Use and Planning. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Environmental Setting

The regional setting for JDSF land use is Mendocino County. This regional basis was selected because the county is the unit of planning and authority for land use for JDSF and a significant amount of surrounding area.

JDSF covers approximately 48,652 acres in central Mendocino County. It varies from 4 to 8 miles wide in a north-south direction, and is nearly 18 miles long on the east-west axis. Its western boundary is within 1.5 miles of the coast, and the eastern boundary generally lies on the crest of the Mendocino Ridge separating the coastal slopes from the inland valleys, approximately 7.0 miles west of Willits. Mendocino County has three zoning divisions: inland, coastal, and the town of Mendocino. Similarities exist between the three divisions and have been grouped according to their common features.

Ninety-nine percent of the JDSF ownership is zoned by Mendocino County as TPZ; the remaining one percent is rangeland under the Williamson Act. The TPZ designation was created by Mendocino County in accordance with the state's Timberland Productivity Act of 1982. Land use in a TPZ district is restricted to growing and harvesting timber as well as certain other compatible uses, and establishes a presumption that timber harvesting will occur on such lands. Approximately 300 acres of JDSF is located within the Coastal Zone.

There are 11 privately owned parcels within the ownership, most in the southwest corner. A large private ownership extends into the middle of JDSF from the south. The City of Fort Bragg, where JDSF headquarters facility is located, is two miles north of the western property boundary. The town of Mendocino is located two miles west of the southwest corner of JDSF; Ukiah, the county seat, is 35 miles southeast of JDSF.

JDSF is designated as Forest Lands in the Mendocino County General Plan (Mendocino County, 1981, rev. 1993). The Forest Lands classification applies to all lands that is suited for and is appropriately retained for the growing, harvesting, and production of timber and timber-related products. The classification should include lands eligible to be zoned Timberland Production, intermixed smaller parcels, and other contiguous lands. Uses consistent with the Forest Lands designation include forestry, timber processing, agricultural uses, cottage industries, residential uses, recreation, and uses determined to be related to and compatible with forestry.

Discussion

a) Would the project physically divide an established community?

The proposed project occurs within a State Forest, Jackson Demonstration State Forest, and is outside the boundaries of an established community. No impacts would occur.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project is not in conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project. No impact would occur.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

The project site is not located within a habitat conservation plan or natural community conservation plan area. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. 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?	☐	☐	☐	☒

Environmental Setting

The Mendocino County General Plan identifies asbestos, carbon dioxide, chromite, coal, copper, feldspar, gold, jade, limestone, magnesite, manganese, methane gas, mineral springs, natural gas, nickel, petroleum, phosphate, platinum, quicksilver, sand and gravel, and sulfur as minerals which have been found within the county.

Rock aggregate (or crushed rock) is the only mineral resource known to exist within JDSF. This resource would be developed and used for road surfacing materials only within the state forest and not developed for commercial purposes. There is no evidence that valuable mineral resources have been identified or historically extracted from JDSF land. Neither past nor proposed management activities impact valuable mineral resources.

Continued use of some existing rock pits (also referred to as borrow pits or quarries) will occur to obtain surface materials for JDSF roads. There are approximately 23 rock pits that have been historically used on JDSF. There has been no active quarrying within the past five or more years, except for small amounts (<100 cubic yards) of loose material taken from a limited number of existing rock pits. New rock pits or quarries are not contemplated; however, new ones could be considered depending on future need. Any new rock pit or quarry would be subject to separate environmental review when specific information is known regarding size and location.

It is anticipated that the rocks for the road chip sealing would be purchased from Harris Quarry, which is located approximately 28 miles southeast of the project site. However, use of rock aggregate located within JDSF could supplement the road work.

Discussion

a) Would the project 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?

The amount of aggregate that would be purchased from Harris Quarry for the 1.8 mile stretch of road would not result in the loss of mineral resources. No impact would occur.

b) Would the project 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 California State Mining and Geology Board has the responsibility to inventory and classify mineral resources pursuant to the State Mining and Reclamation Act of 1975 (SMARA). Once this is done, the local agency must adopt a management plan for those identified resources. There are no SMARA classifications of such resources within Mendocino County. The project does not impact any locally important mineral resource recovery sites. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Noise. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Mendocino is a rural county. Ukiah is the county seat and the biggest city, but is also considered rural, characterized by low-density housing and ranchettes surrounding the city. Forest management (including timber harvesting, road maintenance, and road building) and recreation (including camping, hiking, horseback riding, mountain biking, and target shooting) activities and their associated noise are common on forestlands in Mendocino County.

