

Culvert Rehabilitation Project

Mendocino County, California

District 1-MEN-101

Postmiles 46.24/84.52

01-40280

Focused Initial Study with Proposed Negative Declaration



Prepared by the
State of California Department of Transportation

April 23, 2009



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts for the proposed project located in Mendocino County, California. The document describes why the project is being proposed, the existing environment that could be affected by the project, and potential impacts, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans District 3 Office of Environmental Planning at 2800 Gateway Oaks Drive, Sacramento, CA 95833 and at the Ukiah Public Library at 105 N. Main Street, Ukiah, CA 95482.
- We welcome your comments. If you have any concerns regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via US mail to Caltrans at the following address:

Mr. Lupe Jimenez
Senior Environmental Planner (S-4)
North Region California Department of Transportation MS #19
P.O. Box 942874
Sacramento, CA 94274-0001

- Submit comments via email to: Lupe.Jimenez@dot.ca.gov
- Submit comments by the deadline: May 24, 2009.

What happens next?

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Lupe Jimenez, Environmental Branch Chief, California Department of Transportation, PO Box 942874, Sacramento, CA 94274-0001; (916) 274-0557 Voice or use the California Relay Service TTY number, 1-800-735-2929.

SCH:
01-MEN-101 PM 46.24/84.52
01-40280

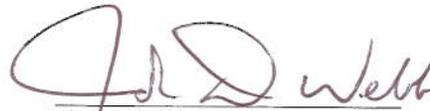
Culvert Rehabilitation Project
01-MEN-101 PM 46.24/84.52
EA 01-40280

FOCUSED INITIAL STUDY with Proposed Negative Declaration

Submitted Pursuant to: (State) Division 13, California Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

23 April 2009
Date of Approval


John Webb, Chief
Office of Environmental Services -- South
North Region Environmental Planning
California Department of Transportation

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation is proposing a Culvert Rehabilitation Project at various locations on US Highway 101 in Mendocino County. The project is necessary due to deterioration of the existing drainage facilities. The project work includes lining culverts, repairing inlets and outlets of culverts, replacing some sections of culverts, and replacing some entire culverts. Additionally, rock slope protection and rock energy dissipaters will be installed to reduce erosion. The project will have appropriate sediment control devices, aesthetic treatments, and revegetation of disturbed areas, include erosion and water quality control protection measures, and use both state and federal funding.

Determination

Caltrans has prepared a Focused Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have minimal or no effect on agricultural resources, air quality, cultural resources, floodplain, geology/soils, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation and traffic, utilities/service systems, and visual/aesthetics.
- The proposed project would have a less than significant effect on the following resources: biological resources, hazardous material, and hydraulics/water quality.

John Webb, Chief
Office of Environmental Services - South
North Region Environmental Planning
California Department of Transportation

Date

Initial Study

Project Title

Culvert Rehabilitation Project

Lead Agency Name, Address and Contact Person

California Department of Transportation
2800 Gateway Oaks Drive
Sacramento, CA 95833
Mr. Lupe Jimenez, Branch Chief (S-4)
(916) 274-0557

Project Location

The project site is located in Mendocino County on US Highway 101 from the City of Willits to the town of Leggett. The first location is at postmile (PM) 46.24 and the last location is at PM 84.52.

Project Sponsor's Name and Address

California Department of Transportation
John Webb, Chief, Office of Environmental Services - South
703 B Street
Marysville, CA 95482

Purpose and Need

The culvert rehabilitation work is needed to maintain the existing roadway and to prevent erosion. The purpose is to improve drainage and reduce maintenance costs.

Alternatives

There are two alternatives being studied, the "No Build," and the proposed project, which is described below.

Description of Project

The proposed project is to repair, upgrade, or replace 36 existing drainage facilities on US Highway 101 (US 101) from 0.4 miles north of Baechtel Creek Bridge in Willits to 0.2 miles south of Cummings Road Under-crossing near Leggett in Mendocino County.

The proposed work would also line, upgrade, or pave inverts on existing culverts, install overside drains, replace headwalls, place flared end sections, place horizontal drain collector systems, clean drainage systems, and place rock energy dissipators at identified locations.

The culverts are located at the following sites:

1. PM 46.24: 60-in (in) Corrugated Steel Pipe (CSP)

Work at this location will include rehabilitation and replacing the last 20-feet (ft) of the existing culvert and installing a 54-in outside diameter (OD) solid wall high-density polyethylene (HDPE) liner in the entire section of culvert downstream of the existing invert paving. The entire void volume between the host and liner would be grouted. A concrete transition section would need to be formed where the upstream culvert meets the liner.

At this location, the tracks and trestle of the California Western Railroad (CWRR), also known as the "Skunk Train," are eligible for the National Register of Historic Places and will be avoided. The area of potential effects was revised at this location to avoid the railroad tracks and trestle. All work will be done from the south side of the railroad tracks only. In addition, in accordance with measures required by Sierra Railroad, the current owner of the CWRR ("Skunk Train"), digging or boring can occur adjacent to the tracks except within 2-feet of their ballast, in which case protective measures will be taken to ensure the ballast is not contaminated. There will be no effect to the tracks or trestle.

2. PM 48.00: 18-in CSP (REMOVED FROM PROJECT)

3. PM 50.18: 36-in CSP

Work at this location will line the existing culvert with 30-in profile wall HDPE, grout entire annular void between host and liner pipes.

4. PM 50.41: 24-in CSP

Work at this location will line the existing culvert with 20-in polyvinyl chloride (PVC) liner, grout entire annular void between host and liner pipe and replace the steel flared end section (SFES).

5. PM 51.42: 36-in CSP

Work a location will replace existing SFES, place 30-in PVC (grout entire annular void between host and liner pipes; place approximately 9ft x 18ft of 1-Ton rock slope protection (RSP) in the outlet channel, rotate the existing downdrain and replace the anchor assemblies.

6. PM 52.44: 18-in CSP

Work at this location includes removing the existing facility and replacing with 24-in CSP. New drainage facility would be extended approximately 6-ft on the outlet side using approximately 8-cubic yards (cy) of fill, place Type GO drainage inlet.

7. PM 54.20: 18-in CSP

Work at this location will remove existing drainage facility and replace with 24-in CSP. Place new Type G1 drainage inlet in turnout.

8. PM 57.54: 18-in CSP

Work at this location will place 15-in PVC liner, grout entire annular void between host and liner pipes.

9. PM 57.58: 18-in CSP

Work at this location will place 15-in PVC liner, grout entire annular void between host and liner pipes and place 6-ft x 6-ft of light gradation rock energy dissipator (RED) at outlet.

10. PM 57.63: 18-in CSP

Work at this location will place 15-in PVC liner, grout entire annular void between host and liner pipes and place 6-ft x 6-ft light gradation RED at outlet.

11. PM 57.87: 84-in CSP (REMOVED FROM PROJECT)

12. PM 58.59: 30-in CSP

Work at this location will clean sediment and material from cross culvert, place 24-in profile wall HDPE liner in cross-culvert (first section of pipe), grout entire annular void between host and liner pipe, remove and replace the down drain with new 30-in CSP to outlet on existing RSP.

13. PM 58.82: 14-ft x 86-in Concrete Arch

Work at this location will repave culvert invert to repair concrete scour in northern most box culvert and clean trash rack.