The Jackson Demonstration State Forest lies in the western-most part of Mendocino, County, about 8 miles east of the unincorporated western border of Willits. It is bisected by State Highway 20 and shares approximately 30 miles of roads with unincorporated properties east of Mendocino and Fort Bragg. Low-

density rural housing and ranchettes are dotted along JDSF's borders, where unfenced residences meld into the state forest property without distinction.

Ambient (background) sources of natural noise range from short-term soft sounds, as in the sound of the wind in the trees (30-50db), to short-term loud cracks and rumbles, as in the sound of falling rocks (60-80db). Ambient noise can also be loud and constant, as in the deafening sound of a large waterfall (100db).

Man-made noise-generating activities within the assessment area on the Jackson Demonstration State Forest include the following:

- Vehicle traffic (adjacent highways, access roads, and railroads).
- Recreation (people, off-highway vehicles, target shooters and hunters).
- Activities from adjacent residences and businesses.
- Construction (roads and facilities).
- Harvesting activities (machines and chain saws).
- Air traffic (planes and helicopters).

Recreation Areas adjacent to JDSF: Noise generated within JDSF or close to the borders of JDSF, has potential to affect sensitive receptors not only within JDSF, but also to adjacent parks and private land uses. State Parks shares borders with JDSF in many areas. The Mendocino Woodlands State Park and the Jughandle State Reserve abut the west side of JDSF, and Russian Gulch State Park is within the southern portion of JDSF. The new state park on the lower Big River also shares a border with JDSF. These areas are potential sensitive receptors to noise produced on JDSF.

Recreation Areas within JDSF: There are two major camping areas with many sites each, 30 miles of hiking-recreation trails, as well as the many scenic vistas on the highway and roads, which may be considered sensitive receptors to noise created from outside JDSF as well as within.

Habitat: Wildlife in habitat areas can be sensitive receptors, particularly during the reproduction season. The Mendocino County General Plan has identified exterior noise standards, adopted from U.S. Environmental Protection Agency suggested standards, applicable to specific categories of land use. For one- and two-family residential dwellings in rural suburban communities, the maximum exterior noise standard is 40 dBA Ldn between the hours of 10 P.M. and 7 A.M., 45 dBA Ldn between the hours of 7 P.M. and 10 P.M., and 50 dBA Ldn between the hours of 7 A.M. and 7 P.M.

The Mendocino County General Plan lacks specific noise standards for every zoning type. The Division of Environmental Health in the County Health Department has established preferred levels or goals for some of the land uses, and the Noise Element of the General Plan defines ranges of acceptability that are used to determine land use compatibility with various noise exposure levels. Mendocino noise policy generally targets protection of the environment from noise, but finds lumbering and agriculture significantly important to warrant the production of necessary noise. This is also reflected in General Plan land use and zoning designations which try to avoid placing an excess of noise sensitive land uses adjacent to agricultural and timber production areas (Mendocino County, 1991).

Mendocino Woodlands State Park is located approximately one-quarter mile from Road 720’s eastern termination point (junction of Road 700) and the nearest rural residence is located approximately three quarters of a mile from the Road 720’s western termination point (on Little Lake Road).

Discussion

a) Would the project create exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Although there would be noise generated during construction and demolition of culverts the noise would be temporary in nature and is within a state forest during the day. Activities are not anticipated to generate noise levels in excess of standards established in the local general plan or noise ordinance, or other applicable local, state or federal standards. Impacts would be less than significant.

b) Would the project create exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Demolition and construction activities will not involve the use of explosives, pile driving, or other intensive construction techniques that could generate vibration or groundborne noise. No impact would occur.

c) Would the project create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The proposed project would upgrade a 2.5-mile section of existing road and replace culverts. The construction activities will be temporary in nature, lasting approximately two months, and would not cause a permanent increase in noise levels.

d) Would the project create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

There will be a temporary increase in ambient noise at the project site due to heavy equipment operation and trucks used for hauling rock products. It is not expected that the implementation of this project will result in a significant impact due to an increase in ambient noise. Impacts would be less than significant.