14. PM 62.69: Over-side Drain

There is no existing drainage facility at this location, although, there appears to have been an over-side drain at one time. Erosion is occurring on the fill slope of the highway causing the road to sag. The work proposed at this location would be to place a new 8-in over-side down-drain. The outlet of the over-side drain will fall onto existing RSP.

15. PM 63.41: 24-in Profile Wall HDPE

Work at this location will replace the facility with a new 21-in profile wall HDPE.

16. PM 66.50: 10.5-ft x 7-ft Double Reinforced Concrete Box

Work at this location will install cable railing along the highway on the inlet and outlet side of the culvert and repair the scour located below the inlet wing wall. Additionally, to provide adequate fish passage, a rock weir will be constructed approximately 40-feet downstream from the culvert's outlet according to California Department of Fish & Game (CDFG) Guidelines for rock weirs.

17. PM 74.70: 18-in CSP

Work at this location will replace existing culvert with 24-in CSP. Place straight concrete headwall at the inlet and place 4-ft x 4-ft facing grade RED between culvert outlet and existing concrete.

18. PM 75.55: 18-in CSP

Work at this location will place new 24-in CSP at a flatter grade and new straight concrete headwall. Place new 24-in CSP downdrain with new anchor assemblies. Place a 6-ft x 12-ft of ¼ Ton grade RED.

19. PM 76.62: 18-in CSP

Work at this location will jack a new 24-in welded steel pipe (WSP), place a new straight concrete headwall at culvert inlet.

20. PM 76.78: 18-in CSP Storm Drain System

Work at this location will replace existing CSP with 24-in CSP. Remove and replace DI with a Type GO drainage inlet, and perpetuate existing underdrain.

21. PM 78.18: 18-in CSP

Work at his location will remove existing pipe and place 24-in alternate pipe culverts (APC). Place 6-ft x 10-ft of ¼ Ton grade RED, conform RSP to the bank and the adjacent trees (no trees will be removed). Remove downdrain chute.

22. PM 79.79: 18-in CSP

Work at this location will remove existing CSP, replace with a new 24-in CSP. Place Type OMP DI and grade the ditch to drain.

23. PM 79.88: 18-in CSP

Work at this location will remove existing CSP and replace with a new 30-in CSP; place a straight concrete headwall at the inlet; place a new Type GO drainage inlet at the skew point along the shoulder.

24. PM 81.30: 24-in CSP

Work at this location will remove existing facility and place a new 24-in CSP cross culvert with a new straight concrete headwall at the culvert inlet.

25. PM 81.56: 24-in CSP

Work at this location will remove and replace the culvert and add a new Type GO drainage inlet at the inlet.

26. PM 81.80: 36-in CSP

Work at this location will place new straight concrete headwall, slip-line existing cross-culvert with 30-in profile wall HDPE. Place 6ft x 6ft light grade RED.

27. PM 81.88: 24-in CSP

Work at this location will line existing cross-culvert with PVC liner, replace existing SFES, place new 24-in CSP cross-culvert from culvert outlet past the dirt access road, and use imported rocky material to stabilize the roadway. Place 10ft x 10ft ¼ Ton and ½ Ton RSP below culvert outlet.

28. PM 81.88 to 81.99: Horizontal Drain Collector (REMOVED FROM PROJECT)

29. PM 82.07 to 82.14: Horizontal Drain Collector System

The existing facility is a system consisting of an unknown number of galvanized steel pipe horizontal drains. The drains are adjacent to each other below the roadway, in a fill section. The work proposal at this location is to clean all horizontal drains and replace failed collector system with a new 8-in CSP collector system.

30. PM 82.63: 24-in CSP

The work at this location will line existing cross-culvert with PVC plastic liner, replace redwood inlet cover, place approximately 6-ft x 10-ft of light gradation RSP outlet to stabilize scour hole and act as a RED.

31. PM 82.77: 24-in CSP

Work at this location will line existing cross-culvert with PVC liner or profile wall HDPE, replace redwood inlet cover, and clean or replace existing underdrain. Place 6-ft x 40-ft of facing RSP along stream channel up to a large headcut, which will be filled with 7-ft x 15-ft of ¼ and ½ Ton RSP.

32. PM 82.81: 24-in and 12-in CSP

Work at this location will replace the existing 12-in CSP downdrain with a new 12-in CSP or HDPE downdrain with anchor assemblies, line existing cross-culvert with either PVC or profile wall HDPE, and place 6-ft x 12-ft of ½ Ton RED at outlet.

33. PM 83.18: 30-in CSP

Work at this location will remove failed riser, place new 30-in CSP extension and riser on inlet side, line existing CSP culvert and new CSP extension with solid wall HDPE plastic pipe liner, and grout entire annular void between host and liner pipes. Remove existing downdrain and place new 30-in CSP downdrain with a CSP slip joint and pile anchorage system and anchor assemblies. Maintain existing RSP at culvert outlet.

34. PM 83.25: 1950 mm (78 in) CSP

Work at this location will remove existing woody debris from upstream of the trash rack. Line existing cross-culvert with new CSP or welded steel pipe (WSP) liner, grout entire annular void between host and liner pipes, remove and replace the last 20-ft of 54-in CSP downdrain, invert pave the existing downdrain.

35. PM 84.14: 36-in CSP

Work at this location will place new SFES at the inlet, remove existing CSP downdrain and place new 8-in CSP downdrain with anchor assemblies.

36. PM 84.52: 42-in CSP

Work at this location will remove existing sediment in cross-culvert, place profile wall HDPE plastic pipe liner, grout entire annular void between host and liner pipe, remove concrete collar and elbow, place new CSP extension (approximately 3-ft) with new CSP elbow and slip joint. Place new section of 42-in CSP downdrain between new slip joint elbow and existing downstream downdrain.

Surrounding Land Uses and Setting

35 of the 36 culverts are located in rural, agricultural areas along US 101. Culvert # 1 at PM 46.24 is located in the City of Willits. Located at the southern edge of the project area, Willits is a small, rural city. There are very few structures near any of the projects sites so impacts to the surrounding community are expected to be minimal.

The majority of the proposed project will take place within the existing right-of-way. Permanent drainage easements will be needed at the following four systems: System #1 at PM 46.24, System # 3 at PM 50.18, System #17 at PM 74.70, and System #23 at PM 79.88. Temporary construction easements will be needed at the following three systems: System #4 at PM 50.41, System #19 at PM 76.62, and System #22 at PM 79.79.

Permits and Approvals Needed

Upon completion of final design for this project, the following agencies will be contacted in order to obtain their jurisdictional permits or approvals:

- United States Army Corps of Engineers (USACE): Clean Water Act of 1977, Section 404 Permit
- North Coast Regional Water Quality Control Board (NCRWQCB): Clean Water Act of 1977, Section 401 Certification
- Notify North Coast Regional Water Quality Control Board (NCRWCQB) a minimum of 30-day prior to construction to obtain coverage for the proposed project under the Statewide National Pollutant Discharge Elimination System (NDPES) permit for construction activities.
- California Fish and Game Code (CDFG) 1602 Streambed Alteration Agreement
- National Marine Fisheries Service (NMFS) Section 7 Informal Consultation

Zoning

The zoning at site #1 in the City of Willits is Community Commercial. The remaining zoning throughout the project is a combination of: Rural Residential, Agricultural, Range Land, Upland Residential, Rural Community, Forest Lands, and Remote Residential.

INDEX OF PLANS

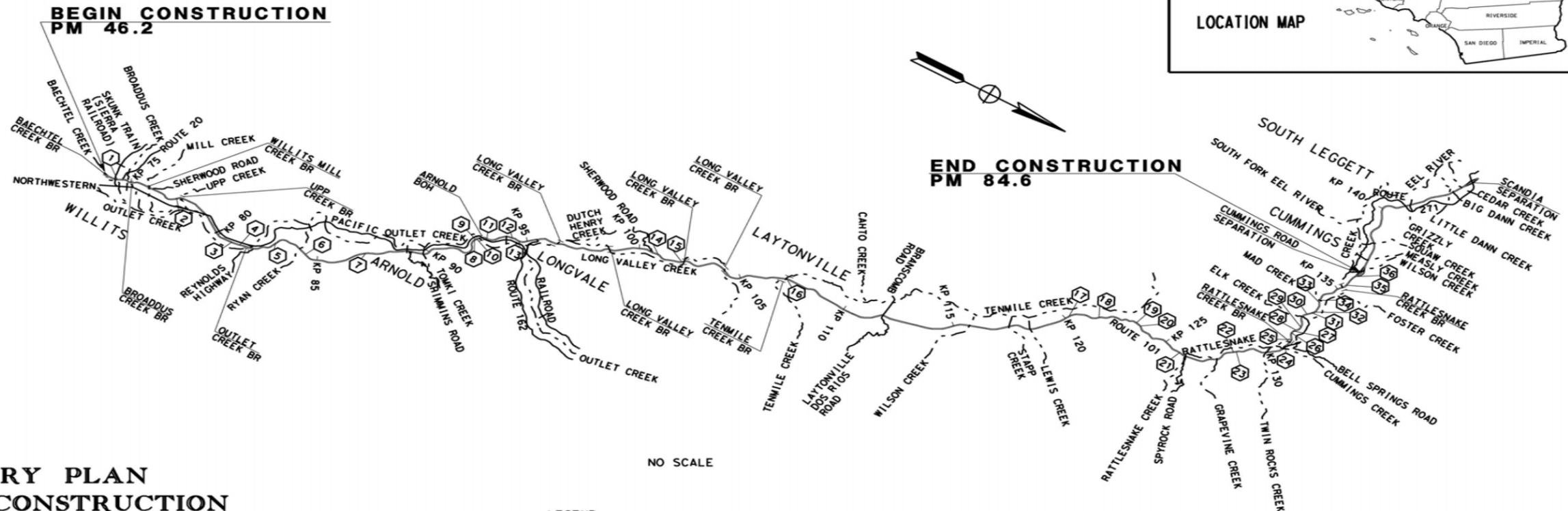
CULVERT IDENTIFICATION

NO.	PM
1	46.24
2	48.00
3	50.18
4	50.41
5	51.42
6	52.44
7	54.20
8	57.54
9	57.58
10	57.63
11	57.87
12	58.59
13	58.82
14	62.69
15	63.41
16	66.50
17	74.70
18	75.55
19	76.62
20	76.78
21	78.18
22	79.79
23	79.88
24	81.30
25	81.56
26	81.80
27	81.88
28	81.88
to	81.99
29	82.07
to	82.14
30	82.63
31	82.77
32	82.81
33	83.18
34	83.25
35	84.14
36	84.52

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

ON ROUTE 101 FROM 0.3 MILES NORTH OF BAECHTEL CREEK BRIDGE IN WILLITS
TO 0.1 MILES SOUTH OF CUMMINGS ROAD UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PRELIMINARY PLAN
NOT FOR CONSTRUCTION

NO SCALE

LEGEND

(N) CULVERT NUMBER

LOCATION MAP
01-MEN-101
PM 46.2/84.6
EA 01-402800

PROJECT ENGINEER _____ DATE _____
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

CONTRACT NO. _____

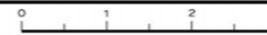


THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO CONTRACTORS."

BORDER LAST REVISED 3/1/2007

CALTRANS WEB SITE IS: HTTP://WWW.DOT.CA.GOV/

RELATIVE BORDER SCALE IS IN INCHES



USERNAME => #USER
DGN FILE => #REQUEST

CU 00000

EA 00000

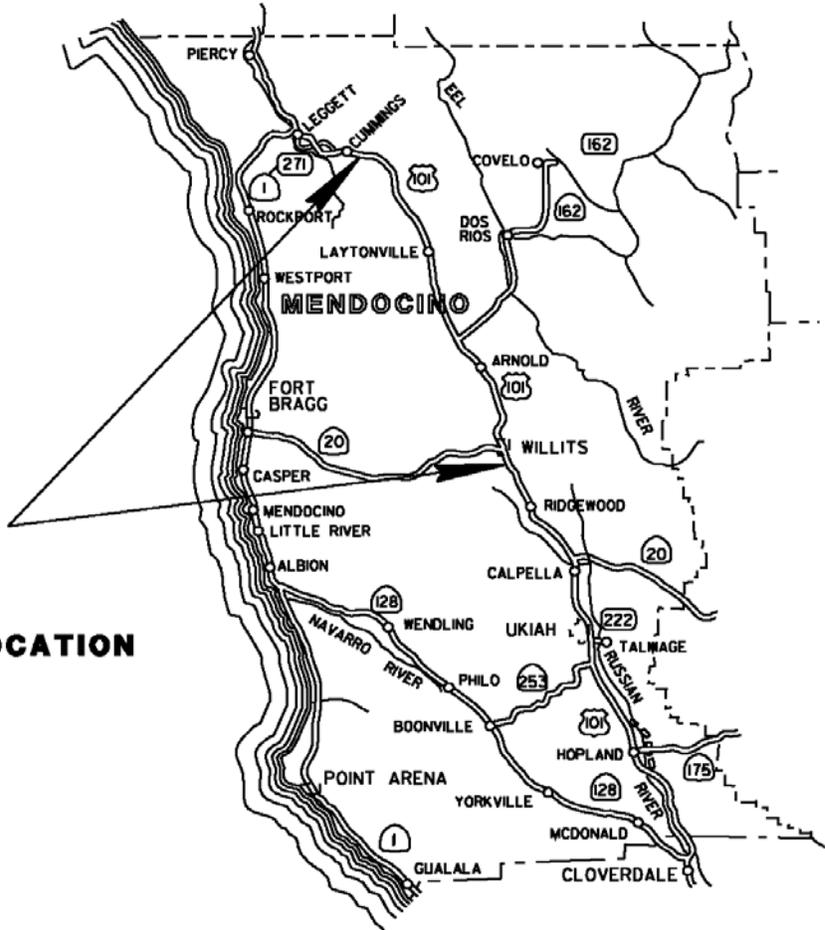
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00-00-00 TIME PLOTTED #> #TIME



No Scale

PM 46.2/84.6

PROJECT LOCATION



VICINITY MAP

1-Men-101-PM 46.2/84.6

01-402800

Culvert Rehabilitation

Project Vicinity Map

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

<input type="checkbox"/>	Aesthetics
<input type="checkbox"/>	Agricultural Resources
<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources
<input type="checkbox"/>	Cultural Resources
<input type="checkbox"/>	Geology/Soils
<input checked="" type="checkbox"/>	Hazards and Hazardous Materials
<input checked="" type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning
<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing
<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation/Traffic
<input type="checkbox"/>	Utilities/Service Systems
<input type="checkbox"/>	Mandatory Findings of Significance

Impacts Checklist

The impacts checklist starting on the next page identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. The checklist is followed by a focused discussion of biological, hazardous waste, and hydrology/water quality issues relating to this project.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	----------------------------------------------	------------------------------	-----------

I. AESTHETICS — Would the project:

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determination in this section is based on the Visual Impact Assessment, October 2007.