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 expose people residing or working in the project area to excessive noise levels?

The project is not within an airport land use plan area or where such as plan has not been adopted, or within two miles of a public airport-public use airport. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The project is not within the vicinity of a private airstrip. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. 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 homes, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

JDSF is located in Mendocino County near the towns of Fort Bragg, Willits and Mendocino. Its western edge is near the Pacific Coast Highway and its eastern edge is near the town of Willits along State Highway 101. This area between the coast and the interior valleys is dominated by forests with residential development concentrated along the coast and the Highway 101 corridor.

According to Mendocino County's General Plan (September 2008) the estimated population was 90,163, with the majority located in the Ukiah area. The county has a land area of 2.2 million acres. Population in the area around JDSF has grown substantially since 1990 (Mendocino County, Fort Bragg and Willits) and the population in the unincorporated areas of the county is growing faster than the incorporated areas.

Mendocino County (incorporated and unincorporated) had 39,563 housing units in 2008, an increase of only 0.73 percent over 38,278 housing units in 2007. The number of housing units has increased an average of 0.95 percent annually. The area surrounding the JDSF is sparsely populated.

The project site is located within the JDSF that is currently managed for forestry activities. Scattered residences occur surrounding the JDSF and seasonal campgrounds provide recreation within the forest.

Discussion

a) Would the project 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)?

The project does not propose any development which would have a direct or indirect impact on the population growth of an area. No impacts would occur.

b) Would the project displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?

This project does not propose to displace any homes as it is within a state forest. No impact would occur.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The project would not displace any people. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

The natural forest amenity values and recreation opportunities provided by JDSF make it an attractive element of central western Mendocino County. Some people may be drawn to the area to visit, recreate, or even live because of these values.

The JDSF is actively managed as a forest resource and does not contain public services. The proposed project consists of road surfacing, culvert replacement, and road abandonment activities.

Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?

The project will not result in any alteration of governmental facilities related to fire protection. No impact would occur.

Police protection?

The project will not result in any alteration of governmental facilities related to police protection. No impact would occur.

Schools?

The project will not result in any alteration of governmental facilities related to schools. No impact would occur.

Parks?

The proposed project is to upgrade an existing road that provides access to the Mendocino Woodlands State Park. The work proposed is entirely within the boundaries of JDSF, however the project also benefits the neighboring state park by ensuring access to camp facilities. The proposed project would not change the use of these facilities. No impact would occur.

Other public facilities?

The project will not result in any alteration of governmental facilities related to fire protection. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Recreation. 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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

JDSF is within a 3 to 4-hour drive from the San Francisco Bay Area, about 2 to 2½ hours from Santa Rosa, and about 4 to 5 hours from Sacramento. Many tourists from these urban areas visit the north coast annually and recreate at the coastal beaches, parks, and towns. Within the north coast region, there are over 56 state parks and beaches, encompassing nearly 40 miles of coastline and approximately 180,000 acres.

Within Mendocino County, there are 22 state parks that encompass approximately 33,000 acres, much of which is redwood forest. These parks had over 3 million visitors in fiscal year 2001-2002 (Department of Parks and Recreation 2003). JDSF, with 61,000 visitors annually, also is an important county tourist attraction, with the majority of visitors to JDSF living in or near the cities of Willits, Ukiah, Fort Bragg, and Mendocino.

Recreation Use
JDSF does not have controlled entry points, nor are any recreation fees collected. Thus, it is difficult to accurately estimate annual visitor usage. In the past 10 years, average use has not been quantified other than by tracking the annual camping days per year. In 1999, there were over 12,200 visitor days of use by campers who typically stay for two to four days. In the past 10-year period, overnight-use has averaged 16,000 visitor days per year. Easy access from Fort Bragg, Mendocino and Willits allows for extensive day use. It is estimated that day use is about four times that of overnight use, making total use about 61,000 visits per year.

Given the nature of the rustic, dispersed recreation at JDSF, its recreation opportunities are more comparable to those offered by national forests than state or national parks.

General Access Conditions
Except for the two conservation camps on the JDSF and temporary area closures during active timber operations, nearly all of the 48,652-acre forest is open to public access. During the wet winter months, many roads are closed to vehicular access, but remain open to non-motorized recreation.