II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on various field reviews in 2007.

III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Air Quality Report, October 2007.

IV. BIOLOGICAL RESOURCES — Would the project:

- | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion of impacts starts at the Biology section of this Initial Study.

- | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion of impacts starts at the Biology section of this Initial Study.

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	----------------------------------------------	------------------------------	-----------

Discussion of impacts starts at the Biology section of this Initial Study.

- | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Natural Environmental Study (NES), April, 2009. Discussion of impacts start at the Biology section of this initial study.

V. CULTURAL RESOURCES — Would the project:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“No Impact” determinations in this section are based on the Historic Property Survey Report, January 2008.

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: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault | | | | |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	----------------------------------------------	------------------------------	-----------

Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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ii) Strong seismic ground shaking?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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iii) Seismic-related ground failure, including liquefaction?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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iv) Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on conversations with Project Engineer December 2008.

VII. 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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 that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Discussion of impacts starts at the Hazardous Waste section of this Initial Study.

Additionally, low levels of metal contamination from adjacent, historical manufacturing activities may be present at PM 46.24. If present, special provisions will be added to the contract language to protect construction workers from exposure. The potential presence from the adjacent historical manufacturing activities has been remediated under regulatory oversight and the potential for low levels of residual metals contamination is considered 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 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?

“No Impact” determination in this section is based on review of the Amended Initial Site Assessment August 2007. Discussion of impacts start at the Hazardous Waste section of the Initial Study.

VIII. HYDROLOGY AND WATER QUALITY —

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Discussion of impacts starts at the Water Quality section of this Initial Study.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) 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)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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 that would result in substantial erosion or siltation on- or offsite?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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 that would result in flooding on- or offsite?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Otherwise substantially degrade water quality?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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j) Result in inundation by a seiche, tsunami, or mudflow?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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“No Impact” determinations in this section are based on the Water Quality Report March 2009 and the Floodplain Analysis June 2007 . Discussion of impacts start at the Water Quality section of the Initial Study.

IX. 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 the 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?

“No Impact” determinations in this section are based on conversations with Project Engineer, December 2007.

X. 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?

“No Impact” determinations in this section are based on conversations with Project Engineer 2008.

XI. 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 applicable standards of other agencies?

- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

- c) A substantial permanent increase in ambient noise

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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levels in the project vicinity above levels existing without the project?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the Noise Report, October 2007.

XII. 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)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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“No Impact” determinations in this section are based on the scope and location of the project.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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XIII. PUBLIC SERVICES —

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the scope and location of the project.

XIV. RECREATION —

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on the scope and location of the project.

XV. TRANSPORTATION/TRAFFIC — Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” determinations in this section are based on conversations with Project Engineer, December 2008.

XVI. UTILITY AND SERVICE SYSTEMS — Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Comply with federal, state, and local statutes and regulations related to solid waste?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"No Impact" determinations in this section are based on conversations with Project Engineer, December 2008.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE —

a) Does the project have the potential to 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Affected Environment, Environmental Consequences, and Mitigation Measures

Biological Resources

PLANT SPECIES

Regulatory Setting

The US Fish and Wildlife Service (USFWS) and California Dept. of Fish and Game (CDFG) share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFG fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

Due to the minimal impacts of this project outside of heavily disturbed areas, relatively few sites occur in the project footprint that are suitable for sensitive species. Sites were visually inspected for suitable habitat as well as for presence of any sensitive plants.

Environmental Consequences

At location # 19 (PM 76.62), *Navarretia leucophala bakeri*, a California Native Plant Species list 1B plant, was found within the Environmental Study Limit (ESL).

Avoidance and Minimization Measures

The area in which the plant occurs is easily avoidable and there will be no impacts to the area with the implementation of the following measures.

- **01:** Establish Environmentally Sensitive Areas
- **02:** Pre-Construction Surveys for Special Status Plants
- **03a:** Restrict Timing of Vegetation Removal
- See the full text of the avoidance and minimization measures at the end of the biology section.

ANIMAL SPECIES

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The US Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the CDFG are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed below in the Threatened and Endangered Species section. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- State laws and regulations pertaining to wildlife include the following:
 - California Environmental Quality Act
 - Sections 1600 – 1603 of the Fish and Game Code
 - Section 4150 and 4152 of the Fish and Game Code

Migratory Birds

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). If impacts to active nests or individual birds are expected, Caltrans shall consult with USFWS and CDFG regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918.

Affected Environment

The following natural communities may provide habitat for migratory birds.

Ruderal

A ruderal species is a plant species that is first to colonize disturbed lands. The disturbance may be natural or man-made. Ruderal communities occur in areas of disturbance, such as along roadsides, trails, parking lots, etc. The communities are subjected to ongoing or past disturbances. Most of the species that occur in these disturbed areas are various annual grasses and forbs of Eurasian origin, many of which also occur in grasslands. Ruderal vegetation within each study area are dominated by annual grasses including soft chess, ripgut brome, wild oat, rattail fescue, and rattlesnake grass, as well as annual forbs including vetch, and yellow start thistle.

Annual Grassland

Annual, non-native, invasive plants have replaced most native grassland in Mendocino County. Cattle grazing in areas that might otherwise develop forest or Chaparral communities often maintain grasslands in Mendocino County. Dominant species in the areas include Rip-gut brome, wild oat, Italian ryegrass, and many other natural grasses.

Environmental Consequences

The removal of woody shrubs (Manzanita and Coyote Bush) may be required for the slope repair and permanent placement of rock slope protection (RSP). Additionally, ruderal and grassland habitat may be temporarily disturbed by equipment access and staging, and may also require shrub and tree removal for access to the highway culvert systems. The habitat types may provide nesting substrates for migratory birds species.

Avoidance and Minimization Measures

Nesting or attempted nesting by migratory birds is anticipated to occur between, but is not limited to, February 15th and September 1st. The following measures 03, 03a, and 03b shall be observed to avoid potential impacts to nesting bird species.

- **03:** Comply with Migratory Bird Treaty Act (MBTA)
- **03a:** Restrict Timing of Vegetation Removal
- **03b:** Pre-Construction Nesting Bird Surveys
- See the full text of the avoidance and minimization measures at the end of biology section.

Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 United States Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend. Under Section 7 of this act, federal agencies, such as the Federal

Highway Administration, are required to consult with the US Fish and Wildlife Service and the State Oceanic and Atmospheric Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFG is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the California Department of Fish and Game. For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Four threatened or endangered species are found in the project: Foothill Yellow-Legged Frogs, Coho salmon, Chinook salmon, and Steelhead.

Environmental Consequences

FOOTHILL YELLOW-LEGGED FROGS

The foothill yellow-legged frog is widespread in Mendocino County and has been found within the ESL at several drainages. Work within the drainages where the frog may be found will temporarily impact habitat for this species, however, direct impacts to foothill yellow-legged frogs are not expected to occur. Avoidance and minimization measures **04**, **05**, and **08** shall be observed to minimize potential impacts to foothill yellow legged frogs.

ANADROMOUS SALMONIDS

Anadromous salmonids (Coho salmon, Chinook salmon and Steelhead) are capable of

entering the projected work areas at PM 66.50, however, the proposed work window is anticipated to allow all construction activities to be conducted while the creeks have no flowing or standing water in the work area. Ten Mile Creek at PM 66.50 dries completely during the late summer and early autumn months of most years. This lack of work within flowing or standing water within the project ESL will allow Caltrans to minimize impact on anadromous salmonids.

Due to the placement of RSP at PM 66.50 approximately 0.003 acre of fill will be placed within fish-bearing waters. Depending on seasonal flows, de-watering of the streambed or culvert course and/or a temporary stream diversion may be necessary. A water-diversion at these sites may require the use of a hose and pump system to move water past the project area, however, this is unlikely due to the fact that Ten Mile Creek dries at PM 66.50. Should de-watering be deemed necessary, water pumps associated with de-watering of the sites shall be screened to NMFS and North Coast Regional Water Quality Control Board (NCRWQCB) specifications to avoid the intake of fish. A temporary sediment-settling basin will also be constructed downstream of the activity. All discharge waters associated with the de-watering activities will be pumped into the constructed basin before being allowed to re-enter project area drainages.

As the culverts at postmiles 46.24, 54.20, 57.54, 57.58, 57.63, 58.82, 58.59, 79.88 and 81.30 are inaccessible to anadromous salmonids, only riparian impacts are expected to occur to Essential Fish Habitat (EFH). The implementation of Caltrans' Best Management Practices and avoidance and minimization measures **01** and **02**, will minimize impacts to adjacent fish-bearing streams.

Adverse impacts to anadromous salmonids are possible if these species are present within the affected tributary during project activities. Areas suitable for salmonid spawning are available at the project site, and may be affected by the proposed project. Adverse impacts to anadromous salmonids will be avoided and minimized by observing the following measures:

- **01**-Designate Environmentally Sensitive Areas
- **02**-Pre-Construction Surveys for Special Status Plants
- **04**- Restrict Timing of In-stream Activities
- **05**- Minimize Disturbance to Jurisdictional Waters
- **06**- Containment Measures/Best Management Practices

EESSENTIAL FISH-HABITAT IMPACTS

Essential Fish Habitat

Freshwater Essential Fish Habitat for chinook salmon, coho salmon and steelhead consists of four major components, (1) spawning and incubation; (2) juvenile rearing; (3) juvenile migration corridors; and (4) adult migration corridors and adult holding habitat. Important features of essential habitat include adequate (1) substrate composition; (2) water quality (e.g. dissolved oxygen, nutrients, temperature, etc.);

(3) water quantity, depth and velocity; (4) channel gradient and stability; (5) food; (6) cover and habitat complexity (e.g. large woody debris, pools, channel complexity, aquatic vegetation, etc.); (7) space; (8) access and passage; and (9) floodplain and habitat connectivity.

Vegetation Removal

The removal or trimming of woody vegetation along anadromous salmonid bearing streams is expected to be required for the repair of the damaged culverts at postmiles 46.24, 57.54, 58.82, 66.50, 79.79, 79.88 and 81.30. Access to riparian corridors will also be required at postmiles 54.20, 57.54, 57.58, 57.63 and 58.59; however, no tree trimming or removal is anticipated. The proposed removal and trimming of woody vegetation could potentially negatively impact EFH by impacting water quality (dissolved oxygen and temperatures) and cover at postmiles 46.24, 57.54, 58.82, 66.50, 79.79, 79.88 and 81.30.

Adverse impacts due to vegetation removal will be avoided and minimized by observing the following measures:

- **01-**Designate Environmentally Sensitive Areas
- **04-** Restrict Timing of In-stream Activities
- **05-** Minimize Disturbance to Jurisdictional Waters
- **06-** Containment Measures/Best Management Practices
- See the full text of the avoidance and minimization measures at the end of the biology section.

Jurisdictional Waters

The streams flowing through the culverts at postmiles 46.24, 58.82, 66.50, 79.88, and 81.30 qualify as jurisdictional “other waters” of the United States and these “other waters” will thus be affected by the proposed project. Additionally, construction impacts may extend up to 20-ft from the ends of these culverts which will lead to additional temporary impacts to jurisdictional waters and “other waters” of the US. Due to the repair of concrete scour at the culvert at PM 58.82 and the placement of RSP and a rock wier at PM 66.50 approximately 0.003 acre of fill will be placed within jurisdictional “other waters” of the United States.

Depending on seasonal flows, de-watering of the streambed or culvert course and/or a temporary stream diversion may be necessary at PM 66.50. A water-diversion at this site may require the use of a hose and pump system to draw water through the project area. Any intakes that may be required for water pumps associated de-watering of sites shall be screened to NMFS and North Coast Regional Water Quality Control Board (NCRWQCB) specifications to avoid the intake of fish. If de-watering of the site is deemed necessary, a temporary sediment-settling basin will be constructed downstream of the activity. All discharge waters associated with the de-watering activities will be pumped into the constructed basin before being allowed to re-enter project area drainages.

Work within jurisdictional waters could potentially negatively affect EFH by impacting (1) substrate composition and (3) water quality (dissolved oxygen and temperature). Work in jurisdictional waters at PM 66.50 will positively impact EFH by improving (3) depth and velocity, (4) channel gradient and stability, (6) cover and habitat complexity (pools and channel complexity), (8) access and passage and (9) floodplain and habitat connectivity

Adverse impacts to jurisdictional waters will be avoided and minimized by observing the following measures:

- **01-**Designate Environmentally Sensitive Areas
- **04-** Restrict Timing of In-stream Activities
- **05-** Minimize Disturbance to Jurisdictional Waters
- **06-** Containment Measures/Best Management Practices
- See the full text of the avoidance and minimization measures at the end of the biology section.

Because federally listed species could be affected by the proposed project, consultation with federal resource agencies is necessary in accordance with legal requirements set forth under section 7 of the Federal Endangered Species Act (“FESA”; 19 USC. 1536c). Ten Mile Creek, Outlet Creek, Rattlesnake Creek and Baechtel Creek have been designated as Critical Habitat for northern California ESU Steelhead, California coastal ESU Chinook salmon and central California coast ESU Coho salmon.

Enacted in 1976, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) is the primary law governing marine and anadromous fisheries management in the federal waters of the United States. Section 305(b)(2)-(4) of the MSA outlines a process for National Marine Fisheries Service (NMFS) to comment on activities proposed by Federal action agencies that may adversely impact areas designated as “Essential Fish habitat (EFH)”. NMFS defines “Essential Fish Habitat (EFH) as ““those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (16 USC. 1802(10)).

The MSA requires Federal action agencies that authorize, fund, or conduct activities that "may adversely affect" EFH to work with NMFS to develop measures that minimize damage to EFH. This consultation process is usually integrated into existing environmental review procedures in accordance with the National Environmental Policy Act, Endangered Species Act, or Fish and Wildlife Coordination Act, to provide the greatest level of efficiency. Because potentially fish bearing waters could be impacted by the proposed MEN-101 Drainage Repair Project at Ten Mile Creek and riparian vegetation could be impacted along Outlet Creek, Rattlesnake Creek and Baechtel Creek as well as several tributary’s to Outlet Creek, an Essential Fish Habitat Assessment will be prepared in accordance with legal requirements set forth under sections 305(b)(2) and 305(b)(4)(B) of the MSA.

The ordinary high water mark delineates the limits of the all of the Waters of the United States located within the project ESL. A Section 404 Clean Water Act Permit will be obtained from the United States Army Corps of Engineers (USACE) for this project.