Recreation Activities
Recreational opportunities found on Jackson Demonstration State Forest are unique to the coastal region. They are informal, free of charge, generally unsupervised, and diverse. Primary recreational activities occurring on JDSF include vehicular and hike-in camping, picnicking, hiking, biking, equestrian activities, environmental education, hunting, and shooting. A total of 65 campsites in 21 campgrounds, 20 seasonal and one open year-round, exist at JDSF.

Discussion

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?

The project proposes to improve an existing road that provides access to an existing state campground. The road improvements would not increase the use of this campground as the current road provides adequate access and the improvements would not increase the amount of use. No impact would occur.

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The project does not include recreational facilities or require the construction or expansion of recreational facilities. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Environmental Setting

The EIR and amended EIR prepared for the JDSF Management Plan (SCH#2004022025) determined that impacts to transportation and traffic would be less than significant without mitigation measures. The proposed project would temporarily increase traffic slightly during the construction period (approximately two months).

The primary highway used to reach the JDSF is the section of State Route 20 (SR 20) located between State Highway 1 near Fort Bragg, approximately 1.0 mile west of the forest, and the junction of U.S. Highway 101 at Willits, approximately 7.0 miles east of the Forest. Both SR 20 and U.S. Highway 101 are considered routes of statewide significance.

From Fort Bragg to Willits, SR 20 is highly scenic, relatively unpopulated, and currently eligible to be listed as a California Scenic Highway (Caltrans Scenic Highway Database). This classification requires that the local jurisdiction enact a scenic corridor protection program. To date, Mendocino County has no plans to implement the program.

SR 20 is a two-lane highway except for a 0.6 miles four-lane section east of its intersection with Highway 1 near Fort Bragg (Mendocino County General Plan, Section III Circulation Element). According to the

Mendocino County General Plan and the Transportation Concept Report for SR 20 (Caltrans, August 2017), the only level of service (LOS) proposal for this route is that it should be improved and upgraded to safe two-lane standards with truck turnouts of reasonable length. Currently, SR 20 operates at a LOS D or above.

Discussion

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The project does not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the transportation system, nor does the project alter the physical characteristics of the transportation system. No impact would occur.

b) Would the project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The project would require the use of construction equipment that includes dump trucks, transfer trucks and end dump trucks with approximately 10 trips per day. The increase in construction traffic would temporarily increase the usage of SR 1 and 20 and the roads within the JDSF. It is anticipated that the road improvement portion would generate 10 trips per day to the site for approximately 60 days. The culvert replacement portion would require a transport truck to deliver 2-4 loads of rip rap rock that would stay at the project site during the duration.

During the implementation of the project use of Road 720 will be limited to construction vehicles, while the main access to the Woodlands Camp on Road 700 will remain open. It is expected that there will be an increase in truck traffic on Road 408 during construction activities, but the traffic will be sporadic and temporary in nature.

The increase in the truck traffic would be occur over 60 days and would not be permanent in nature. This increase would not be substantial within JDSF as the road improvements would only occur on a 2.5 mile stretch and would be completed within approximately two months. The additional construction traffic that would use SR 1 and 20 would not degrade the LOS below the acceptable LOS of E set by Caltrans. Impacts would be less than significant.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The nearest airport is 2.5 miles away. The project would not result in a change in air traffic patterns or result in substantial safety risk. No impacts would occur.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No hazards would be created as it relates to traffic and safety. No impacts would occur.

e) Would the project result in inadequate emergency access?

The project would not result in inadequate emergency access. No impacts would occur.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The project does not conflict with any adopted plan, ordinance, program, or policy regarding public transit, bicycle or pedestrian facilities. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Utilities and Service Systems. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

The JDSF EIR (SCH#2004022025) did not identify any effects to public services, population and housing, utilities, or service system related resources associated with the actions proposed under the forest management plan. Each project that is implemented under the JDSF management plan is to undergo environmental analysis. Currently, the JDSF does not use utilities or service systems.

Discussion

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The project does not propose to generate any new water or wastewater, which would exceed wastewater treatment requirements. No impact would occur.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project would not require or result in the construction of new water or wastewater treatment facilities, or require the expansion of existing facilities. No impact would occur.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project would not require or result in the construction of new storm water drainage facilities or require the expansion of existing facilities. No impact would occur.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The project would not need to obtain water supplies as no development is occurring on the project site. No impact would occur.

e) Would the project result in a determination by the wastewater treatment provider that 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?

The proposed project would not require to be served by a wastewater treatment provider. No impact would occur.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

The project will remove existing steel culverts that will be replaced. The removed culvert material will be re-cycled at a metals recycling facility and would not be disposed of in a landfill. No impact would occur.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The project will remove existing steel culverts that will be replaced. The removed culvert material will be re-cycled at a metals recycling facility. No impact would occur.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. 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, reduce the number or restrict the range of an endangered, rare, or threatened species, 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 that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Authority: Public Resources Code Sections 21083 and 21083.05.
Reference: Government Code Section 65088.4, Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21083.05, 21083.3, 21093, 21094, 21095, and 21151; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors (1990)*, 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Government v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San* Francisco (2002) 102 Cal.App.4th 656.

Discussion

a) Would 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, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

The proposed project consists of upgrading 2.5 miles of existing road for the purpose of providing a permanent "year-round" access road to the MWC as well as mitigating ongoing sediment issues with Road 720 and accommodating the eventual abandonment of Road 700. As part of this project current culverts will be replaced to improve the flow of water and passage for aquatic species.

Implementation of the project will not 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; reduce or restrict the range of rare, threatened or endangered plants or animals or eliminate important examples of the major periods of California history or prehistory. Mitigation measures have been incorporated for biological resources to prevent any significant impacts from occurring.

b) Would 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.)

The project would not generate cumulative effects as the project is upgrading an existing road and replacing narrow culverts that restrict water flow. The proposed project would mitigate existing road related sediment issues and eliminate these impacts to watercourses. Impacts are less than significant.

c) Would the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

No project related environmental effects were identified that would cause a substantial adverse effect on humans. No impacts would occur.

Appendix A
Mitigation Monitoring and Reporting Plan
for the
Jackson Demonstration State Forest Road 720 Upgrade Project
Initial Study-Mitigated Negative Declaration
Mendocino County, California

In accordance with CEQA Guidelines Section 15074(d), when adopting a mitigated negative declaration, the lead agency will adopt a mitigation monitoring and reporting plan (MMRP) that ensures compliance with mitigation measures required for project approval. The California Department of Forestry and Fire Protection (CAL FIRE) is the lead agency for the above-listed project and has developed this MMRP as a part of the final initial study-mitigated negative declaration (IS-MND) supporting the project. This MMRP lists the mitigation measures developed in the IS-MND which were designed to reduce environmental impacts to a less-than-significant level. This MMRP also identifies the party responsible for implementing the measure, defines when the mitigation measure must be implemented, and which party or public agency is responsible for ensuring compliance with the measure.

Potentially Significant Effects and Mitigation Measures
The following is a list of the resources that will be potentially affected by the project and the mitigation measures made part of the IS-MND.

Mitigation Measure BIO#1: Measures to Protect Potential Marbled Murrelet (MAMU) Habitat Area.

1. If protocol-level (*Methods for surveying Marbled Murrelets in forests: a revised protocol for land management and research*, 2003) audio-visual surveys have not been completed around specific MAMU habitat areas leading to a probable absence determination, the project shall avoid the area of a 165-foot buffer around each of the three known MAMU habitat areas during the breeding season (March 24th to September 15th). These buffers would not impact the road construction area.

2. If protocol level, audio-visual surveys are conducted without any murrelet detections, road construction activities may occur during the breeding season as long as the area retains a probable absence clearance, otherwise the 165-foot spatial buffer and limited operating period restrictions shall apply.
3. ~~The project should avoid the area of a 165-foot buffer around each of the three known MAMU habitat trees during the breeding season: March 24th to September 15th. These buffers do not impact the road construction area.~~

Schedule: To be implemented prior to and during construction activities.

Responsible Party: CAL FIRE JDSF staff and contractor.

Verification of Compliance:
Monitoring Party: CAL FIRE
Initials: _____
Date: _____

Mitigation Measure BIO#2: Measures to Protect Northern Spotted Owl (NSO).