Because state listed species could potentially occur within the proposed project area, consultation with state resource agencies was necessary in accordance with legal requirements set forth under sections 2050-2098 of the California Fish and Game Code. The following summarizes Caltrans' determinations for state listed species that may occur within the project vicinity:

- 1) As discussed in this document ("Project Effects"), the proposed activities would result in some permanent or temporary loss of habitat, reductions in habitat quality, or disturbances in the reproductive, dispersal or foraging opportunities for the following species. The scale of this reduction, loss, and/or disturbance is small within the analysis area, and design features and avoidance and minimization measures exist to reduce both direct and indirect impacts. Also, the proposals are consistent with conservation strategies and direction as provided by various resource agencies, and Caltrans and Federal Highways Administration (FHWA) policies. Therefore, it is Caltrans' determination that the proposed activities "**may affect but is not likely to adversely affect**" individuals of the following federally listed threatened or endangered, candidate, or proposed species or their critical habitat:

Central California Coast Salmon (FE)

- 2) Due to the project area being outside the range of the species, the lack of suitable habitat or habitat components in the project area, the lack of detection during recent Caltrans surveys or because the project would not harm individuals or alter the species' habitat, it is Caltrans' determination that the proposed project will have "**no affect**" on the following California State listed or proposed listed threatened or endangered species:

Red Mountain Catchfly (*Silene campanulata ssp. Campanulata, CE*)

North Coast Semaphore Grass (*Pleuropogon hooverianus, CT*)

Milo-Bakers Lupine (*Lupinus milo-bakeri, CT*)

Roderick's Fritillary (*Fritillaria roderickii, CE*)

Avoidance and Minimization Measures

Adverse impacts to anadromous salmonids are possible if these species are present within the affected tributary during project activities. Areas suitable for salmonid spawning are available at the project site, and may be affected by the proposed project. Adverse impacts to anadromous salmonids will be will avoided and minimized by observing the following measures:

- **01:** Establish Environmentally Sensitive Areas

- **04:** Restrict Timing of In-Stream Activities
- **05:** Minimize Disturbance to Jurisdictional Waters
- **06:** Containment Measures Best Management Practices
- See the full text of the avoidance and minimization measures at the end of the biology section.

Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 United States Code 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the US Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, primarily the CDFG and the Regional Water Quality Control Boards regulate wetlands and waters. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the CDFG before beginning construction. If the CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The tops of the stream or lake banks, or the outer edge of riparian vegetation usually define the CDFG's jurisdictional limits,

whichever is wider. Wetlands under jurisdiction of the Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The NCRWCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The NCRWQCBs also issue water quality certifications in compliance with Section 401 of the Clean Water Act. Please refer to the Water Quality section for additional details.

Affected Environment

Jurisdictional Waters of the United States

A delineation of wetlands and other waters of the United States have been conducted for this project. The other waters comprise nine perennial semi-permanent streams, five intermittent streams, and 13 ephemeral drainages. The wetlands comprise four floodplain wetlands and two seep wetlands. An additional five ephemeral drainages were determined to be isolated and potentially nonjurisdictional.

Environmental Consequences

Table 2: Summary of Impacts on Wetlands and Other Waters for the US Highway 101 Mendocino County Culvert Rehabilitation Project

Habitat Type	Area in ESL (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Jurisdictional Status^a
Wetlands				
Floodplain Wetland	0.432	0.0000	0.0631	Jurisdictional Wetland
Seep Wetland	0.002	0.0000	0.0000	Jurisdictional Wetland
Total Wetlands	0.434	0.0000	0.0631	
Other Waters				
Perennial Stream	1.210	0.0044	0.0670	Jurisdictional Water of the US
Intermittent Stream	0.329	0.0033	0.0197	Jurisdictional Water of the US
Ephemeral Drainage	0.074	0.0045	0.0298	Jurisdictional Water of the US
Culvert	0.305	0.0000	0.1838	Jurisdictional Water of the US
Total Other Waters	1.918	0.0122	0.3003	
Total Jurisdictional	2.352	0.0122	0.3634	

^a Preliminary jurisdictional status pending verification by USACE, San Francisco District.

Avoidance and Minimization Measures

Adverse impacts to jurisdictional waters will be avoided, minimized, or mitigated by observing the following measures:

- **01:** Establish Environmentally Sensitive Areas
- **05:** Minimize Disturbance to Jurisdictional Waters
- **06:** Containment Measures Best Management Practices
- **08:** Revegetation of Disturbed Habitat
- **09:** Comply with Permit Restrictions for Permanent Impacts
- See the full text of the avoidance and minimization measures at the end of the biology section.

Affected Environment

Non-Jurisdictional Waters

A delineation of non-jurisdictional waters including riparian areas and non-jurisdictional waters of the state has been conducted for this project. These areas comprise three isolated ephemeral drainages and 39 riparian areas.

Environmental Consequences

Table 3. Summary of Impacts on Non-jurisdictional Waters for the US Highway 101 Mendocino County Culvert Rehabilitation Project

Habitat Type	Area in ESL (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Jurisdictional Status^a
Nonjurisdictional Features				
Ephemeral Drainage (isolated)	0.015	0.0000	0.0014	Nonjurisdictional
Riparian Woodland/Scrub (non-wetland)	3.742	0.0023	0.5669	Nonjurisdictional
Total Nonjurisdictional	3.757	0.0023	0.5683	

^a Preliminary jurisdictional status pending verification by USACE, San Francisco District.

Avoidance and Minimization Measures

Adverse impacts to non-jurisdictional waters will be avoided and minimized by observing the following measures:

- **01:** Establish Environmentally Sensitive Areas
- **06:** Containment Measures/Best Management Practices
- **08:** Revegetation of Disturbed Habitats
- **09:** Comply with Permit Restrictions for Permanent Impacts
- See the full text of the avoidance and minimization measures at the end of the biology section.

Avoidance and Minimization Measures (full text)

01: Establish Environmentally Sensitive Areas

- Sensitive natural resource features occurring outside of the expected construction impact area will be avoided or minimized by designating these features as “environmentally sensitive areas” (ESAs) on project plans and in project specifications.
- ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts.
- Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials).
- ESA provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.

02: Pre-Construction Surveys for Special Status Plants

- The proposed storm damage repair project may result in effects to vegetation communities in which sensitive plant species may occur. Surveys for special status plant species have been conducted for all locations.
- If special status plant species are detected during pre-construction surveys, the CDFG and/or USFWS will be consulted after special status plant surveys are complete to insure that potential impacts are avoided or minimized, and that project activities do not inhibit long-term conservation efforts for the survival of special status plant species.

03: Comply with Migratory Bird Treaty Act (MBTA)

- Implementation of the proposed culvert repair project would result in the temporary disturbance and permanent loss of wooded, grassland, and structural habitat that provides potential breeding and foraging habitat for a number of bird species protected under the MBTA, or classified as California species of special concern, California fully protected species, or breeding raptors. The following measures are recommended to reduce project impacts on bird species:
- Minimize removal of native vegetation by locating staging areas and access routes in previously disturbed areas and establishing ESAs;

03a: Restrict Timing of Vegetation Removal

- If feasible, removal of vegetation shall be conducted in the fall and winter (between September 1st and February 14th) after fledging and before the initiation of breeding activities.

03b: Pre-Construction Nesting Bird Surveys

- If vegetation removal during migratory non-nesting season is determined unfeasible, then pre-construction bird nest surveys shall be performed in spring to determine the location of nest sites within the proposed storm damage repair project areas.
- If active bird nests are found, Caltrans shall consult with USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918, and with CDFG to comply with provisions of the Fish and Game Code of California.
- If a lapse in project related work of fifteen (15) days or longer occurs, another survey and, if required, consultation with USFWS and CDFG will be required before the work can be reinitiated.

04: Restrict Timing of In-Stream Activities

- To avoid direct impacts to fisheries resources and to foothill yellow-legged frogs, no work will be performed within streams and drainages within the ESL until flows are at their seasonal low or have ceased and the streambed is dry. It is predicted that in most years, the seasonal low-flow or dry period of these

drainages occurs between June 15th and October 15th; however, work within these drainages will be subject to stream conditions and permit restrictions.

05: Minimize Disturbance to Jurisdictional Waters

- All waters and wetlands adjacent to the construction zone that will not be filled as a result of the project will be designated as ESAs, and shall be fenced and signed to assure no inadvertent damage to these resources will occur.
- Disruption of the wetlands, streambeds, and adjacent riparian corridors will be minimized, and vegetation removal shall be limited to the absolute minimum amount required for construction
- Depending on seasonal flows, de-watering of the streambed or culvert course and/or a temporary stream diversion may be necessary. Any intakes that may be required for water pumps associated with wetting/irrigation/de-watering of sites shall be screened to NMFS and NCRWQCB specifications to avoid the intake of fish. If de-watering of the site is deemed necessary, a temporary sediment-settling basin will be constructed downstream of the activity. All discharge waters associated with the de-watering activities will be pumped into the constructed basin before being allowed to re-enter project area drainages.
- Permit Restrictions: The drainage repair project will impact jurisdictional waters of the United States and as such will require the use of a Clean Water Act section 404 permit from the Army Corps of Engineers and a section 401 Water Quality Certification from the California NCRWQCB. Because the work will take place below the top of the streambank, a 1602 Streambed Alteration Agreement will also be required from CDFG. Consultation with NMFS will also be required.

06: Containment Measures/Best Management Practices

- Caltrans Standard Specifications require the contractor to submit a Storm Water Pollution Prevention Plan (SWPPP). This plan must meet the standards and objectives to minimize water pollution impacts set forth in section 7-1.01G of Caltrans Standard Specifications. These standards/objectives are at times referred to as Best Management Practices (BMPs).
- Measures will be employed to prevent any construction material, debris, or petroleum products associated with equipment from entering surface waters. BMPs for erosion control will be implemented and in place prior to, during, and after construction in order to prevent silt, sediment, backfill, or petroleum products from entering surface waters.
- The SWPPP must also be in compliance with the goals and restrictions identified in the SWQCBs Basin Plan for the project area.

07: Noxious Weed Prevention

- Locate and use weed-free project staging areas. Avoid or minimize all types of travel through weed-infested areas, or restrict to those periods when the spread of seed or propagules is least likely.

- Remove mud, dirt, and plant parts from project equipment before moving equipment into a project area. Revegetate disturbed soil in a manner that optimizes plant establishment for that specific site.
- Revegetation may include topsoil replacement, planting, seeding, fertilization, liming, and weed-free mulching as necessary.
- Only native seed material shall be used; seed, hay and straw used in erosion control applications shall be certified weed-free or weed-seed free.

08: Revegetation of Disturbed Habitats

- Prior to vegetation removal, the area will be surveyed by a qualified biologist for a complete accounting of species and their quantities present within the construction limits.
- Upon completion of project construction, streambanks will be permanently stabilized, and the riparian areas will be re-planted with appropriate native species. Tree and shrub species that will be used for the restoration will include willow, alder, and cottonwood. Stream channels will be re-graded to preconstruction conditions.
- A restoration and monitoring plan will be prepared by the Caltrans Landscape Architecture Branch and will be submitted for approval by the appropriate agencies prior to project permitting. The restoration plan will outline and detail all planting and erosion-control activities and all associated proposed monitoring activities (including the length and timing of monitoring, success criteria, remedial actions, and documentation).
- Only native seed material shall be used; seed, hay and straw used in erosion control applications shall be certified weed-free or weed-seed free.

09: Comply with Permit Restrictions for Permanent Impacts:

- The drainage repair project will impact jurisdictional waters of the United States and as such will require the use of a Clean Water Act section 404 permit from the Army Corps of Engineers and a section 401 Water Quality Certification from the California NCRWQCB. Because some of the work will take place below the top of the streambank, a 1602 Streambed Alteration Agreement will also be required from CDFG. All permanent impacts will be minimized through conditions identified by the resource agencies by revegetation of riparian habitat in Caltrans right-of-way.

Hazardous Waste

Regulatory Setting

Many state and federal laws regulate hazardous materials and hazardous wastes. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental

Response, Compensation and Liability Act of 1980. The purpose of the Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved. Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

An Initial Site Assessment (ISA) was conducted to include the area on US Highway 101 in Mendocino County. No hazardous waste Cortese listed sites are known to exist within the project limits, although one Cortese listed site is known to exist adjacent to the project limits and Caltrans right of way at PM 26.24.

A Preliminary Site Investigation (PSI) for Aerially Deposited Lead (ADL) and a Naturally Occurring Asbestos (NOA) survey were previously conducted on US Highway 101, which included the full limits for this project.

Contaminated Site

REMCO, a site under previous regulatory oversight is located immediately adjacent to location PM 46.24. Though the REMCO facility has previously been remediated metal contaminated water was historically discharged near this culvert location. It is not anticipated that hazardous waste contamination is still present at this location however, a Preliminary Site Investigation will be conducted at location PM 46.24

prior to construction to verify this assumption. If needed, contaminated soil will be removed prior to construction activities.

Environmental Consequences

Soil and vegetation disturbance will occur. No soil will be exported outside the project limits during construction of the proposed project.

Avoidance and Minimization Measures

Aerially Deposited Lead

Since ADL is potentially present and the soil will be disturbed, Non-Standard Special Provisions (NSSP) for excavation and handling are required. The NSSPs should address CCR Title 8, Section 1532.1, Lead, which includes a Lead compliance plan and Lead Awareness Training.

Naturally Occurring Asbestos

Since NOA is present within the project limits Non-Standard Special Provisions (NSSP) for excavation and handling are required. The NSSPs should address worker safety, NOA handling, and regulatory compliance.

Contaminated Site

A PSI will be conducted within Caltrans right of way at PM 46.24 to verify that the REMCO site has not impacted Caltrans right of way.

Storm Water/Water Quality

Regulatory Setting

Section 401 of the Clean Water Act (CWA) requires water quality certification from the SWRCB or from a Regional Board when the project requires a CWA Section 404 permit. Section 404 of the CWA requires a permit from the USACE to discharge dredged or fill material into waters of the United States.

Along with CWA Section 401, CWA Section 402 establishes the NPDES permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The SWRCB adopted a Statewide Construction General Permit (NPDES General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff associated with Construction Activity, Water Quality Order 99-08-DWQ) to address construction projects which result in greater than 5 acres of disturbed soil area (Construction General Permit.) In order to develop a consistent

statewide approach to these new regulations and permit requirements, the Department of Transportation (Department) requested the SWRCB consider adopting a statewide permit that would cover both storm water discharges for MS4 requirements as well as requirements established under the Statewide General Permit for construction activities. As a result, all storm water discharges and non-storm water discharges from all Department properties, facilities, and activities are regulated under Order No. 99-06-DWQ, NPDES No. CAS000003. NPDES Permit, Statewide Storm Water Permit and Waste Discharges requirements for the State of California, Department of Transportation (Caltrans Statewide NPDES Permit.)