1. Project operations shall begin after July 31st to avoid disturbance impacts to northern spotted owl (NSO) specifically if nocturnal surveys have not been completed within 0.25 miles of the project boundary.
2. If surveys are completed following a two-year (Years 1 and 2), six visit (survey visits at least 7 days apart) approach during the NSO survey season (March through August 31), then operations may occur prior to July 31st if probable absence is supported. Subsequent years of surveys (Years 3 thru 5 beyond) may utilize a spot-check survey approach (i.e. three surveys at least a week apart) during the NSO survey season and prior to operations to certify the probable absence determination.
3. If NSOs are located as a result of surveys, a 0.25 mile seasonal disturbance buffer will be observed around the roost or nest site (i.e. activity center) during the breeding season and until a determination of non-nesting is made (i.e. a post-May 15th visit determines NSO are not nesting), offspring have fledged and are capable of sustained flight, or July 31st, after which time road work may begin.
4. In general, ~~tree~~ removal~~s~~ of trees greater than 11" dbh should be ~~prohibited~~ avoided to prevent NSO habitat impacts unless pre-project surveys have been conducted to determine probable absence or identify activity centers and implement protection measures. Twenty such trees have been identified and marked for removal. Thus, this action will be limited in extent to what is necessary for installing culverts, improving turning radius, and constructing turnouts according to safety and road specifications.
5. ~~Project operations shall begin after July 10th to avoid disturbance impacts to NSO. Tree removals of trees greater than 11" dbh should be prohibited to prevent NSO habitat impacts.~~

Schedule: To be implemented prior to and during construction activities.

Responsible Party: CAL FIRE JDSF staff and contractor.

Verification of Compliance:
Monitoring Party: CAL FIRE
Initials: _____
Date: _____

Mitigation Measure BIO #3: Measures to Protect Water Quality

1. Road construction operations shall cease during periods of precipitation (rain and/or showers).

2. No heavy equipment operation after an accumulated 0.25 inches of precipitation within a 24-hour period.

3. Heavy equipment operation may resume after precipitation ceases and a stable operating surface exists in the area of operation.

4. All exposed and disturbed soils (other than rock) shall be stabilized with a layer of clean rice straw mulch with an average coverage of 95% and 4 inches thick.

5. The outer edge of the work area where water flow is directed and /or channeled shall have straw wattles installed.

Schedule: To be implemented prior to and during construciton activities.

Responsible Party: CAL FIRE JDSF staff and contractor.

Verification of Compliance:
Monitoring Party: CAL FIRE
Initials: _____
Date: _____

Mitigation Measure BIO#4: Pre-Construction Nesting Survey

1. Conduct a pre-construction nesting bird survey of all suitable habitat on the project site within 7 days prior to commencement of construction during the nesting season (February 1 through August 31).

2. If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a qualified biologist (or forester) in accordance with the CDFW recommendations for buffer distances relative to the species identified. Once construction activities commence on-site, all nests will be continuously monitored by a qualified biologist (or forester) to detect any behavior changes as a result of construction of the proposed project. If behavioral changes are observed that may result in adverse effects to the success of breeding, the work causing the change shall cease and consultation with CDFW shall be initiated to identify potential avoidance and minimization measures. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist (or forester). Once the young are independent of the nest, no further measures are necessary and construction may commence.

Schedule: To be implemented prior to any ground disturbing activities.

Responsible Party: CAL FIRE JDSF staff and contractor.

Verification of Compliance:
Monitoring Party: CAL FIRE
Initials: _____
Date: _____

Mitigation Measure CR#1: Accidental Discovery
Should unanticipated discoveries of cultural resources occur during project initiation, then all work within 100 feet must halt and a CAL FIRE archaeologist shall be immediately contacted to identify potential avoidance and minimization measures or other mitigation measures that will mitigate significant effects to a less than significant level.

If the newly discovered site is Native American archaeological or cultural site, the CAL FIRE archaeologist shall notify the appropriate Native American tribal group and the Native American Heritage Commission, if appropriate.

Schedule: During construction activities.

Responsible Party: CAL FIRE JDSF staff and contractor.

Verification of Compliance:
Monitoring Party: CAL FIRE
Initials: _____
Date: _____

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REFERENCES CITED

California Natural Diversity Database (CNDDB)
2016 California Department of Fish and Wildlife

Jackson Demonstration State Forest Management Plan
2008 California Department of Forestry and Fire Protection, The Resources Agency, State of California

Keeler-Wolf and Sawyer
1995 A Manual of California Vegetation. California Native Plant Society.