In December 2002, the SWRCB adopted a Modification to the Statewide Construction General Permit to incorporate the Phase II Rule requirements enacted by the US Environmental Protection Agency (EPA)(Modification of Water Quality Order 99-08-DWQ). The Modification was adopted to address Federal Regulations (Phase II Rule) that became final on December 9, 1999. The Phase II rule expanded the existing NPDES program to address discharges from construction sites that result in a disturbed soil area equal to or greater than one (1) acre and less than five (five) acres, and to no longer exempt municipalities with populations less than 100,000 people. The Modification established three areas for required coverage 1) MS4s automatically designated by US EPA pursuant to 40 CFR section 122.32(a)(1) because it is located within an urbanized area as defined by the Bureau of Census; 2) Traditional Small MS4s that serve cities, counties, and unincorporated areas that are designated by SWRCB or RWQCBs; and 3) Non-traditional MS4s.

Regional Regulatory Setting

The RWQCB has the authority to implement water quality protection standards through the issuance of permits to protect waters of the State of California. Water Quality Objectives for the North Coast Region are specified in the Water Quality Control Plan for the North Coast Region (Basin Plan) prepared in compliance with the Federal CWA and the State Porter Cologne Water Quality Control Act. The Basin Plan establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of both surface waters and ground water.

A storm water plan is typically required by the RWQCB for the Section 401 Water Quality Certification / Waste Discharge Requirements to address discharges of pollutants to receiving waters. The NCRWQCB's 401 Certification application contains the following language:

PROPOSED STORM WATER TREATMENT MEASURES (Describe the methods proposed to treat storm water runoff from the project site prior to entering the storm drainage system, wetlands, streams, etc. Please include proper design calculations to indicate that the proposed methods will treat runoff from the 85th percentile/24-hour storm event. See Standard Urban Stormwater Mitigation Plan (SUSMP) Guidelines available at:

<http://ci.santa-rosa.ca.us/pworks/other/SW/SRSWManualFinalDraft.pdf>, or upon request.)

Affected Environment

For the purpose of this project, the water quality study limits are located on US Highway 101 from PM 46.2 to 48.2. The project locations are in the Eel River Hydrologic Unit, Upper Main Eel River and South Fork Eel River Hydrologic Areas, Outlet Creek (116.1), Laytonville (111.33), and Benbow Hydrologic Sub-Areas. The receiving waters for the project limits are three parameter wetlands, unnamed ephemeral and perennial tributaries, Outlet Creek, Rattlesnake Creek, and Ten Mile Creek.

Environmental Consequences

There are jurisdictional drainages within the project limits; Section 401 Water Quality Certification/Waste Discharge Requirements or a waiver of Waste Discharge Requirements will be required by the RWQCB. The project does not propose to increase the impervious surface of the highway facility, and therefore will not generate an increase in storm runoff. Given the existing and proposed drainage systems within the project limits and the regional water quality concerns associated with this area, the following water quality concerns were identified related to the project.

- Sediment and other discharges related to construction and operation
- Dredge and fill impacts to jurisdictional waters
- Identification of waters of the state

Avoidance and Minimization Measures

During construction there could be temporary adverse impacts due to increased erosion and sediment transport to receiving waters. The project will be constructed with necessary erosion and water quality control practices to minimize the potential for sedimentation and other construction related impacts through the use of Best Management Practices (BMPs) identified in the Department's Water Quality Handbook, Construction Site BMPs Manual. The Department's approved construction BMPs applicable to this project includes measures for temporary sediment control (e.g. silt fences, fiber rolls, straw bale barriers,) temporary soil stabilization (e.g. hydraulic mulching, hydroseeding, straw mulch,) tracking control (e.g. stabilized construction entrance/exit, stabilized construction roadway,) non-storm water management (e.g. water conservation practices, dewatering operations, paving and grinding operations, temporary stream crossing, clear water diversion, illicit connection/illegal discharge detection and reporting, vehicle and equipment fueling, concrete curing, and concrete finishing,) and water management and materials pollution control (material delivery and storage, material use, stockpile management, spill prevention and control, solid waste management, hazardous waste management, sanitary/septic waste management and liquid waste management.) The Project Engineer will specify specific construction site BMPs to address potential

discharges of grout with concurrence by the Construction Storm Water Coordinator for inclusion in the contract.

The project will result in a disturbed soil area great than one acre, and therefore shall be regulated under the Department's Statewide NPDES Permit, which includes by reference the Statewide Construction General Permit. A Notice of Construction is required for be filed with the NCRWQCB a minimum of 30 days prior to construction to obtain coverage for the project under the Statewide Construction General Permit. To comply with the conditions of the Department's Statewide NPDES Permit, and to address this the Special Provision (SSP) 07-345 will be included as part of the Plans, Specifications, and the Estimates. SSP 07-345 will address water pollution control work and implementation of a Storm Water Pollution Prevention Plan (SWPPP) during construction. Source control issues will be addressed through SSP 07-346. Construction Site Management sets forth handling procedures and BMPs for potential sources not addressed by line items in the contract special provisions.

Storm water from discharges related to operation of the facility can potentially be minimized with the implementation of feasible treatment BMPs to the standard of the Maximum Extent Practicable in accordance with the Department's NPDES Permit. Discussions with the NCRWQCB related to this project have produced agreement that with the exception of Traction Sand Traps, treatment BMPs are outside the cost and scope of this project. In general, culvert rehabilitation provides a long term water quality benefit by significantly reducing the potential for erosion and sedimentation. Construction impacts will be minimized through implementation of the SWPPP.

Although dredge and fill impacts to waters of the State and United States will occur as a result of the project, most impacts will be temporary. There may be some incidental fill at culverts and inlets and outlets, but the fill will usually be rock energy dissipators placed to reduce erosion, thereby acting as a source control BMP. It is likely the RWQCB would require a revegetation plan as part of the 401 Certification application. Coordination with the NCRWQCB regarding waters of the state should occur before submittal of the 401 Certification application to ensure agreement as to which drainages are jurisdictional to avoid project delays.

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January 14, 2005

**TITLE VI
POLICY STATEMENT**

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in black ink that reads "Will Kempton".

WILL KEMPTON
Director

"Caltrans improves mobility across California"

List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

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Mark Melani, Associate Environmental Planner. Contribution: Initial Site Assessment (Hazardous Waste).

Laura Lazzarotto, Landscape Associate. Contribution: Visual Impact Analysis Report, Landscape Architect.

Rene Garcia, Project Engineer. Contribution: Project description, mapping, project impacts and discussions.

Sharon Tang, Air/Noise Specialist. Contribution: Air Quality and Noise Reports.

Alex Arevalo, Transportation Engineer. Contribution: Water Quality Analysis and NPDES Storm Water Coordinator.

Glenn Hurlburt, Transportation Engineer. Contribution: Floodplain Report.

List of Technical Studies that are Bound Separately

Visual Impact Assessment October 2007

Air Quality Report October 2007

Noise Report October 2007

Natural Environmental Study April 2009

Amended Initial Site Assessment August 2007

Water Quality Report March 2009

Historic Property Survey Report January 2008

Floodplain Report June 2007